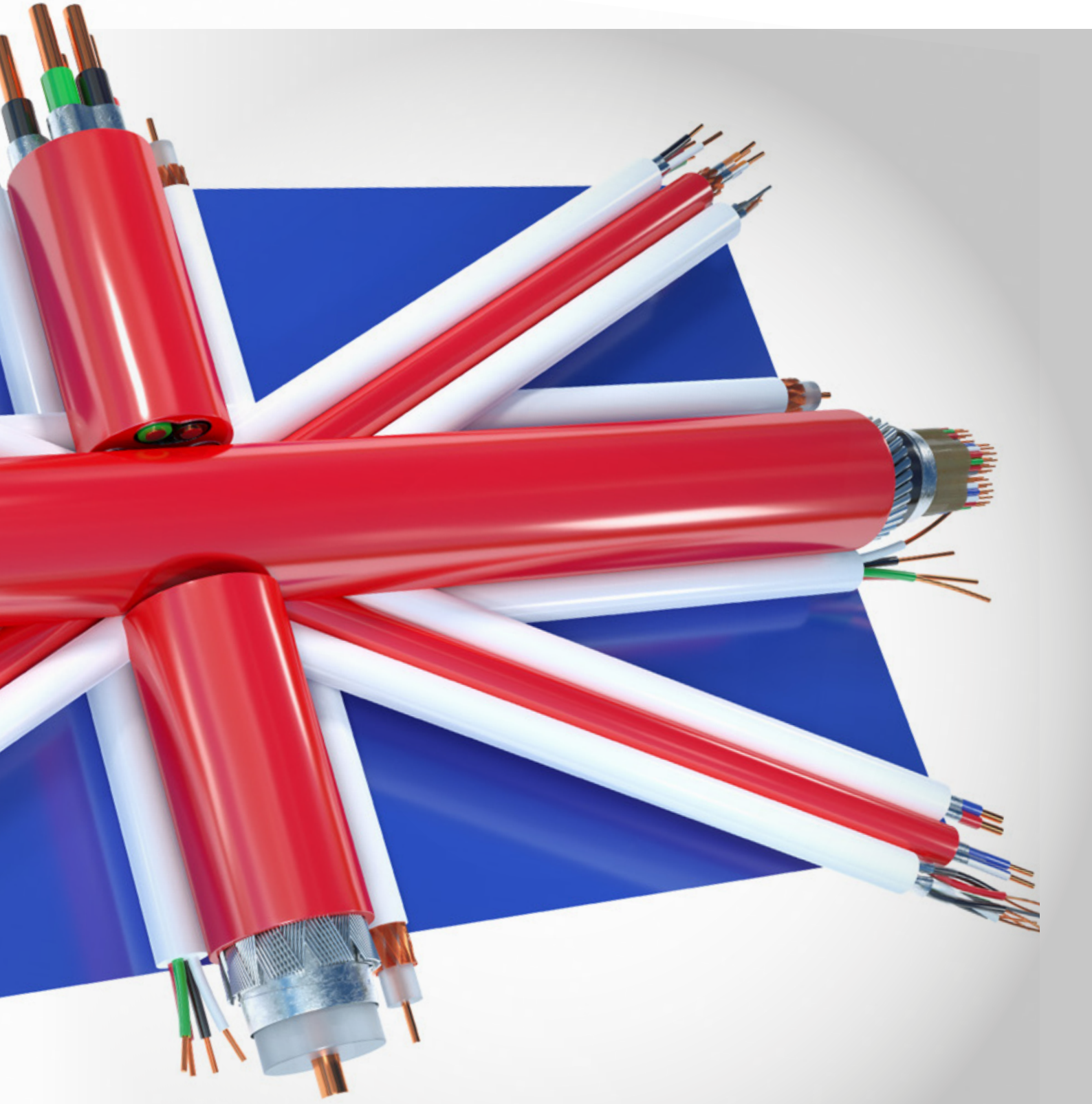
British Cables Company
Product Range Catalogue

BRITISH CABLES COMPANY



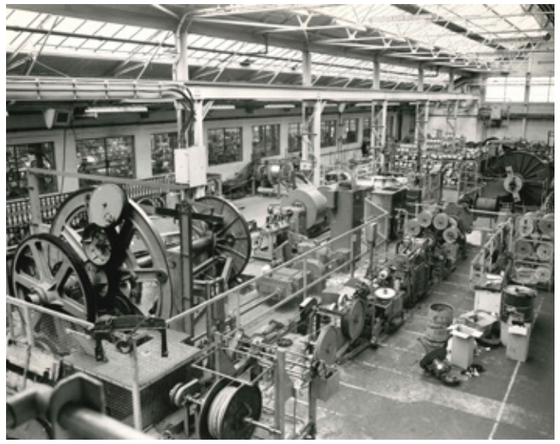
BRITISHCABLESCOMPANY.COM

Contents

British Cables Company. Trust in our experience.

OUR STORY STARTED IN 1895

There's a saying that 'things get better with age' and we like to think exactly that about our business here in Manchester. There's been a cable making plant on our site since 1895, when the Connolly Brothers of Blackley first established their business. Even in those early days the quest to produce innovative, high quality cables was evident. In fact, historical records show industry plaudits for their 'special leads for ship lighting' only 5 years after the first liner crossed the Atlantic!



BICC CABLES

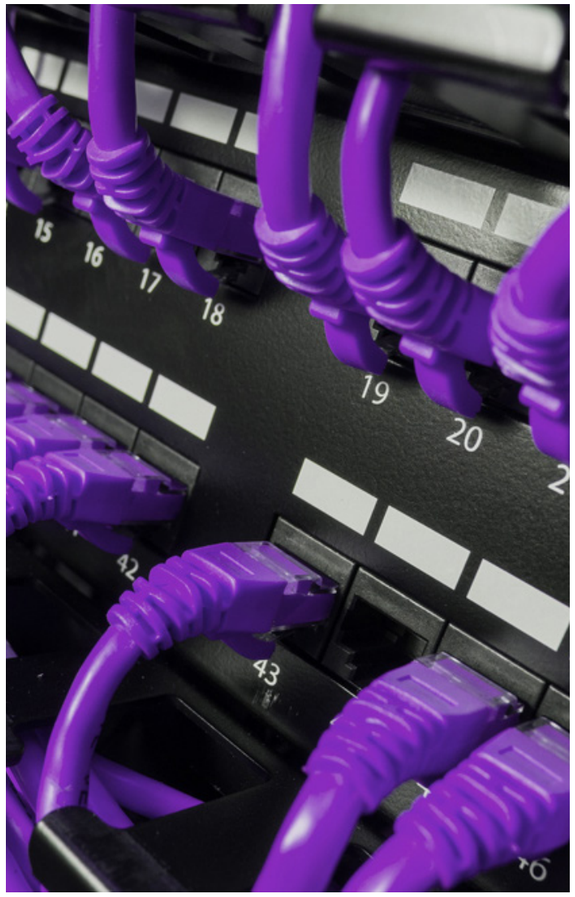
Of course, few people today would remember that, but most would recall one of the most prolific brands in our industry, BICC Cables. Our business became BICC Cables in 1959 and in many ways that energised the growth of the business to become one of the largest specialist cable manufacturers in the UK.

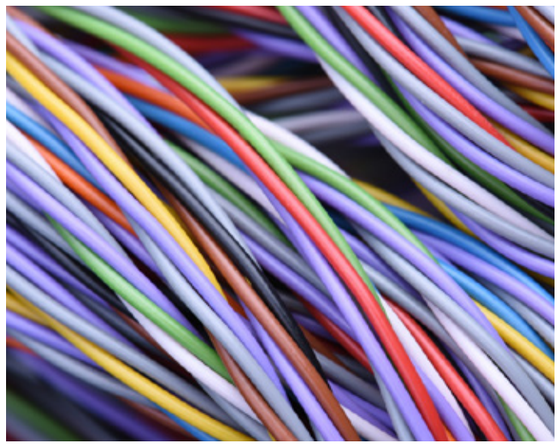
Fast forward to 2019 and here we are as the British Cables Company, now part of the highly respected Wilms Group, the biggest cable group in Europe. Whist our name is still relatively new, many people will recognise our factory in Blackley as one of the most respected cable manufacturing locations in Europe. Our longevity brings invaluable experience and capability, resulting in the operation evolving into a world-class facility.

British Cables Company. Trust in our experience.

Cables for every application

We are proud of the fact that our cables are utilised in just about every industry sector and type of application. You will find our products being specified for Telecommunications, Railway Infrastructure, Data Networks, Building Management Systems and critical performance areas like Security Systems. Take a look at our website www.britishcablescompany.com and you'll quickly see that we have an impressive product line up and regular updates on our stock lists.





Recognising the ongoing changes in government legislation, our innovative solutions comply with all the latest regulations. This means that whether you are a Distributor, Wholesaler, Specifier, Consultant, Contractor or end-user, everyone benefits from utilising our products with complete peace of mind. Our product range is continuously developing and we are significantly investing in our infrastructure, our facilities and our people to ensure we remain the preferred partner to many of our nationwide customers. At BCC we really understand the pressures our customers face when operating a business in this sector.

We know that our customers have many choices from where they can source products and that competitive pricing is a given these days. However, what sets British Cables Company apart is the genuine commitment to deliver a better deal all round. That means going the extra mile to provide specialist advice and technical support. It means maintaining healthy stock levels so that our customers can get what they need, exactly when they need it. And by providing a single source of supply for a huge range of products, and accessories, our customers can benefit from unbeatable economies of scale.

Cables for every application

Telecommunications Cables

Railway Cables

Cables for Building Management Systems (BMS)

Section 1
Telecommunications Cables

Internal Telephone Cable (Complies with BT Specification CW1600)

PACW/PE/Foil Screen/HFFR Sheathed

Internal telephony wiring- High Fire Retardancy

Application

Designed for use internally where there is a risk of fire. This cable is compliant with BS6701:2016+A1:2017: Telecommunications equipment and telecommunications cabling specification for installation, operation and maintenance, with a minimum CPRclassification of **Cca (s1b, d2, a2).**

The cable is designed to handle low frequency signals and is intended to be terminated in Insulation Displacement Connectors (IDC), but may be soldered or wrapped. The cable is intended to take the place of Polyvinyl Chloride (PVC) sheathed cables and will withstand similar environments with a similar working life.

Product description

Plain annealed solid copper wire; polyethylene insulated twisted pair, continuity wire, metalised polyester screen, fire retardant tape, HFFR sheath.

N.B. In the event of fire, the gases evolved from this cable are free from Halogen and the design is optimised to limit the quantity and cleanliness of the smoke evolved during this period. Although the acronym HFFR is applied to the sheath material, the terms LSOH, HFFR and HFFR are also applicable.

Physical characteristics

Number of Pairs	Conductor Diameter (mm)	Minimum Insulation Radial (mm)	Maximum Insulated Diameter (mm)	Pair Elements & Unit Size	Minimum Sheath Radial (mm)	Maximum Overall Diameter (mm)
2	0.5	0.15	0.95	Pairs 1 - 2	0.8	6.0
4	0.5	0.15	0.95	Pairs 1 - 4	0.8	7.0
6	0.5	0.15	0.95	Pairs 1 - 6	0.8	7.5
12	0.5	0.15	0.95	Pairs 1 – 12	0.9	9.1
25	0.5	0.15	0.95	Pairs 1 – 25	10	11.4
10	0.5	0.15	0.95	½ x 20	0.8	8.6
20	0.5	0.15	0.95	20	0.9	12.0
40	0.5	0.15	0.95	20	1.1	15.0
50	0.5	0.15	0.95	20	1.3	18.0
80	0.5	0.15	0.95	20	1.4	22.5
100	0.5	0.15	0.95	20	1.7	27.0
160	0.5	0.15	0.95	20	1.9	30.3
320	0.5	0.15	0.95	20	2.4	39.5

Electrical characteristics at 20°C

Parameter – 0.5 mm Conductor	Unit	Value
Conductor Resistance, Max Average @ 20°C	Ohms/km	97.8
Insulation Resistance, Min Value @ 20°C (500 volts/1 Min)	megohms	50
Mutual Capacitance, Max Average @ 20°C	nF/km	80
Capacitance Unbalance, Max Average @ 20°C	pF/500m	500

Fire performance

Test	Test Method	Value	Comment
Fume Emission	XR-F	No halogen, nitrogen, phosphorous or sulphur containing compounds (trace elements ≤ 0.5% w/w)	Compliant
Single Cable Vertical Burn Test	BS EN 50265-2-1 IEC 60332-1: 2004	Onset of char (from top support): > 50mm Extent of char (from top support): < 540mm	Compliant
Bunched Cable Vertical Burn Test	BS EN 50266-2-4 BS EN 50266-2-5	Category C (1.5 NMV) Category D (< 12mm diameter)	Compliant
Acid Gas Emission	BS EN 50267-2-1: 1999	Less than 5mg/g	Compliant
Smoke Emission	BS EN 61034-2: 2005	Minimum light transmittance 60%	Compliant
CPR Euroclassification	BS EN 50575-2014 AI-2016	B2ca, Cca, Dca, Eca (Contact office for possible additional classification)	Compliant

Colour scheme for pairs

Cabling Element No.	a-wire	b-wire	Cabling Element No.	a-wire	b-wire
1	WHITE-Blue	BLUE	16	YELLOW-Blue	BLUE
2	WHITE-Orange	ORANGE	17	YELLOW-Orange	ORANGE
3	WHITE-Green	GREEN	18	YELLOW-Green	GREEN
4	WHITE-Brown	BROWN	19	YELLOW-Brown	BROWN
5	WHITE-Grey	GREY	20	YELLOW-Grey	GREY
6	RED-Blue	BLUE	21	VIOLET-Blue	BLUE
7	RED-Orange	ORANGE	22	VIOLET-Orange	ORANGE
8	RED-Green	GREEN	23	VIOLET-Green	GREEN
9	RED-Brown	BROWN	24	VIOLET-Brown	BROWN
10	RED-Grey	GREY	25	VIOLET-Grey	GREY
11	BLACK-Blue	BLUE			
12	BLACK-Orange	ORANGE			
13	BLACK-Green	GREEN			
14	BLACK-Brown	BROWN			
15	BLACK-Grey	GREY			

Note 1: Uppercase letters indicate the base, solid colour of insulation, and the lower case indicates ink bands applied onto the base colour.

Make-up & unit identification colours – 20 pair unit

Pair Size	10 Pair	20 Pair	40 Pair	50 Pair	80 Pair	100 Pair	160 Pair	320 Pair
Make-Up	Number of Units							
Centre	½	1	2	5 x ½	1	1	2	1
1st Layer					3	4	6	5
2nd Layer						*****		10
Unit No.	Colours of Unit Lappings							
1	Orange	Orange	Orange	Orange	Blue	Blue	Orange	Orange
2			Green	Natural	Orange	Orange	Green	Orange
3				Green*	Green	Green	Orange	Natural
4					Brown	Natural	Natural	Natural
5						Grey	Natural	Natural
6							Natural	Green
7							Natural	Orange
8							Green	Natural
9 – 15								Natural
16								Green

Note 1: ½ refers to sub-units of 10 Pairs.
Note 2: These cables include the single 1.38mm diameter insulated conductor.
* The Green colour lapping shall be applied to the last ½ unit.
***** At the manufacturer's discretion the first layer may be 4 x 1.
Alternatively the centre layer may be 5 x 1 in which case the Unit lappings shall be coloured Orange, 3 x Natural, Green.

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Internal Telephone Cable (Complies with BT Specification CW1601)

Cable Inter Connection

Plain Annealed Copper Wire/Polyethylene Insulation/HFFR Sheathed

High performance cable interconnect

Application
This is a high performance cable designed for interconnection between equipment and frames for internal use.

Reference Standards
- BS 4727-3
- IEC 60028
- BS EN 50290-2-23
- BS EN 50290-2-27
- BT Specification M84
- RoHS 2002/95/EC

Design
1.Conductor
Solid annealed copper
2. Insulation
PE
3.Bundle Tape
PET
4. Rip cord
Nylon
5. Sheath
HFFR

Note: Above picture is for reference only and shows the 100 pair option.

Physical characteristics

No of Pairs	Conductor Dia. Nom. (mm)	Insulation Dia. Nom. (mm)	Insulation Thickness Nom. (mm)	Overall Dia. Nom. (mm)	Sheath Thickness Nom. (mm)	Make-Up	Unit Lapping Colour
32	0.50	0.90	0.16	13.2	1.0	4 * 8	Blue, Blue, Orange, Orange
64	0.50	0.90	0.16	18.3	1.0	4 * 16	Blue, Orange, Green, Brown
100	0.50	0.90	0.16	22.5	1.0	5 * 20	Blue, Orange, Green, Brown, Grey

Insulation colour scheme

Pair Number (Cabling element)	A-wire (Cond. 1)	B-wire (Cond. 2)
1	WHITE	Blue
2	WHITE	Orange
3	WHITE	Green
4	WHITE	Brown
5	WHITE	Grey
6	RED	Blue
7	RED	Orange
8	RED	Green
9	RED	Brown
10	RED	Grey
11	BLACK	Blue
12	BLACK	Orange
13	BLACK	Green
14	BLACK	Brown
15	BLACK	Grey
16	YELLOW	Blue
17	YELLOW	Orange
18	YELLOW	Green
19	YELLOW	Brown
20	YELLOW	Grey

Electrical characteristics (20˚C)

Number of pairs			32	64	100
Characteristic		Unit			
DCR conductor, maximum		Ω/km	97.8	97.8	97.8
DCR Insulation, minimum		MΩ/km	50	50	50
Capacitance Unbalance per 500 m		pF	≤ 500	≤ 500	≤ 500
Maximum Attenuation	at 1 MHz	dB/100m	2.6	2.6	2.6
Maximum Attenuation	at 4 MHz	dB/100m	5.6	5.6	5.6
Maximum Attenuation	at 8 MHz	dB/100m	8.5	8.5	8.5
Maximum Attenuation	at 10 MHz	dB/100m	9.8	9.8	9.8
Maximum Attenuation	at 16 MHz	dB/100m	13.1	13.1	13.1
NEXT	at 1 MHz over 100 m, min.	dB	62	62	62
NEXT	at 10 MHz over 100 m, min.	dB	47	47	47
NEXT	at 20 MHz over 100 m, min.	dB	42.5	42.5	42.5
Characteristic Impedance 1-20 MHz		Ω	100 ± 15	100 ± 15	100 ± 15

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Internal Telephone Cable (Complies with BT Specification CW1308)

Central Office Cable

Plain Annealed Copper Wire/PVC Insulation/PVC Sheathed

Internal telephony wiring - PVC/PVC

Application
The cable is designed to handle low frequency signals for short-range applications and is intended to be terminated in Insulation Displacement Connectors (IDC), but may be soldered or wrapped.

Construction
There are three modes of construction; Layer for general use, including two cables for installation in customer's premises where a good appearance is required. Unit, of 20 pairs, including a 1.38mm diameter insulated earth conductor, for use with customer distribution schemes. Unit, of 16 pairs, for use with the binary number system. Unit, of 30 pairs, for use with Pulse Code Modulation (PCM) systems.

Product description
Plain annealed solid copper wire, PVC insulated twisted pair and PVC sheath. An optional screen of aluminium/PVC is available on request.

Number Pairs	Conductor Diameter (mm)	Minimum Radial Insulation (mm)	Maximum Insulated Diameter (mm)	Unit Size/ Make-up	Minimum Sheath Radial (mm)	Maximum Overall Diameter (mm)	Resistance @ 20°C (ohms/km)	Capacitance Unbalance (pF/500m)
2	0.4	0.15	0.85	Layer	0.40	3.9	153.0	300
3	0.4	0.15	0.85	Layer	0.50	5.3	153.0	300
4	0.4	0.15	0.85	Layer	0.50	5.8	153.0	300
6	0.4	0.15	0.85	Layer	0.60	6.8	153.0	300
10	0.4	0.15	0.85	Layer	0.60	8.3	153.0	300
12	0.4	0.15	0.85	Layer	0.70	8.9	153.0	300
20	0.4	0.15	0.85	Layer	0.70	10.4	153.0	300
25	0.4	0.15	0.85	Layer	0.80	11.1	153.0	300
2	0.5	0.15	0.95	Layer	0.65	4.2	97.8	500
3	0.5	0.15	0.95	Layer	0.65	5.0	97.8	500
4	0.5	0.15	0.95	Layer	0.65	5.8	97.8	500
6	0.5	0.15	0.95	Layer	0.60	6.8	97.8	500
10	0.5	0.15	0.95	Layer	0.60	8.3	97.8	500
12	0.5	0.15	0.95	Layer	0.70	9.1	97.8	500
15	0.5	0.15	0.95	Layer	0.70	9.8	97.8	500
20**	0.5	0.15	0.95	Layer	0.80	10.7	97.8	500
25	0.5	0.15	0.95	Layer	0.80	11.4	97.8	500

20** this cable has an additional 0.5mm insulated conductor, coloured VIOLET.

Number Pairs	Conductor Diameter (mm)	Minimum Radial Insulation (mm)	Maximum Insulated Diameter (mm)	Unit Size/ Make-up	Minimum Sheath Radial (mm)	Maximum Over-all Diameter (mm)	Resistance @ 20°C (ohms/km)	Capacitance Unbalance (pF/500m)
8	0.4	0.15	0.85	½ x 16	0.60	7.2	153.0	200
16	0.4	0.15	0.85	16	0.70	9.8	153.0	200
32	0.4	0.15	0.85	16	0.80	12.0	153.0	200
64	0.4	0.15	0.85	16	1.10	16.0	153.0	200
30	0.4	0.15	0.85	30	0.80	11.8	153.0	200
120	0.4	0.15	0.85	30	1.60	24.8	153.0	200
150	0.4	0.15	0.85	30	1.70	26.0	153.0	200
8	0.5	0.15	0.95	½ x 16	0.60	7.6	97.8	500
16	0.5	0.15	0.95	16	0.70	10.2	97.8	500
32	0.5	0.15	0.95	16	0.80	12.4	97.8	500
64	0.5	0.15	0.95	16	1.10	16.5	97.8	500
128	0.5	0.15	0.95	16	1.60	25.4	97.8	500
256	0.5	0.15	0.95	16	2.00	35.2	97.8	500
10 + E	0.5	0.15	0.95	½ x 20	0.60	8.6	97.8	500
20 + E	0.5	0.15	0.95	20	0.70	12.0	97.8	500
40 + E	0.5	0.15	0.95	20	0.90	15.0	97.8	500
50 + E	0.5	0.15	0.95	20	1.00	17.0	97.8	500
80 + E	0.5	0.15	0.95	20	1.20	22.5	97.8	500
100 + E	0.5	0.15	0.95	20	1.50	27.0	97.8	500
160 + E	0.5	0.15	0.95	20	1.70	30.3	97.8	500
320 + E	0.5	0.15	0.95	20	2.20	39.5	97.8	500
30	0.5	0.15	0.95	30	0.80	12.2	97.8	500
120	0.5	0.15	0.95	30	1.60	25.1	97.8	500
150	0.5	0.15	0.95	30	1.70	26.0	97.8	500

Note: The 'E' in the table above indicates that the cable contains an earth-wire. This consists of a 1.38mm solid copper conductor (maximum resistance 12.4 ohms/km), insulated with Cream PVC to a nominal 2.7mm.

Insulation resistance

Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 50 megohms per 1000 metres at 20°C.

Colour scheme

Cabling Element No.	a-wire	b-wire	Cabling Element No.	a-wire	b-wire
1	WHITE-Blue	BLUE-White	16	YELLOW-Blue	BLUE-Yellow
2	WHITE-Orange	ORANGE-White	17	YELLOW-Orange	ORANGE-Yellow
3	WHITE-Green	GREEN-White	18	YELLOW-Green	GREEN-Yellow
4	WHITE-Brown	BROWN-White	19	YELLOW-Brown	BROWN-Yellow
5	WHITE-Grey	GREY-White	20	YELLOW-Grey	GREY-Yellow
6	RED-Blue	BLUE-Red	21	VIOLET-Blue	BLUE-Violet
7	RED-Orange	ORANGE-Red	22	VIOLET-Orange	ORANGE-Violet
8	RED-Green	GREEN-Red	23	VIOLET-Green	GREEN-Violet
9	RED-Brown	BROWN-Red	24	VIOLET-Brown	BROWN-Violet
10	RED-Grey	GREY-Red	25	VIOLET-Grey	GREY-Violet
11	BLACK-Blue	BLUE-Black	26	PINK-Blue	BLUE-Pink
12	BLACK-Orange	ORANGE-Black	27	PINK-Orange	ORANGE-Pink
13	BLACK-Green	GREEN-Black	28	PINK-Green	GREEN-Pink
14	BLACK-Brown	BROWN-Black	29	PINK-Brown	BROWN-Pink
15	BLACK-Grey	GREY-Black	30	PINK-Grey	GREY-Pink

Note: Uppercase letters indicate the base, solid colour of insulation, and the lower case indicates ink bands applied onto the base colour.

Make-up & unit identification colours – 16 pair unit

Pair Size	8 Pair	16 Pair	32 Pair	64 Pair	128 Pair	256 Pair
	Number of Units					
Centre	½	1	4 x ½	1	4 x ½	1
1st Layer				6 x ½	6	5
2nd Layer						10
Unit No.	Colours of Unit Lappings					
1	Orange	Orange	Orange	Orange	Orange	Orange
2			Green	Orange	Green	Orange
3				Natural	Orange	Natural
4				Green	Natural	Natural
5					Natural	Natural
6					Natural	Green
7					Natural	Orange
8					Green	Natural
9-15						Natural
16						Green

Note 1: ½ refers to sub-units of 8 Pairs.

Make-up & unit identification colours – 20 pair unit

Pair Size	10 Pair	20 Pair	40 Pair	50 Pair	80 Pair	100 Pair	160 Pair	320 Pair
	Number of Units							
Centre	½	1	4 x ½	5 x ½	1	1	4 x ½	1
1st Layer					6 x ½	8 x ½	6	5
2nd Layer						*****		10
Unit No.	Colours of Unit Lappings							
1	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange
2			Green	Natural	Orange	Orange	Green	Orange
3				Green*	Natural	Natural	Orange	Natural
4					Green	Natural	Natural	Natural
5						Green	Natural	Natural
6							Natural	Green
7							Natural	Orange
8							Green	Natural
9-15								Natural
16								Green

Note 1: ½ refers to sub-units of 10 Pairs. **Note 2:** These cables include the single 1.38mm diameter insulated conductor. * The Green colour lapping shall be applied to the last ½ unit. ***** At the manufacturer's discretion the first layer may be 4 x 1. Alternatively the centre layer may be 5 x 1 in which case the Unit lappings shall be coloured Orange, 3 x Natural, Green.

Make-up & unit identification colours – 30 pair unit

Pair Size	30 Pair	120 Pair	150 Pair
	Number of Units		
Centre	1	1	1
1st Layer		6 x ½	8 x ½
Unit No.	Colours of Unit Lappings		
1	Orange	Orange	Orange
2		Orange	Orange
3		Natural	Natural
4		Green	Blue
5			Green

Note 1: ½ refers to sub-units of 15 Pairs.

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Internal Telephone Cable (Generally Complies with BT Specification CW1308)

Central Office Cable

Plain Annealed Copper Wire/PVC Insulation/HFFR Sheathed

CPR COMPLIANT

BCC BRITISH CABLES COMPANY

Internal telephony wiring - PVC/HFFR

Application
The cable is designed to handle low frequency signals for short-range applications and is intended to be terminated in Insulation Displacement Connectors (IDC), but may be soldered or wrapped.

Construction
There are three modes of construction; Layer for general use, including two cables for installation in customer's premises where a good appearance is required. Unit, of 20 pairs, including a 1.38mm diameter insulated earth conductor, for use with customer distribution schemes. Unit, of 16 pairs, for use with the binary number system. Unit, of 30 pairs, for use with Pulse Code Modulation (PCM) systems.

Product description
Plain annealed solid copper wire, PVC insulated twisted pair and HFFR sheath. An optional collective screen of aluminium coated polyester is available on request.

Number Pairs	Conductor Diameter (mm)	Minimum Radial Insulation (mm)	Maximum Insulated Diameter (mm)	Unit Size/ Make-up	Minimum Sheath Radial (mm)	Maximum Over-all Diameter (mm)	Resistance @ 20°C (ohms/km)	Capacitance Unbalance (pF/500m)
2	0.4	0.15	0.85	Layer	0.40	3.9	153.0	300
3	0.4	0.15	0.85	Layer	0.50	5.3	153.0	300
4	0.4	0.15	0.85	Layer	0.50	5.8	153.0	300
6	0.4	0.15	0.85	Layer	0.60	6.8	153.0	300
10	0.4	0.15	0.85	Layer	0.60	8.3	153.0	300
12	0.4	0.15	0.85	Layer	0.70	8.9	153.0	300
20	0.4	0.15	0.85	Layer	0.70	10.4	153.0	300
25	0.4	0.15	0.85	Layer	0.80	11.1	153.0	300
2	0.5	0.15	0.95	Layer	0.65	4.2	97.8	500
3	0.5	0.15	0.95	Layer	0.65	5.0	97.8	500
4	0.5	0.15	0.95	Layer	0.65	5.8	97.8	500
6	0.5	0.15	0.95	Layer	0.60	6.8	97.8	500
10	0.5	0.15	0.95	Layer	0.60	8.3	97.8	500
12	0.5	0.15	0.95	Layer	0.70	9.1	97.8	500
15	0.5	0.15	0.95	Layer	0.70	9.8	97.8	500
20**	0.5	0.15	0.95	Layer	0.80	10.7	97.8	500
25	0.5	0.15	0.95	Layer	0.80	11.4	97.8	500

20** this cable has an additional 0.5mm insulated conductor, coloured VIOLET.

Number Pairs	Conductor Diameter (mm)	Minimum Radial Insulation (mm)	Maximum Insulated Diameter (mm)	Unit Size/ Make-up	Minimum Sheath Radial (mm)	Maximum Over-all Diameter (mm)	Resistance @ 20°C (ohms/km)	Capacitance Unbalance (pF/500m)
8	0.4	0.15	0.85	½ x 16	0.60	7.2	153.0	200
16	0.4	0.15	0.85	16	0.70	9.8	153.0	200
32	0.4	0.15	0.85	16	0.80	12.0	153.0	200
64	0.4	0.15	0.85	16	1.10	16.0	153.0	200
30	0.4	0.15	0.85	30	0.80	11.8	153.0	200
120	0.4	0.15	0.85	30	1.60	24.8	153.0	200
150	0.4	0.15	0.85	30	1.70	26.0	153.0	200
8	0.5	0.15	0.95	½ x 16	0.60	7.6	97.8	500
16	0.5	0.15	0.95	16	0.70	10.2	97.8	500
32	0.5	0.15	0.95	16	0.80	12.4	97.8	500
64	0.5	0.15	0.95	16	1.10	16.5	97.8	500
128	0.5	0.15	0.95	16	1.60	25.4	97.8	500
256	0.5	0.15	0.95	16	2.00	35.2	97.8	500
10 + E	0.5	0.15	0.95	½ x 20	0.60	8.6	97.8	500
20 + E	0.5	0.15	0.95	20	0.70	12.0	97.8	500
40 + E	0.5	0.15	0.95	20	0.90	15.0	97.8	500
50 + E	0.5	0.15	0.95	20	1.00	17.0	97.8	500
80 + E	0.5	0.15	0.95	20	1.20	22.5	97.8	500
100 + E	0.5	0.15	0.95	20	1.50	27.0	97.8	500
160 + E	0.5	0.15	0.95	20	1.70	30.3	97.8	500
320 + E	0.5	0.15	0.95	20	2.20	39.5	97.8	500
30	0.5	0.15	0.95	30	0.80	12.2	97.8	500
120	0.5	0.15	0.95	30	1.60	25.1	97.8	500
150	0.5	0.15	0.95	30	1.70	26.0	97.8	500

Note: The 'E' in the table above indicates that the cable contains an earth-wire. This consists of a 1.38mm solid copper conductor (maximum resistance 12.4 ohms/km), insulated with Cream PVC to a nominal 2.7mm.

Insulation resistance
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 50 megohms per 1000 metres at 20°C.

Colour scheme

Cabling Element No.	a-wire	b-wire	Cabling Element No.	a-wire	b-wire
1	WHITE-Blue	BLUE-White	16	YELLOW-Blue	BLUE-Yellow
2	WHITE-Orange	ORANGE-White	17	YELLOW-Orange	ORANGE-Yellow
3	WHITE-Green	GREEN-White	18	YELLOW-Green	GREEN-Yellow
4	WHITE-Brown	BROWN-White	19	YELLOW-Brown	BROWN-Yellow
5	WHITE-Grey	GREY-White	20	YELLOW-Grey	GREY-Yellow
6	RED-Blue	BLUE-Red	21	VIOLET-Blue	BLUE-Violet
7	RED-Orange	ORANGE-Red	22	VIOLET-Orange	ORANGE-Violet
8	RED-Green	GREEN-Red	23	VIOLET-Green	GREEN-Violet
9	RED-Brown	BROWN-Red	24	VIOLET-Brown	BROWN-Violet
10	RED-Grey	GREY-Red	25	VIOLET-Grey	GREY-Violet
11	BLACK-Blue	BLUE-Black	26	PINK-Blue	BLUE-Pink
12	BLACK-Orange	ORANGE-Black	27	PINK-Orange	ORANGE-Pink
13	BLACK-Green	GREEN-Black	28	PINK-Green	GREEN-Pink
14	BLACK-Brown	BROWN-Black	29	PINK-Brown	BROWN-Pink
15	BLACK-Grey	GREY-Black	30	PINK-Grey	GREY-Pink

Note: Uppercase letters indicate the base, solid colour of insulation, and the lower case indicates ink bands applied onto the base colour.

Make-up & unit identification colours – 16 pair unit

Pair Size	8 Pair	16 Pair	32 Pair	64 Pair	128 Pair	256 Pair
	Number of Units					
Centre	½	1	4 x ½	1	4 x ½	1
1st Layer				6 x ½	6	5
2nd Layer						10
Unit No.	Colours of Unit Lappings					
1	Orange	Orange	Orange	Orange	Orange	Orange
2			Green	Orange	Green	Orange
3				Natural	Orange	Natural
4				Green	Natural	Natural
5					Natural	Natural
6					Natural	Green
7					Natural	Orange
8					Green	Natural
9-15						Natural
16						Green

Note 1: ½ refers to sub-units of 8 Pairs.

Make-up & unit identification colours – 20 pair unit

Pair Size	10 Pair	20 Pair	40 Pair	50 Pair	80 Pair	100 Pair	160 Pair	320 Pair
	Number of Units							
Centre	½	1	4 x ½	5 x ½	1	1	4 x ½	1
1st Layer					6 x ½	8 x ½	6	5
2nd Layer						*****		10
Unit No.	Colours of Unit Lappings							
1	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange
2			Green	Natural	Orange	Orange	Green	Orange
3				Green*	Natural	Natural	Orange	Natural
4					Green	Natural	Natural	Natural
5						Green	Natural	Natural
6							Natural	Green
7							Natural	Orange
8							Green	Natural
9-15								Natural
16								Green

Note 1: ½ refers to sub-units of 10 Pairs. **Note 2:** These cables include the single 1.38mm diameter insulated conductor. * The Green colour lapping shall be applied to the last ½ unit. ***** At the manufacturer's discretion the first layer may be 4 x 1. Alternatively the centre layer may be 5 x 1 in which case the Unit lappings shall be coloured Orange, 3 x Natural, Green.

Make-up & unit identification colours – 30 pair unit

Pair Size	30 Pair	120 Pair	150 Pair
	Number of Units		
Centre	1	1	1
1st Layer		6 x ½	8 x ½
Unit No.	Colours of Unit Lappings		
1	Orange	Orange	Orange
2		Orange	Orange
3		Natural	Natural
4		Green	Blue
5			Green

Note 1: ½ refers to sub-units of 15 Pairs.

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Universal Campus Cable

(Construction and Electrical Performance as per BT Specification CW1308)

Indoor / Outdoor Cable

PACW/PVC Insulation/Moisture Barrier/HFFR Sheathed

CW1308B Indoor outdoor campus cables

Application
The cable is designed primarily for interconnection between buildings within a telecommunication network where the cable is used both inside the building and outside in ducts between the buildings. The cable replaces the traditional PVC sheathed cable inside the building and the Polyethylene sheathed cable outside, making the need to joint at building entries redundant. The design includes a metallic moisture barrier bonded to the sheath to combat the ingress of moisture vapour and the sheath is a low smoke non-halogenated polymer, which imparts a high degree of flame retardancy to the cable. The cable core is similar to BT Specification CW 1308.

Construction
Twisted pairs in 10 Pair Units. The pair range is 10 – 100.

Product description
Plain annealed solid copper wire; PVC insulation with the required number of pairs assembled in 20 pair units. A polyester tape is applied over the cable core followed by a Polyethylene/Aluminium Laminate moisture barrier, which is

Product description (continued)
bonded to the Low Smoke Non-Halogenated (HFFR) sheath. An optional 1.38mm diameter PVC insulated Earth Wire may be included within the cable core on request.

Number Pairs	Conductor Diameter (mm)	Minimum Radial Insulation (mm)	Maximum Insulated Diameter (mm)	Unit Size/ Make-up	Minimum Sheath Radial (mm)	Maximum Over-all Diameter (mm)	Resistance @ 20°C (ohms/km)	Capacitance Unbalance (pF/500m)
10	0.5	0.15	0.95	10	0.60	8.3	97.8	500
20	0.5	0.15	0.95	10	0.80	10.7	97.8	500
30	0.5	0.15	0.95	10	0.80	12.2	97.8	500
40	0.5	0.15	0.95	10	0.90	15.0	97.8	500
50	0.5	0.15	0.95	10	1.00	17.0	97.8	500
60	0.5	0.15	0.95	10	1.20	17.0	97.8	500
80	0.5	0.15	0.95	10	1.20	22.5	97.8	500
100	0.5	0.15	0.95	10	1.50	27.0	97.8	500
160	0.5	0.15	0.95	10	1.70	30.0	97.8	500
200	0.5	0.15	0.95	10	1.85	32.0	97.8	500
320	0.5	0.15	0.95	10	2.2	39.5	97.8	500
10(+E)	0.5	0.15	0.95	10	0.60	8.6	97.8	500
20(+E)	0.5	0.15	0.95	10	0.70	12.0	97.8	500
30(+E)	0.5	0.15	0.95	10	0.80	12.2	97.8	500
40(+E)	0.5	0.15	0.95	10	0.90	15.0	97.8	500
50(+E)	0.5	0.15	0.95	10	1.10	18.0	97.8	500
80(+E)	0.5	0.15	0.95	10	1.20	22.5	97.8	500
100(+E)	0.5	0.15	0.95	10	1.50	27.0	97.8	500
160(+E)	0.5	0.15	0.95	10	1.70	30.3	97.8	500
200(+E)	0.5	0.15	0.95	10	1.85	32.0	97.8	500
320(+E)	0.5	0.15	0.95	10	2.2	39.5	97.8	500

Note: The items indicated as (+E) in the table above are available with or without an earth-wire. If an earth-wire is included, it consists of a 1.38mm solid copper conductor (maximum resistance 12.4 ohms/km), insulated with Cream PVC to a nominal 2.7mm.

Insulation resistance
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 50 megohms per 1000 metres at 20°C.

Colour scheme

Cabling Element No.	a-wire	b-wire	Cabling Element No.	a-wire	b-wire
1	WHITE-Blue	BLUE-White	11	BLACK-Blue	BLUE-Black
2	WHITE-Orange	ORANGE-White	12	BLACK-Orange	ORANGE-Black
3	WHITE-Green	GREEN-White	13	BLACK-Green	GREEN-Black
4	WHITE-Brown	BROWN-White	14	BLACK-Brown	BROWN-Black
5	WHITE-Grey	GREY-White	15	BLACK-Grey	GREY-Black
6	RED-Blue	BLUE-Red	16	YELLOW-Blue	BLUE-Yellow
7	RED-Orange	ORANGE-Red	17	YELLOW-Orange	ORANGE-Yellow
8	RED-Green	GREEN-Red	18	YELLOW-Green	GREEN-Yellow
9	RED-Brown	BROWN-Red	19	YELLOW-Brown	BROWN-Yellow
10	RED-Grey	GREY-Red	20	YELLOW-Grey	GREY-Yellow

Note 1: Uppercase letters indicate the base, solid colour of insulation, and the lower case indicates ink bands applied onto the base colour.

Make-up & unit identification colours – 20 pair unit

Pair Size	10 Pair	20 Pair	40 Pair	50 Pair	80 Pair	100 Pair	160 Pair	200 Pair	320 Pair
	Number of Units								
Centre	½	1	4 x ½	5 x ½	1	1	4 x ½	4 x ½	1
1st Layer					6 x ½	8 x ½	6	8	5
2nd Layer						*****			10
Unit No.	Colours of Unit Binder Tapes								
1	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange
2			Green	Natural	Orange	Orange	Green	Green	Orange
3				Green*	Natural	Natural	Orange	Orange	Natural
4					Green	Natural	Natural	Natural	Natural
5						Green	Natural	Natural	Natural
6							Natural	Natural	Green
7							Natural	Natural	Orange
8							Green	Natural	Natural
9								Natural	Natural
10								Green	Natural
11-15									Natural
16									Green

Note 1: ½ refers to sub-units of 10 Pairs. * The Green colour lapping shall be applied to the last ½ unit. ***** At the manufacturer's discretion the first layer may be 4 x 1. Alternatively the centre layer may be 5 x 1 in which case the Unit lappings shall be coloured Orange, 3 x Natural, Green.

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External Exchange Side Multipair Telephone Cable

PACW/cellular PE/PJ /LAP/optional moisture barrier/PE sheathed
External Telephone Cable
(Complies with BT Specifications CW1236 or CW1236 and CW1179)

BRITISH CABLES COMPANY

Cellular insulation, jelly filled cables

Application
The cable is fully filled with petroleum jelly and is designed primarily for use in the Local Main Network. There is an option for spare pair units to be incorporated access into cables of 200 Pairs and above.

Construction
Twisted pairs in 25 Pair Units. The pair range is 50 – 2000.

Product description
Plain annealed solid copper wire, cellular polyethylene insulation, twisted pairs, petroleum jelly filling, paper core wrap, longitudinal aluminium moisture barrier (optional) bonded to black polyethylene sheath.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
50	0.40	0.75	1.6	143	150	56	64	16.0
100	0.40	0.75	1.7	143	150	56	64	20.5
200	0.40	0.75	1.8	143	150	56	64	26.0
300	0.40	0.75	1.9	143	150	56	64	30.5
400	0.40	0.75	1.9	143	150	56	64	35.0
500	0.40	0.75	2.0	143	150	56	64	37.5
600	0.40	0.75	2.1	143	150	56	64	40.5
800	0.40	0.75	2.2	143	150	56	64	46.5
1000	0.40	0.75	2.3	143	150	56	64	51.5
1200	0.40	0.75	2.4	143	150	56	64	56.0
1600	0.40	0.75	2.6	143	150	56	64	65.5
2000	0.40	0.75	2.6	143	150	56	64	70.0
50	0.50	0.90	1.6	91	96	56	64	19.0
100	0.50	0.90	1.7	91	96	56	64	23.5
150	0.50	0.90	1.8	91	96	56	64	27.0
200	0.50	0.90	1.9	91	96	56	64	30.5
300	0.50	0.90	2.0	91	96	56	64	37.0
400	0.50	0.90	2.1	91	96	56	64	42.5
500	0.50	0.90	2.2	91	96	56	64	46.0
600	0.50	0.90	2.2	91	96	56	64	49.5
800	0.50	0.90	2.4	91	96	56	64	56.5
1000	0.50	0.90	2.5	91	96	56	64	62.5
1200	0.50	0.90	2.6	91	96	56	64	69.0
50	0.63	1.15	1.7	58	60	56	64	22.0
100	0.63	1.15	1.8	58	60	56	64	28.0
200	0.63	1.15	2.0	58	60	56	64	37.5
300	0.63	1.15	2.2	58	60	56	64	46.0

Note: Mutual capacitance values may be increased by 3% for cables with a nominal number of pairs less than 400pr.

No. Prs	Cu Size (mm)	Nom Ins Dia (mm)	Min Sheath Radial	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
400	0.63	1.15	2.3	58	60	56	64	52.5
500	0.63	1.15	2.4	58	60	56	64	56.5
600	0.63	1.15	2.5	58	60	56	64	61.0
800	0.63	1.15	2.7	58	60	56	64	70.5
50	0.90	1.50	1.8	28	30	59	65	27.5
100	0.90	1.50	2.0	28	30	59	65	38.0

Note: Mutual capacitance values may be increased by 3% for cables with a nominal number of pairs less than 400pr.

Insulation resistance

Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute theinsulation resistance measured between each conductor and the remaining conductors connected together shall be not less than1500 megohms per 1000 metres at 20°C.

Capacitance Unbalance Measurement and Correction Factor

Pair to Pair capacitance unbalance measurements shall be made at a suitable audio frequency. During the measurements the aluminium foil and all conductors other than those under test shall be connected to earth. The measurements shall be corrected as follows, L being the length in metres of the cable under test. Lengths of less than 100 metres are considered as 100 metres.

½ [L/500 + (L/500)½]

Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed 275pF.

Binder colour identification

(double & quadruple units / centre & layers)

Unit	Position of Sub-Unit or Unit			
	First	Second	Third	Fourth
Double	BLUE	BLUE	ORANGE	ORANGE
Quadruple	BLUE	ORANGE	GREEN	BROWN

Position of Units		
Second	Third	Fourth
BLUE	ORANGE	ORANGE
ORANGE	GREEN	BROWN

CW1236 Pair colour scheme, unit binder colours and cable make-up

Cabling Element Number	a-wire	b-wire
1	WHITE	Blue
2	WHITE	Orange
3	WHITE	Green
4	WHITE	Brown
5	WHITE	Grey
6	RED	Blue
7	RED	Orange
8	RED	Green
9	RED	Brown
10	RED	Grey
11	BLACK	Blue
12	BLACK	Orange
13	BLACK	Green
14	BLACK	Brown
15	BLACK	Grey
16	YELLOW	Blue
17	YELLOW	Orange
18	YELLOW	Green
19	YELLOW	Brown
20	YELLOW	Grey
21	VIOLET	Blue
22	VIOLET	Orange
23	VIOLET	Green
24	VIOLET	Brown
25	VIOLET	Grey

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer				No. of Pairs in Spare Pair Unit	No. of Usable Pairs Allowed
	Centre	1st layer	2nd Layer	3rd Layer		
50	1 x 50	-	-	-	0	1
100	1 x 25	3 x (12 +13)	-	-	0	1
200	1 x 50 4 x 50	6 x 25 -	- -	- -	4	2
300	1 x 50 1 x 100	5 x 50 8 x 25	- -	- -	4	3
400	1 x 100	6 x 50	-	-	4	3
500	3 x 50 1 x 100	7 x 50 8 x 50	- -	- -	4	4
600	3 x 50 1 x 100	9 x 50 5 x 100	- -	- -	4	4
800	1 x 50 4 x 50	5 x 50 6 x 100	10 x 50 -	- -	4	5
1000	4 x 50 3 x 100	8 x 100 7 x 100	- -	- -	4	5
1200	3 x 100 4 x 100	9 x 100 8 x 100	- -	- -	4	5
1600	1 x 100	5 x 100	10 x 100	-	4	6
2000	4 x 50	6 x 100	12 x 100	-	8	6
2400	3 x 100	8 x 100	13 x 100	-	8	7
3200	1 x 100	5 x 100	10 x 100	16 x 100	8	7
4000	3 x 100	7 x 100	12 x 100	18 x 100	8	8
4800	4 x 100	9 x 100	15 x 100	20 x 100	8	8

Note: Alternative make-ups are shown for some sizes and as a further alternative any cable can be made up using 25 Pair Units throughout.

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External Exchange Side Multipair Telephone Cable

PACW/cellular PE/moisture barrier/PE sheath

External Telephone Cable (Complies with BT Specification CW1224)

BRITISH CABLES COMPANY

CW1224 Cellular insulation, unfilled cables

Application

The cable is designed primarily for use in the Local Main Network where it is pressurised and used in conjunction with Resin Air Blocks. There is an option for spare pair units to be incorporated into cables of 200 Pairs and above.

Construction

Twisted pairs in 25 Pair Units. The pair range is 50 – 4800.

Product description

Plain annealed solid copper wire, cellular polyethylene insulation, twisted pairs, polypropylene and paper core wraps, and a black low density polyethylene sheath incorporating a longitudinally applied aluminium/polyethylene moisture barrier.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
100	0.32	0.51	1.7	223	239	53	60	16.0
200	0.32	0.51	1.7	223	239	53	60	22.0
300	0.32	0.51	1.8	223	239	53	60	23.5
400	0.32	0.51	1.8	223	239	53	60	26.0
500	0.32	0.51	1.9	223	239	53	60	28.5
600	0.32	0.51	1.9	223	239	53	60	31.0
800	0.32	0.51	2.0	223	239	53	60	34.5
1000	0.32	0.51	2.1	223	239	53	60	38.0
1200	0.32	0.51	2.2	223	239	53	60	41.0
1600	0.32	0.51	2.3	223	239	53	60	46.5
2000	0.32	0.51	2.4	223	239	53	60	51.5
2400	0.32	0.51	2.5	223	239	53	60	55.5
4000	0.32	0.51	2.7	223	239	68	75	71.0
4800	0.32	0.51	1.7	223	239	68	75	76.0
50	0.40	0.66	1.6	143	150	53	60	15.5
100	0.40	0.66	1.6	143	150	53	60	19.0
200	0.40	0.66	1.7	143	150	53	60	24.5
300	0.40	0.66	1.8	143	150	53	60	28.5
400	0.40	0.66	1.9	143	150	53	60	32.0
500	0.40	0.66	1.9	143	150	53	60	35.0
600	0.40	0.66	2.0	143	150	53	60	38.0
800	0.40	0.66	2.1	143	150	53	60	43.0
1000	0.40	0.66	2.2	143	150	53	60	47.5
1200	0.40	0.66	2.3	143	150	53	60	51.5
1600	0.40	0.66	2.4	143	150	53	60	58.5
2000	0.40	0.66	2.5	143	150	53	60	64.5
2400	0.40	0.66	2.6	143	150	53	60	70.0

Note: Mutual capacitance values may be increased by 3% for cables with a nominal number of pairs less than 400pr.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
50	0.50	0.80	1.6	91	96	53	60	17.0
100	0.50	0.80	1.7	91	96	53	60	22.0
200	0.50	0.80	1.8	91	96	53	60	28.5
300	0.50	0.80	1.9	91	96	53	60	33.5
400	0.50	0.80	2.0	91	96	53	60	37.5
500	0.50	0.80	2.1	91	96	53	60	41.5
600	0.50	0.80	2.1	91	96	53	60	44.5
800	0.50	0.80	2.3	91	96	53	60	51.5
1000	0.50	0.80	2.4	91	96	53	60	56.0
1200	0.50	0.80	2.5	91	96	53	60	61.5
1600	0.50	0.80	2.6	91	96	53	60	69.5
2000	0.50	0.80	2.7	91	96	53	60	75.0
2400	0.50	0.80	2.7	91	96	53	60	80.0
50	0.63	0.98	1.6	58	60	56	60	19.5
100	0.63	0.98	1.7	58	60	56	60	25.0
200	0.63	0.98	1.9	58	60	56	60	33.5
300	0.63	0.98	2.0	58	60	56	60	39.5
400	0.63	0.98	2.1	58	60	56	60	44.5
500	0.63	0.98	2.2	58	60	56	60	49.5
600	0.63	0.98	2.3	58	60	56	60	53.5
800	0.63	0.98	2.5	58	60	56	60	61.0
1000	0.63	0.98	2.6	58	60	56	60	67.5
1200	0.63	0.98	2.7	58	60	56	60	73.5
1600	0.63	0.90	2.7	58	60	56	60	80.0
50	0.90	1.35	1.7	28	30	59	64	24.5
100	0.90	1.35	1.9	28	30	59	64	32.5
200	0.90	1.35	2.1	28	30	59	64	45.0
300	0.90	1.35	2.4	28	30	59	64	56.0
400	0.90	1.35	2.5	28	30	59	64	62.0

Note: Mutual capacitance values may be increased by 3% for cables with a nominal number of pairs less than 400pr.

Insulation resistance

Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute theinsulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance Unbalance Measurement and Correction Factor

Pair to Pair capacitance unbalance measurements shall be made at a suitable audio frequency. During the measurements the aluminium foil and all conductors other than those under test shall be connected to earth. The measurements shall be corrected as follows, L being the length in metres of the cable under test. Lengths of less than 100 metres are considered as 100 metres.

½ [L/500 + (L/500)½]

Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed 275pF.

Binder colour identification

(double & quadruple units / centre & layers)

Unit	Position of Sub-Unit or Unit			
	First	Second	Third	Fourth
Double	BLUE	BLUE	ORANGE	ORANGE
Quadruple	BLUE	ORANGE	GREEN	BROWN

Position of Units		
Second	Third	Fourth
BLUE	ORANGE	ORANGE

CW1224 Pair colour scheme, cable make-up and spare pair allowance

Cabling Element Number	a-wire	b-wire
1	WHITE	Blue
2	WHITE	Orange
3	WHITE	Green
4	WHITE	Brown
5	WHITE	Grey
6	RED	Blue
7	RED	Orange
8	RED	Green
9	RED	Brown
10	RED	Grey
11	BLACK	Blue
12	BLACK	Orange
13	BLACK	Green
14	BLACK	Brown
15	BLACK	Grey
16	YELLOW	Blue
17	YELLOW	Orange
18	YELLOW	Green
19	YELLOW	Brown
20	YELLOW	Grey
21	VIOLET	Blue
22	VIOLET	Orange
23	VIOLET	Green
24	VIOLET	Brown
25	VIOLET	Grey

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer				No. of Pairs in Spare Pair Unit	No. of Usable Pairs Allowed
	Centre	1st layer	2nd Layer	3rd Layer		
50	1 x 50	-	-	-	0	1
100	1 x 25	3 x (12 +13)	-	-	0	1
200	1 x 50 4 x 50	6 x 25 -	- -	- -	4	2
300	1 x 50 1 x 100	5 x 50 8 x 25	- -	- -	4	3
400	1 x 100	6 x 50	-	-	4	3
500	3 x 50 1 x 100	7 x 50 8 x 50	- -	- -	4	4
600	3 x 50 1 x 100	9 x 50 5 x 100	- -	- -	4	4
800	1 x 50 4 x 50	5 x 50 6 x 100	10 x 50 -	- -	4	5
1000	4 x 50 3 x 100	8 x 100 7 x 100	- -	- -	4	5
1200	3 x 100 4 x 100	9 x 100 8 x 100	- -	- -	4	5
1600	1 x 100	5 x 100	10 x 100	-	4	6
2000	4 x 50	6 x 100	12 x 100	-	8	6
2400	3 x 100	8 x 100	13 x 100	-	8	7
3200	1 x 100	5 x 100	10 x 100	16 x 100	8	7
4000	3 x 100	7 x 100	12 x 100	18 x 100	8	8
4800	4 x 100	9 x 100	15 x 100	20 x 100	8	8

Note: Alternative make-ups are shown for some sizes and as a further alternative any cable can be made up using 25 Pair Units throughout.

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External Exchange Side TT Multipair Telephone Cable

PACW/solid PE insulation/moisture barrier/polyethylene sheath External External Telephone Cable (Complies with BT Specification CW1171)

BRITISH CABLES COMPANY

CW1171 Solid insulation, unfilled cables

Application
The cable is designed primarily for use in the Local Main Network where it is pressurised and used in conjunction with Resin Air Blocks. There is an option for spare pair units to be incorporated into cables of 200 Pairs and above.

Construction
Twisted pairs in 25 Pair Units. The pair range is 50 – 4800.

Product description
Plain annealed solid copper wire, solid polyethylene insulation, twisted pairs, polypropylene and paper core wraps, and a black low density polyethylene sheath incorporating a longitudinally applied aluminium/polyethylene moisture barrier.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
50	0.32	0.61	1.6	223	239	53	60	14.0
100	0.32	0.61	1.6	223	239	53	60	17.0
200	0.32	0.61	1.7	223	239	53	60	22.0
300	0.32	0.61	1.8	223	239	53	60	26.0
400	0.32	0.61	1.8	223	239	53	60	29.5
500	0.32	0.61	1.9	223	239	53	60	32.0
600	0.32	0.61	1.9	223	239	53	60	34.0
800	0.32	0.61	2.0	223	239	53	60	39.0
1000	0.32	0.61	2.1	223	239	53	60	42.5
1200	0.32	0.61	2.2	223	239	53	60	47.0
1600	0.32	0.61	2.3	223	239	53	60	53.0
2000	0.32	0.61	2.4	223	239	53	60	58.5
2400	0.32	0.61	2.5	223	239	53	60	62.0
3200	0.32	0.61	2.6	223	239	53	60	70.0
4000*	0.32	0.48	2.6	223	239	68	75	66.0*
4800*	0.32	0.48	2.7	223	239	68	75	71.0*

* These cables have a reduced nominal insulation thickness of 0.48mm.

50	0.40	0.75	1.6	143	150	53	60	16.0
100	0.40	0.75	1.7	143	150	53	60	20.5
200	0.40	0.75	1.8	143	150	53	60	26.0
300	0.40	0.75	1.9	143	150	53	60	30.5
400	0.40	0.75	1.9	143	150	53	60	35.0
500	0.40	0.75	2.0	143	150	53	60	37.5
600	0.40	0.75	2.1	143	150	53	60	40.5
800	0.40	0.75	2.2	143	150	53	60	46.5
1000	0.40	0.75	2.3	143	150	53	60	51.5
1200	0.40	0.75	2.4	143	150	53	60	56.0
1600	0.40	0.75	2.6	143	150	53	60	65.5
2000	0.40	0.75	2.6	143	150	53	60	70.0

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
50	0.50	0.90	1.6	91	96	53	60	19.0
100	0.50	0.90	1.7	91	96	53	60	23.5
200	0.50	0.90	1.9	91	96	53	60	30.5
300	0.50	0.90	2.0	91	96	53	60	37.0
400	0.50	0.90	2.1	91	96	53	60	42.5
500	0.50	0.90	2.2	91	96	53	60	46.0
600	0.50	0.90	2.2	91	96	53	60	49.5
800	0.50	0.90	2.4	91	96	53	60	56.5
1000	0.50	0.90	2.5	91	96	53	60	62.5
1200	0.50	0.90	2.6	91	96	53	60	69.0
50	0.63	1.15	1.7	58	60	56	60	22.0
100	0.63	1.15	1.8	58	60	56	60	28.0
200	0.63	1.15	2.0	58	60	56	60	37.5
300	0.63	1.15	2.2	58	60	56	60	46.0
400	0.63	1.15	2.3	58	60	56	60	52.5
500	0.63	1.15	2.4	58	60	56	60	56.5
800	0.63	1.15	2.7	58	60	56	60	70.5
50	0.90	1.50	1.8	28	30	59	64	27.5
100	0.90	1.50	2.0	28	30	59	64	38.0

Note: Mutual capacitance values may be increased by 3% for cables with a nominal number of pairs less than 400pr.

Insulation resistance
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute theinsulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance Unbalance Measurement and Correction Factor
Pair to Pair capacitance unbalance measurements shall be made at a suitable audio frequency. During the measurements the aluminium foil and all conductors other than those under test shall be connected to earth. The measurements shall be corrected as follows, L being the length in metres of the cable under test. Lengths of less than 100 metres are considered as 100 metres.

½ [L/500 + (L/500)½]

Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed 275pF.

Binder colour identification
(double & quadruple units / centre & layers)

Unit	Position of Sub-Unit or Unit			
	First	Second	Third	Fourth
Double	BLUE	BLUE	ORANGE	ORANGE
Quadruple	BLUE	ORANGE	GREEN	BROWN

Position of Units		
Second	Third	Fourth
BLUE	ORANGE	ORANGE

CW1171 pair colour scheme, cable make-up and spare pair allowance

Cabling Element Number	a-wire	b-wire
1	WHITE	Blue
2	WHITE	Orange
3	WHITE	Green
4	WHITE	Brown
5	WHITE	Grey
6	RED	Blue
7	RED	Orange
8	RED	Green
9	RED	Brown
10	RED	Grey
11	BLACK	Blue
12	BLACK	Orange
13	BLACK	Green
14	BLACK	Brown
15	BLACK	Grey
16	YELLOW	Blue
17	YELLOW	Orange
18	YELLOW	Green
19	YELLOW	Brown
20	YELLOW	Grey
21	VIOLET	Blue
22	VIOLET	Orange
23	VIOLET	Green
24	VIOLET	Brown
25	VIOLET	Grey

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer				No. of Pairs in Spare Pair Unit	No. of Usable Pairs Allowed
	Centre	1st layer	2nd Layer	3rd Layer		
50	1 x 50	-	-	-	0	1
100	1 x 25	3 x (12 +13)	-	-	0	1
200	1 x 50 4 x 50	6 x 25 -	- -	- -	4	2
300	1 x 50 1 x 100	5 x 50 8 x 25	- -	- -	4	3
400	1 x 100	6 x 50	-	-	4	3
500	3 x 50 1 x 100	7 x 50 8 x 50	- -	- -	4	4
600	3 x 50 1 x 100	9 x 50 5 x 100	- -	- -	4	4
800	1 x 50 4 x 50	5 x 50 6 x 100	10 x 50 -	- -	4	5
1000	4 x 50 3 x 100	8 x 100 7 x 100	- -	- -	4	5
1200	3 x 100 4 x 100	9 x 100 8 x 100	- -	- -	4	5
1600	1 x 100	5 x 100	10 x 100	-	4	6
2000	4 x 50	6 x 100	12 x 100	-	8	6
2400	3 x 100	8 x 100	13 x 100	-	8	7
3200	1 x 100	5 x 100	10 x 100	16 x 100	8	7
4000	3 x 100	7 x 100	12 x 100	18 x 100	8	8
4800	4 x 100	9 x 100	15 x 100	20 x 100	8	8

Note: Alternative make-ups are shown for some sizes and as a further alternative any cable can be made up using 25 Pair Units throughout.

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External Distribution Side Local Network Telecom Cable

PACW/Cellular PE Insulation/PJ/PE Sheathed

External Telephone Cable (Complies with BT Specifications CW1128)

BRITISH CABLES COMPANY

CW1128 (DUCT) / 0.40Cu

Application

The cable is designed primarily for installing in ducts in the 'D' or Secondary side of local telecommunications networks. Various options are available including cable incorporating an aluminium/co-polymer-coated tape applied longitudinally over the paper core wrap acting as a moisture barrier (Compliant with BT Specification CW1179), aerial self supporting cable incorporating a steel support member for use in overhead applications (Compliant with BT Specification CW1252), and galvanised steel wire armoured version suitable for direct burial (Compliant with BT Specification CW1198). The product is also suitable for tropical climates available with filling compound with a drop point greater than 80°C.

Construction

Twisted pairs in 10 Pair Units. The pair range is 2 – 100.

Product description

Plain annealed solid copper wire, cellular polyethylene insulation, twisted pairs, petroleum jelly filling, paper core wrap and black low density polyethylene sheath.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
5	0.40	0.75	1.1	143	150	56	64	7.5
10	0.40	0.75	1.1	143	150	56	64	8.5
20	0.40	0.75	1.1	143	150	56	64	10.0
30	0.40	0.75	1.1	143	150	56	64	11.0
50	0.40	0.75	1.1	143	150	56	64	14.0
100	0.40	0.75	1.1	143	150	56	64	18.5

N.B. : For screened cables of 20 pairs or less the maximum average mutual capacitance shall not apply and the maximum for 99% of cases shall be increased by 3nF.

Insulation resistance

Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance

Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

CW1128 Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY

Unit Number	Binder Colour
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	GREY
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
	Centre	1st layer
2	1 x 2	-
5	1 x 5	-
10	1 x 10	-
20	4 x 5	-
	2 x 10	-
50	5 x 10	-
	1 x 10	4 x 10
100	2 x 10	8 x 10
	3 x 10	7 x 10
	4 x 5	8 x 10

Note: Options for the 2 pair cable are - Manufactured as a pair cable with cabling elements coloured as above.
Manufactured as a quad, coloured Orange Green, White, Black in order of rotation.

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External Distribution Side Local Network Telecom Cable

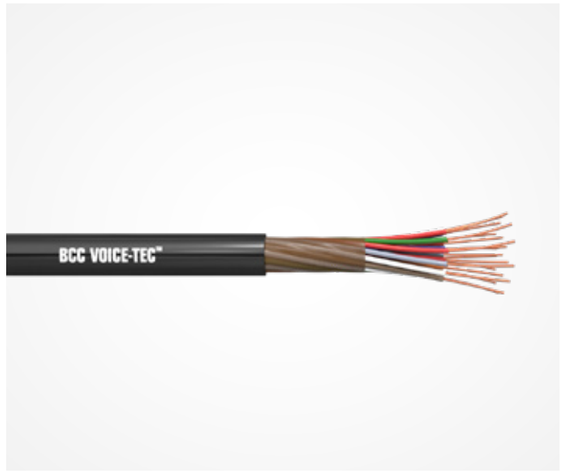
PACW/Cellular PE Insulation/PJ/PE Sheathed

External Telephone Cable (Complies with BT Specifications CW1128)

BRITISH CABLES COMPANY

CW1128 (DUCT) / 0.50Cu

Application
The cable is designed primarily for installing in ducts in the 'D' or Secondary side of local telecommunications networks. Various options are available including cable incorporating an aluminium/ co-polymer-coated tape applied longitudinally over the paper core wrap acting as a moisture barrier (Compliant with BT Specification CW1179), aerial self supporting cable incorporating a steel support member for use in overhead applications (Compliant with BT Specification CW1252), and galvanised steel wire armoured version suitable for direct burial (Compliant with BT Specification CW1198). The product is also suitable for tropical climates available with filling compound with a drop point greater than 80°C.



Construction
Twisted pairs in 10 Pair Units. The pair range is 2 – 100.

Product description
Plain annealed solid copper wire, cellular polyethylene insulation, twisted pairs, petroleum jelly filling, paper core wrap and black low density polyethylene sheath.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
2	0.50	0.90	1.1	91	96	56	64	7.5
5	0.50	0.90	1.1	91	96	56	64	8.0
6	0.50	0.90	1.1	91	96	56	64	9.0
10	0.50	0.90	1.1	91	96	56	64	9.5
20	0.50	0.90	1.2	91	96	56	64	12.0
50	0.50	0.90	1.3	91	96	56	64	16.5
100	0.50	0.90	1.4	91	96	56	64	22.0

N.B. : For screened cables of 20 pairs or less the maximum average mutual capacitance shall not apply and the maximum for 99% of cases shall be increased by 3nF.

Insulation resistance
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance
Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

CW1128 Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire	Unit Number	Binder Colour	Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
						Centre	1st layer
1	WHITE	BLUE	1	BLUE	2	1 x 2	-
2	WHITE	ORANGE	2	ORANGE	5	1 x 5	-
3	WHITE	GREEN	3	GREEN	10	1 x 10	-
4	WHITE	BROWN	4	BROWN	20	4 x 5	-
5	WHITE	GREY	5	GREY		2 x 10	-
6	RED	BLUE	6	WHITE	50	5 x 10	-
7	RED	ORANGE	7	RED		1 x 10	4 x 10
8	RED	GREEN	8	BLACK	100	2 x 10	8 x 10
9	RED	BROWN	9	YELLOW		3 x 10	7 x 10
10	RED	GREY	10	VIOLET		4 x 5	8 x 10

Note: Options for the 2 pair cable are - Manufactured as a pair cable with cabling elements coloured as above.
Manufactured as a quad, coloured Orange Green, White, Black in order of rotation.

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External Distribution Side Local Network Telecom Cable

PACW/Cellular PE Insulation/PJ/PE Sheathed

External Telephone Cable (Complies with BT Specifications CW1128)

BRITISH CABLES COMPANY

CW1128 (DUCT) / 0.60Cu

Application
The cable is designed primarily for installing in ducts in the 'D' or Secondary side of local telecommunications networks. Various options are available including cable incorporating an aluminium/ co-polymer-coated tape applied longitudinally over the paper core wrap acting as a moisture barrier (Compliant with BT Specification CW1179), aerial self supporting cable incorporating a steel support member for use in overhead applications (Compliant with BT Specification CW1252), and galvanised steel wire armoured version suitable for direct burial (Compliant with BT Specification CW1198). The product is also suitable for tropical climates available with filling compound with a drop point greater than 80°C.

Construction
Twisted pairs in 10 Pair Units. The pair range is 2 – 100.

Product description
Plain annealed solid copper wire, cellular polyethylene insulation, twisted pairs, petroleum jelly filling, paper core wrap and black low density polyethylene sheath.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
2	0.60	1.35	1.1	63	67	42	46	8.5
5	0.60	1.35	1.2	63	67	42	46	11.0
10	0.60	1.35	1.2	63	67	42	46	13.0
20	0.60	1.35	1.3	63	67	42	46	16.0
50	0.60	1.35	1.4	63	67	42	46	24.0
100	0.60	1.35	1.6	63	67	42	46	32.0

N.B. : For screened cables of 20 pairs or less the maximum average mutual capacitance shall not apply and the maximum for 99% of cases shall be increased by 3nF.

Insulation resistance
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance
Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

CW1128 Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire	Unit Number	Binder Colour	Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
						Centre	1st layer
1	WHITE	BLUE	1	BLUE	2	1 x 2	-
2	WHITE	ORANGE	2	ORANGE	5	1 x 5	-
3	WHITE	GREEN	3	GREEN	10	1 x 10	-
4	WHITE	BROWN	4	BROWN	20	4 x 5	-
5	WHITE	GREY	5	GREY		2 x 10	-
6	RED	BLUE	6	WHITE	50	5 x 10	-
7	RED	ORANGE	7	RED		1 x 10	4 x 10
8	RED	GREEN	8	BLACK	100	2 x 10	8 x 10
9	RED	BROWN	9	YELLOW		3 x 10	7 x 10
10	RED	GREY	10	VIOLET		4 x 5	8 x 10

Note: Options for the 2 pair cable are - Manufactured as a pair cable with cabling elements coloured as above.
Manufactured as a quad, coloured Orange Green, White, Black in order of rotation.

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External Distribution Side Local Network Telecom Cable

PACW/Cellular PE Insulation/PJ/PE Sheathed

External Telephone Cable (Complies with BT Specifications CW1128)

BRITISH CABLES COMPANY

CW1128 (DUCT) / 0.63Cu

Application
The cable is designed primarily for installing in ducts in the 'D' or Secondary side of local telecommunications networks. Various options are available including cable incorporating an aluminium/ co-polymer-coated tape applied longitudinally over the paper core wrap acting as a moisture barrier (Compliant with BT Specification CW1179), aerial self supporting cable incorporating a steel support member for use in overhead applications (Compliant with BT Specification CW1252), and galvanised steel wire armoured version suitable for direct burial (Compliant with BT Specification CW1198). The product is also suitable for tropical climates available with filling compound with a drop point greater than 80°C.

Construction
Twisted pairs in 10 Pair Units. The pair range is 2 – 100.

Product description
Plain annealed solid copper wire, cellular polyethylene insulation, twisted pairs, petroleum jelly filling, paper core wrap and black low density polyethylene sheath.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
2	0.63	1.15	1.1	58	60	56	64	8.0
5	0.63	1.15	1.1	58	60	56	64	9.5
10	0.63	1.15	1.2	58	60	56	64	11.5
20	0.63	1.15	1.2	58	60	56	64	14.0
50	0.63	1.15	1.4	58	60	56	64	20.5
100	0.63	1.15	1.5	58	60	56	64	27.5

N.B. : For screened cables of 20 pairs or less the maximum average mutual capacitance shall not apply and the maximum for 99% of cases shall be increased by 3nF.

Insulation resistance
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance
Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

CW1128 Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY

Unit Number	Binder Colour
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	GREY
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
	Centre	1st layer
2	1 x 2	-
5	1 x 5	-
10	1 x 10	-
20	4 x 5	-
	2 x 10	-
50	5 x 10	-
	1 x 10	4 x 10
100	2 x 10	8 x 10
	3 x 10	7 x 10
	4 x 5	8 x 10

Note: Options for the 2 pair cable are - Manufactured as a pair cable with cabling elements coloured as above.
Manufactured as a quad, coloured Orange Green, White, Black in order of rotation.

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External Distribution Side Local Network Telecom Cable

PACW/Cellular PE Insulation/PJ/PE Sheathed

External Telephone Cable (Complies with BT Specifications CW1128)

BRITISH CABLES COMPANY

CW1128 (DUCT) / 0.90Cu

Application
The cable is designed primarily for installing in ducts in the 'D' or Secondary side of local telecommunications networks. Various options are available including cable incorporating an aluminium/ co-polymer-coated tape applied longitudinally over the paper core wrap acting as a moisture barrier (Compliant with BT Specification CW1179), aerial self supporting cable incorporating a steel support member for use in overhead applications (Compliant with BT Specification CW1252), and galvanised steel wire armoured version suitable for direct burial (Compliant with BT Specification CW1198). The product is also suitable for tropical climates available with filling compound with a drop point greater than 80°C.

Construction
Twisted pairs in 10 Pair Units. The pair range is 2 – 100.

Product description
Plain annealed solid copper wire, cellular polyethylene insulation, twisted pairs, petroleum jelly filling, paper core wrap and black low density polyethylene sheath.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
2	0.90	1.50	1.1	28	30	59	65	9.0
5	0.90	1.50	1.2	28	30	59	65	11.5
10	0.90	1.50	1.2	28	30	59	65	14.0
20	0.90	1.50	1.3	28	30	59	65	18.0
50	0.90	1.50	1.5	28	30	59	65	26.5
100	0.90	1.50	1.7	28	30	59	65	36.0

N.B. : For screened cables of 20 pairs or less the maximum average mutual capacitance shall not apply and the maximum for 99% of cases shall be increased by 3nF.

Insulation resistance
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance
Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

CW1128 Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY

Unit Number	Binder Colour
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	GREY
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
	Centre	1st layer
2	1 x 2	-
5	1 x 5	-
10	1 x 10	-
20	4 x 5	-
	2 x 10	-
50	5 x 10	-
	1 x 10	4 x 10
100	2 x 10	8 x 10
	3 x 10	7 x 10
	4 x 5	8 x 10

Note: Options for the 2 pair cable are - Manufactured as a pair cable with cabling elements coloured as above.
Manufactured as a quad, coloured Orange Green, White, Black in order of rotation.

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External Distribution Side Local Network Telecom Cable

PACW/Cellular PE Insulation/PJ/LAP/Moisture Barrier/PE Sheathed
External Telephone Cable (Complies with BT Specifications CW1128/CW1179)

BRITISH CABLES COMPANY

CW1128/1179 (DUCT with moisture barrier) / 0.40Cu

Application
The cable is designed primarily for installing in ducts in the 'D' or Secondary side of local telecommunications networks. The cable incorporates an aluminium/co-polymer-coated tape applied longitudinally over the paper core wrap acting as a moisture barrier (Compliant with BT Specification CW1179). Various other options are available including aerial self supporting cable incorporating a steel support member for use in overhead applications (Compliant with BT Specification CW1252), and galvanised steel wire armoured version suitable for direct burial (Compliant with BT Specification CW1198). The product is also suitable for tropical climates available with filling compound with a drop point greater than 80°C.

Construction
Twisted pairs in 10 Pair Units. The pair range is 2 – 100.

Product description
Plain annealed solid copper wire, cellular polyethylene insulation, twisted pairs, petroleum jelly filling, paper core wrap, moisture barrier and black low density polyethylene sheath.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
5	0.40	0.75	1.1	143	150	56	64	9.0
10	0.40	0.75	1.1	143	150	56	64	10.0
20	0.40	0.75	1.1	143	150	56	64	11.5
30	0.40	0.75	1.1	143	150	56	64	12.0
50	0.40	0.75	1.1	143	150	56	64	15.5
100	0.40	0.75	1.1	143	150	56	64	20.0

N.B. : For screened cables of 20 pairs or less the maximum average mutual capacitance shall not apply and the maximum for 99% of cases shall be increased by 3nF.

Insulation resistance
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance
Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

CW1128 Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire	Unit Number	Binder Colour	Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
						Centre	1st layer
1	WHITE	BLUE	1	BLUE	2	1 x 2	-
2	WHITE	ORANGE	2	ORANGE	5	1 x 5	-
3	WHITE	GREEN	3	GREEN	10	1 x 10	-
4	WHITE	BROWN	4	BROWN	20	4 x 5	-
5	WHITE	GREY	5	GREY		2 x 10	-
6	RED	BLUE	6	WHITE	50	5 x 10	-
7	RED	ORANGE	7	RED		1 x 10	4 x 10
8	RED	GREEN	8	BLACK	100	2 x 10	8 x 10
9	RED	BROWN	9	YELLOW		3 x 10	7 x 10
10	RED	GREY	10	VIOLET		4 x 5	8 x 10

Note: The two pair cable is manufactured as a quad, coloured Orange, Green, White and Black in order of rotation.

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External Distribution Side Local Network Telecom Cable

PACW/Cellular PE Insulation/PJ/LAP/Moisture Barrier/PE Sheathed
External Telephone Cable (Complies with BT Specifications CW1128/CW1179)

BRITISH CABLES COMPANY

CW1128/1179 (DUCT with moisture barrier) / 0.50Cu

Application
The cable is designed primarily for installing in ducts in the 'D' or Secondary side of local telecommunications networks. The cable incorporates an aluminium/co-polymer-coated tape applied longitudinally over the paper core wrap acting as a moisture barrier (Compliant with BT Specification CW1179). Various other options are available including aerial self supporting cable incorporating a steel support member for use in overhead applications (Compliant with BT Specification CW1252), and galvanised steel wire armoured version suitable for direct burial (Compliant with BT Specification CW1198). The product is also suitable for tropical climates available with filling compound with a drop point greater than 80°C.

Construction
Twisted pairs in 10 Pair Units. The pair range is 2 – 100.

Product description
Plain annealed solid copper wire, cellular polyethylene insulation, twisted pairs, petroleum jelly filling, paper core wrap, moisture barrier and black low density polyethylene sheath.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
2	0.50	0.90	1.1	91	96	56	64	9.0
5	0.50	0.90	1.1	91	96	56	64	9.5
6	0.50	0.90	1.1	91	96	56	64	10.0
10	0.50	0.90	1.1	91	96	56	64	11.0
20	0.50	0.90	1.2	91	96	56	64	13.5
50	0.50	0.90	1.3	91	96	56	64	18.0
100	0.50	0.90	1.4	91	96	56	64	23.5

N.B. : For screened cables of 20 pairs or less the maximum average mutual capacitance shall not apply and the maximum for 99% of cases shall be increased by 3nF.

Insulation resistance
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance
Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

CW1128 Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire	Unit Number	Binder Colour	Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
						Centre	1st layer
1	WHITE	BLUE	1	BLUE	2	1 x 2	-
2	WHITE	ORANGE	2	ORANGE	5	1 x 5	-
3	WHITE	GREEN	3	GREEN	10	1 x 10	-
4	WHITE	BROWN	4	BROWN	20	4 x 5	-
5	WHITE	GREY	5	GREY		2 x 10	-
6	RED	BLUE	6	WHITE	50	5 x 10	-
7	RED	ORANGE	7	RED		1 x 10	4 x 10
8	RED	GREEN	8	BLACK	100	2 x 10	8 x 10
9	RED	BROWN	9	YELLOW		3 x 10	7 x 10
10	RED	GREY	10	VIOLET		4 x 5	8 x 10

Note: The two pair cable is manufactured as a quad, coloured Orange, Green, White and Black in order of rotation.

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External Distribution Side Local Network Telecom Cable

PACW/Cellular PE Insulation/PJ/LAP/Moisture Barrier/PE Sheathed

External Telephone Cable (Complies with BT Specifications CW1128/CW1179)

BRITISH CABLES COMPANY

CW1128/1179 (DUCT with moisture barrier) / 0.60Cu

Application

The cable is designed primarily for installing in ducts in the 'D' or Secondary side of local telecommunications networks. The cable incorporates an aluminium/co-polymer-coated tape applied longitudinally over the paper core wrap acting as a moisture barrier (Compliant with BT Specification CW1179). Various other options are available including aerial self supporting cable incorporating a steel support member for use in overhead applications (Compliant with BT Specification CW1252), and galvanised steel wire armoured version suitable for direct burial (Compliant with BT Specification CW1198). The product is also suitable for tropical climates available with filling compound with a drop point greater than 80°C.

Construction

Twisted pairs in 10 Pair Units. The pair range is 2 – 100.

Product description

Plain annealed solid copper wire, cellular polyethylene insulation, twisted pairs, petroleum jelly filling, paper core wrap, moisture barrier and black low density polyethylene sheath.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
2	0.60	1.35	1.1	63	67	42	46	10.0
5	0.60	1.35	1.2	63	67	42	46	12.5
10	0.60	1.35	1.2	63	67	42	46	14.5
20	0.60	1.35	1.3	63	67	42	46	17.5
50	0.60	1.35	1.4	63	67	42	46	25.5
100	0.60	1.35	1.6	63	67	42	46	33.5

N.B. : For screened cables of 20 pairs or less the maximum average mutual capacitance shall not apply and the maximum for 99% of cases shall be increased by 3nF.

Insulation resistance

Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance

Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

CW1128 Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY

Unit Number	Binder Colour
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	GREY
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
	Centre	1st layer
2	1 x 2	-
5	1 x 5	-
10	1 x 10	-
20	4 x 5	-
	2 x 10	-
50	5 x 10	-
	1 x 10	4 x 10
100	2 x 10	8 x 10
	3 x 10	7 x 10
	4 x 5	8 x 10

Note: The two pair cable is manufactured as a quad, coloured Orange, Green, White and Black in order of rotation.

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External Distribution Side Local Network Telecom Cable

PACW/Cellular PE Insulation/PJ/LAP/Moisture Barrier/PE Sheathed

External Telephone Cable (Complies with BT Specifications CW1128/CW1179)

BRITISH CABLES COMPANY

CW1128/1179 (with moisture barrier but no armour) / 0.63Cu

Application

The cable is designed primarily for installing in ducts in the 'D' or Secondary side of local telecommunications networks. The cable incorporates an aluminium/co-polymer-coated tape applied longitudinally over the paper core wrap acting as a moisture barrier (Compliant with BT Specification CW1179). Various other options are available including aerial self supporting cable incorporating a steel support member for use in overhead applications (Compliant with BT Specification CW1252), and galvanised steel wire armoured version suitable for direct burial (Compliant with BT Specification CW1198). The product is also suitable for tropical climates available with filling compound with a drop point greater than 80°C.

Construction

Twisted pairs in 10 Pair Units. The pair range is 2 – 100.

Product description

Plain annealed solid copper wire, cellular polyethylene insulation, twisted pairs, petroleum jelly filling, paper core wrap, moisture barrier and black low density polyethylene sheath.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
2	0.63	1.15	1.1	58	60	56	64	9.5
5	0.63	1.15	1.1	58	60	56	64	11.0
10	0.63	1.15	1.2	58	60	56	64	13.0
20	0.63	1.15	1.2	58	60	56	64	15.5
50	0.63	1.15	1.4	58	60	56	64	22.0
100	0.63	1.15	1.5	58	60	56	64	29.0

N.B. : For screened cables of 20 pairs or less the maximum average mutual capacitance shall not apply and the maximum for 99% of cases shall be increased by 3nF.

Insulation resistance

Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance

Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

CW1128 Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY

Unit Number	Binder Colour
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	GREY
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
	Centre	1st layer
2	1 x 2	-
5	1 x 5	-
10	1 x 10	-
20	4 x 5	-
	2 x 10	-
50	5 x 10	-
	1 x 10	4 x 10
100	2 x 10	8 x 10
	3 x 10	7 x 10
	4 x 5	8 x 10

Note: The two pair cable is manufactured as a quad, coloured Orange, Green, White and Black in order of rotation.

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External Distribution Side Local Network Telecom Cable

PACW/Cellular PE Insulation/PJ/LAP/Moisture Barrier/PE Sheathed
External Telephone Cable (Complies with BT Specifications CW1128/CW1179)

BRITISH CABLES COMPANY

CW1128/1179 (with moisture barrier but no armour) / 0.90Cu

Application
The cable is designed primarily for installing in ducts in the 'D' or Secondary side of local telecommunications networks. The cable incorporates an aluminium/co-polymer-coated tape applied longitudinally over the paper core wrap acting as a moisture barrier (Compliant with BT Specification CW1179). Various other options are available including aerial self supporting cable incorporating a steel support member for use in overhead applications (Compliant with BT Specification CW1252), and galvanised steel wire armoured version suitable for direct burial (Compliant with BT Specification CW1198). The product is also suitable for tropical climates available with filling compound with a drop point greater than 80°C.

Construction
Twisted pairs in 10 Pair Units. The pair range is 2 – 100.

Product description
Plain annealed solid copper wire, cellular polyethylene insulation, twisted pairs, petroleum jelly filling, paper core wrap, moisture barrier and black low density polyethylene sheath.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
2	0.90	1.50	1.1	28	30	59	65	10.5
5	0.90	1.50	1.2	28	30	59	65	13.0
10	0.90	1.50	1.2	28	30	59	65	15.5
20	0.90	1.50	1.3	28	30	59	65	19.5
50	0.90	1.50	1.5	28	30	59	65	28.0
100	0.90	1.50	1.7	28	30	59	65	37.5

N.B. : For screened cables of 20 pairs or less the maximum average mutual capacitance shall not apply and the maximum for 99% of cases shall be increased by 3nF.

Insulation resistance
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance
Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

CW1128 Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY

Unit Number	Binder Colour
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	GREY
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
	Centre	1st layer
2	1 x 2	-
5	1 x 5	-
10	1 x 10	-
20	4 x 5	-
	2 x 10	-
50	5 x 10	-
	1 x 10	4 x 10
100	2 x 10	8 x 10
	3 x 10	7 x 10
	4 x 5	8 x 10

Note: The two pair cable is manufactured as a quad, coloured Orange, Green, White and Black in order of rotation.

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External Distribution Side Local Network Telecom Cable

PACW/Cell PE Insulation/PJ/PE Sheathed/Steel Wire Armour/PE Oversheath
External Telephone Cable (Complies with BT Specifications CW1128/CW1179)

BRITISH CABLES COMPANY

CW1128/1198 (for direct burial) / 0.40Cu

Application
The cable is designed primarily for direct burial in the 'D' or Secondary side of local telecommunications networks. The cable core comprises units of cellular polyethylene insulated twin conductors flooded with petroleum jelly and wrapped with a paper tape. The cable core is then covered with a black polyethylene inner sheath. A layer of galvanised steel armour wires is then applied over the inner sheathed cable and an outer sheath of PE is applied over the armour wires. Compliant with BT Specification CW1198). The product is also suitable for tropical climates available with a PVC outer sheath in lieu of polyethylene and with filling compound with a drop point greater than 80°C.

Construction
Available as twisted pairs in 10 Pair Units with range from 2 to 100.

Product description
Plain annealed solid copper wire, cellular polyethylene insulation, twisted pairs, petroleum jelly filling, paper core wrap, blacklow density polyethylene sheath. The armour is used as additional protection of telecommunication cables for direct burial.

Product description (Continued)
The jelly filled or air core cable is armoured with a suitable number of galvanised mild steel wires applied directly over the polyethylene sheath of the cable. The wires shall comply with BS EN 10257 Part 1 except that the tensile strength shall be not less than 340 MN/m2 and not greater than 540 MN/ m2. The value of resistivity for the armour is not mandatory. The cable is then sheathed overall with PE or polyethylene.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
5	0.40	0.75	1.1	143	150	56	64	12.7
10	0.40	0.75	1.1	143	150	56	64	13.7
20	0.40	0.75	1.1	143	150	56	64	15.2
30	0.40	0.75	1.1	143	150	56	64	16.5
50	0.40	0.75	1.1	143	150	56	64	19.9
100	0.40	0.75	1.1	143	150	56	64	25.3

N.B. : For screened cables of 20 pairs or less the maximum average mutual capacitance shall not apply and the maximum for 99% of cases shall be increased by 3nF.

Insulation resistance
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance
Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

CW1128 Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY

Unit Number	Binder Colour
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	GREY
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
	Centre	1st layer
2	1 x 2	-
5	1 x 5	-
10	1 x 10	-
20	4 x 5	-
	2 x 10	-
30	3 x 10	-

Note: The two pair cable is manufactured as a quad, coloured Orange, Green, White and Black in order of rotation.

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External Distribution Side Local Network Telecom Cable

PACW/Cell PE Insulation/PJ/PE Sheathed/Steel Wire Armour/PE Oversheath
External Telephone Cable (Complies with BT Specifications CW1128/CW1179)

BRITISH CABLES COMPANY

CW1128/1198 (for direct burial) / 0.50Cu

Application
The cable is designed primarily for direct burial in the 'D' or Secondary side of local telecommunications networks. The cable core comprises units of cellular polyethylene insulated twin conductors flooded with petroleum jelly and wrapped with a paper tape. The cable core is then covered with a black polyethylene inner sheath. A layer of galvanised steel armour wires is then applied over the inner sheathed cable and an outer sheath of PE is applied over the armour wires. Compliant with BCC Specification CW1198). The product is also suitable for tropical climates available with a PVC outer sheath in lieu of polyethylene and with filling compound with a drop point greater than 80°C.

Construction
Available as twisted pairs in 10 Pair Units with range from 2 to 100.

Product description
Plain annealed solid copper wire, cellular polyethylene insulation, twisted pairs, petroleum jelly filling, paper core wrap, blacklow density polyethylene sheath. The armour is used as additional protection of telecommunication cables for direct burial.

Product description (Continued)
The jelly filled or air core cable is armoured with a suitable number of galvanised mild steel wires applied directly over the polyethylene sheath of the cable. The wires shall comply with BS EN 10257 Part 1 except that the tensile strength shall be not less than 340 MN/m2 and not greater than 540 MN/ m2. The value of resistivity for the armour is not mandatory. The cable is then sheathed overall with PE or polyethylene.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
2	0.50	0.90	1.1	91	96	56	64	12.7
5	0.50	0.90	1.1	91	96	56	64	13.2
6	0.50	0.90	1.1	91	96	56	64	13.8
10	0.50	0.90	1.1	91	96	56	64	14.7
20	0.50	0.90	1.2	91	96	56	64	17.2
50	0.50	0.90	1.3	91	96	56	64	23.3
100	0.50	0.90	1.4	91	96	56	64	29.0

N.B. : For screened cables of 20 pairs or less the maximum average mutual capacitance shall not apply and the maximum for 99% of cases shall be increased by 3nF.

Insulation resistance
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance
Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

CW1128 Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY

Unit Number	Binder Colour
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	GREY
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
	Centre	1st layer
2	1 x 2	-
5	1 x 5	-
10	1 x 10	-
20	4 x 5	-
	2 x 10	-
30	3 x 10	-

Note: The two pair cable is manufactured as a quad, coloured Orange, Green, White and Black in order of rotation.

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External Distribution Side Local Network Telecom Cable

PACW/Cell PE Insulation/PJ/PE Sheathed/Steel Wire Armour/PE Oversheath
External Telephone Cable (Complies with BT Specifications CW1128/CW1179)

BRITISH CABLES COMPANY

CW1128/1198 (for direct burial) / 0.60Cu

Application
The cable is designed primarily for direct burial in the 'D' or Secondary side of local telecommunications networks. The cable core comprises units of cellular polyethylene insulated twin conductors flooded with petroleum jelly and wrapped with a paper tape. The cable core is then covered with a black polyethylene inner sheath. A layer of galvanised steel armour wires is then applied over the inner sheathed cable and an outer sheath of PE is applied over the armour wires. Compliant with BT Specification CW1198). The product is also suitable for tropical climates available with a PVC outer sheath in lieu of polyethylene and with filling compound with a drop point greater than 80°C.

Construction
Available as twisted pairs in 10 Pair Units with range from 2 to 100.

Product description
Plain annealed solid copper wire, cellular polyethylene insulation, twisted pairs, petroleum jelly filling, paper core wrap, blacklow density polyethylene sheath. The armour is used as additional protection of telecommunication

Product description (Continued)
cables for direct burial. The jelly filled or air core cable is armoured with a suitable number of galvanised mild steel wires applied directly over the polyethylene sheath of the cable. The wires shall comply with BS EN 10257 Part 1 except that the tensile strength shall be not less than 340 MN/m2 and not greater than 540 MN/ m2. The value of resistivity for the armour is not mandatory. The cable is then sheathed overall with PE or polyethylene.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
2	0.60	1.35	1.1	63	67	42	46	13.7
5	0.60	1.35	1.2	63	67	42	46	16.2
10	0.60	1.35	1.2	63	67	42	46	18.9
20	0.60	1.35	1.3	63	67	42	46	22.8
50	0.60	1.35	1.4	63	67	42	46	31.0
100	0.60	1.35	1.6	63	67	42	46	40.2

N.B. : For screened cables of 20 pairs or less the maximum average mutual capacitance shall not apply and the maximum for 99% of cases shall be increased by 3nF.

Insulation resistance
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance
Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

CW1128 Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY

Unit Number	Binder Colour
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	GREY
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
	Centre	1st layer
2	1 x 2	-
5	1 x 5	-
10	1 x 10	-
20	4 x 5	-
	2 x 10	-
30	3 x 10	-

Note: The two pair cable is manufactured as a quad, coloured Orange, Green, White and Black in order of rotation.

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External Distribution Side Local Network Telecom Cable

PACW/Cell PE Insulation/PJ/LAP/PE Sheathed/Steel Wire Armour/PE Oversheath
External Telephone Cable (Complies with BT Specifications CW1128/CW1179)

BRITISH CABLES COMPANY

CW1128/1198 (for direct burial) / 0.63Cu

Application
The cable is designed primarily for direct burial in the 'D' or Secondary side of local telecommunications networks. The cable core comprises units of cellular polyethylene insulated twin conductors flooded with petroleum jelly and wrapped with a paper tape. The cable core is then covered with a black polyethylene inner sheath. A layer of galvanised steel armour wires is then applied over the inner sheathed cable and an outer sheath of PE is applied over the armour wires. Compliant with BT Specification CW1198). The product is also suitable for tropical climates available with a PVC outer sheath in lieu of polyethylene and with filling compound with a drop point greater than 80°C.

Construction
Available as twisted pairs in 10 Pair Units with range from 2 to 100.

Product description
Plain annealed solid copper wire, cellular polyethylene insulation, twisted pairs, petroleum jelly filling, paper core wrap, blacklow density polyethylene sheath. The armour is used as additional protection of telecommunication

Product description (Continued)
cables for direct burial. The jelly filled or air core cable is armoured with a suitable number of galvanised mild steel wires applied directly over the polyethylene sheath of the cable. The wires shall comply with BS EN 10257 Part 1 except that the tensile strength shall be not less than 340 MN/m2 and not greater than 540 MN/ m2. The value of resistivity for the armour is not mandatory.
The cable is then sheathed overall with PE or polyethylene.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
2	0.63	1.15	1.1	58	60	56	64	13.2
5	0.63	1.15	1.1	58	60	56	64	14.7
10	0.63	1.15	1.2	58	60	56	64	16.7
20	0.63	1.15	1.2	58	60	56	64	19.9
50	0.63	1.15	1.4	58	60	56	64	27.5
100	0.63	1.15	1.5	58	60	56	64	35.5

N.B. : For screened cables of 20 pairs or less the maximum average mutual capacitance shall not apply and the maximum for 99% of cases shall be increased by 3nF.

Insulation resistance
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance
Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

CW1128 Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY

Unit Number	Binder Colour
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	GREY
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
	Centre	1st layer
2	1 x 2	-
5	1 x 5	-
10	1 x 10	-
20	4 x 5	-
	2 x 10	-
30	3 x 10	-

Note: The two pair cable is manufactured as a quad, coloured Orange, Green, White and Black in order of rotation.

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Domestic Side Local Network Telecom Cable

PACW/Cell PE Insula on/PJ Filled/PE Sheathed/Steel Wire Armour/PE Oversheath
External Telephone Cable (Complies with BT Speci ca ons CW1128/CW1179)

BRITISH CABLES COMPANY

CW1128/1198 (with armour but no screen) / 0.90Cu

Application
The cable is designed primarily for direct burial in the 'D' or Secondary side of local telecommunica ons networks. The cable core comprises units of cellular polyethylene insulated twin conductors ooded with petroleum jelly and wrapped with a paper tape. The cable core is then covered with a black polyethylene inner sheath. A layer of galvanised steel armour wires is then applied over the inner sheathed cable and an outer sheath of PE is applied over the armour wires. Compliant with BT Speci ca on CW1198). The product is also available with a PVC outer sheath in lieu of polyethylene and with lling compound suitable for tropical climates with a drop point greater than 80oC.

Construction
Available as twisted pairs in 10 Pair Units with range from 2 to 100.

Product description
Plain annealed solid copper wire, cellular polyethylene insula on, twisted pairs, petroleum jelly lling, paper core wrap, moisture barrier bonded to black low-density polyethylene sheath. The armour is used as addi onal protec on of telecommunica on

Product description (Continued)
cables for direct burial. The jelly lled or air core cable is armoured with a suitable number of galvanised mild steel wires applied directly over the polyethylene sheath of the cable. The wires shall comply with BS EN 10257 Part 1 except that the tensile strength shall be not less than 340 MN/m2 and not greater than 540 MN/ m2. The value of resis vity for the armour is not mandatory.
The cable is then sheathed overall with PE or polyethylene.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
5	0.90	1.50	1.1	28	30	59	65	14.2
10	0.90	1.50	1.2	28	30	59	65	16.7
20	0.90	1.50	1.2	28	30	59	65	19.9
30	0.90	1.50	1.3	28	30	59	65	24.8
50	0.90	1.50	1.5	28	30	59	65	35.5
100	0.90	1.50	1.7	28	30	59	65	44.4

N.B. : For screened cables of 20 pairs or less the maximum average mutual capacitance shall not apply and the maximum for 99% of cases shall be increased by 3nF.

Insulation resistance
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance
Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

CW1128 Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY

Unit Number	Binder Colour
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	GREY
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
	Centre	1st layer
2	1 x 2	-
5	1 x 5	-
10	1 x 10	-
20	4 x 5	-
	2 x 10	-
30	3 x 10	-

Note: The two pair cable is manufactured as a quad, coloured Orange, Green, White and Black in order of rotation.

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External Distribution Side Local Network Telecom Cable

PACW/Cell PE/PJ/LAP/Moisture Barrier/PE/Steel Wire Armour/PE Oversheath
External Telephone Cable (Complies with BT Specifications CW1128,1179 and 1198)

BRITISH CABLES COMPANY

CW1128/1179/1198 (for direct burial with moisture barrier) / 0.40Cu

Application
The cable is designed primarily for direct burial in the 'D' or Secondary side of local telecommunications networks. The cable core comprises units of cellular polyethylene insulated twin conductors flooded with petroleum jelly and wrapped with a paper tape. The cable core is then covered with a black polyethylene inner sheath. A layer of galvanised steel armour wires is then applied over the inner sheathed cable and an outer sheath of PE is applied over the armour wires. Compliant with BT Specification CW1198). The product is also suitable for tropical climates available with a PVC outer sheath in lieu of polyethylene and with filling compound with a drop point greater than 80°C.

Construction
Twisted pairs in 10 Pair Units. The pair range is 2 – 100.

Product description
Plain annealed solid copper wire, cellular polyethylene insulation, twisted pairs, petroleum jelly filling, paper core wrap, moisture barrier bonded to blacklow density polyethylene sheath. The armour is used as additional protection of telecommunication

Product description (Continued)
cables for direct burial. The jelly filled or air core cable is armoured with a suitable number of galvanised mild steel wires applied directly over the polyethylene sheath of the cable. The wires shall comply with BS EN 10257 Part 1 except that the tensile strength shall be not less than 340 MN/m2 and not greater than 540 MN/m2. The value of resistivity for the armour is not mandatory.
The cable is then sheathed overall with PE or polyethylene.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
5	0.40	0.75	1.1	143	150	56	64	14.2
10	0.40	0.75	1.1	143	150	56	64	15.2
20	0.40	0.75	1.1	143	150	56	64	16.7
30	0.40	0.75	1.1	143	150	56	64	17.8
50	0.40	0.75	1.1	143	150	56	64	22.3
100	0.40	0.75	1.1	143	150	56	64	26.8

N.B. : For screened cables of 20 pairs or less the maximum average mutual capacitance shall not apply and the maximum for 99% of cases shall be increased by 3nF.

Insulation resistance
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance
Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

CW1128 Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY

Unit Number	Binder Colour
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	GREY
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
	Centre	1st layer
2	1 x 2	-
5	1 x 5	-
10	1 x 10	-
20	4 x 5	-
	2 x 10	-
25	1 x 5	2 x10
50	5 x 10	
	1 x 10	4 x 10
100	2 x 10	8 x 10
	3 x 10	7 x 10
	4 x 5	8 x 10

Note: Options for the 2 pair cable are - Manufactured as a pair cable with cabling elements coloured as above. Manufactured as a quad, coloured Orange Green, White, Black in order of rotation.

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External Distribution Side Local Network Telecom Cable

PACW/Cell PE/PJ/Moisture Barrier/PE Sheathed/Steel Wire Armour/PE Oversheath
External Telephone Cable (Complies with BT Specifications CW1128,1179 and 1198)

BRITISH CABLES COMPANY

CW1128/1179/1198 (for direct burial with moisture barrier) / 0.50Cu

Application
The cable is designed primarily for direct burial in the 'D' or Secondary side of local telecommunications networks. The cable core comprises units of cellular polyethylene insulated twin conductors flooded with petroleum jelly and wrapped with a paper tape. The cable core is then covered with a black polyethylene inner sheath. A layer of galvanised steel armour wires is then applied over the inner sheathed cable and an outer sheath of PE is applied over the armour wires. Compliant with BT Specification CW1198). The product is also suitable for tropical climates available with a PVC outer sheath in lieu of polyethylene and with filling compound with a drop point greater than 80°C.

Construction
Twisted pairs in 10 Pair Units. The pair range is 2 – 100.

Product description
Plain annealed solid copper wire, cellular polyethylene insulation, twisted pairs, petroleum jelly filling, paper core wrap and black low density polyethylene sheath.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
2	0.50	0.90	1.1	91	96	56	64	14.2
5	0.50	0.90	1.1	91	96	56	64	14.7
6	0.50	0.90	1.1	91	96	56	64	15.3
10	0.50	0.90	1.1	91	96	56	64	16.9
20	0.50	0.90	1.2	91	96	56	64	19.4
50	0.50	0.90	1.3	91	96	56	64	24.8
100	0.50	0.90	1.4	91	96	56	64	30.5

N.B. : For screened cables of 20 pairs or less the maximum average mutual capacitance shall not apply and the maximum for 99% of cases shall be increased by 3nF.

Insulation resistance
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance
Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

CW1128 Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY

Unit Number	Binder Colour
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	GREY
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
	Centre	1st layer
2	1 x 2	-
5	1 x 5	-
10	1 x 10	-
20	4 x 5	-
	2 x 10	-
25	1 x 5	2 x10
50	5 x 10	
	1 x 10	4 x 10
100	2 x 10	8 x 10
	3 x 10	7 x 10
	4 x 5	8 x 10

Note: Options for the 2 pair cable are - Manufactured as a pair cable with cabling elements coloured as above. Manufactured as a quad, coloured Orange Green, White, Black in order of rotation.

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External Distribution Side Local Network Telecom Cable

PACW/Cell PE/PJ/Moisture Barrier/PE Sheathed/Steel Wire Armour/PE Oversheath
External Telephone Cable (Complies with BT Specifications CW1128,1179 and 1198)

BRITISH CABLES COMPANY

CW1128/1179/1198 (for direct burial with moisture barrier) / 0.60Cu

Application
The cable is designed primarily for direct burial in the 'D' or Secondary side of local telecommunications networks. The cable core comprises units of cellular polyethylene insulated twin conductors flooded with petroleum jelly and wrapped with a paper tape. The cable core is then covered with a black polyethylene inner sheath. A layer of galvanised steel armour wires is then applied over the inner sheathed cable and an outer sheath of PE is applied over the armour wires. Compliant with BT Specification CW1198). The product is also suitable for tropical climates available with a PVC outer sheath in lieu of polyethylene and with filling compound with a drop point greater than 80°C.

Construction
Twisted pairs in 10 Pair Units. The pair range is 2 – 100.

Product description
Plain annealed solid copper wire, cellular polyethylene insulation, twisted pairs, petroleum jelly filling, paper core wrap and black low density polyethylene sheath.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
2	0.60	1.35	1.1	63	67	42	46	15.2
5	0.60	1.35	1.2	63	67	42	46	18.4
10	0.60	1.35	1.2	63	67	42	46	20.4
20	0.60	1.35	1.3	63	67	42	46	24.3
50	0.60	1.35	1.4	63	67	42	46	33.5
100	0.60	1.35	1.6	63	67	42	46	41.7

N.B. : For screened cables of 20 pairs or less the maximum average mutual capacitance shall not apply and the maximum for 99% of cases shall be increased by 3nF.

Insulation resistance
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance
Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

CW1128 Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY

Unit Number	Binder Colour
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	GREY
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
	Centre	1st layer
2	1 x 2	-
5	1 x 5	-
10	1 x 10	-
20	4 x 5	-
	2 x 10	-
25	1 x 5	2 x10
50	5 x 10	
	1 x 10	4 x 10
100	2 x 10	8 x 10
	3 x 10	7 x 10
	4 x 5	8 x 10

Note: Options for the 2 pair cable are - Manufactured as a pair cable with cabling elements coloured as above. Manufactured as a quad, coloured Orange Green, White, Black in order of rotation.

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External Distribution Side Local Network Telecom Cable

PACW/Cell PE/PJ/Moisture Barrier/PE Sheathed/Steel Wire Armour/PE Oversheath
External Telephone Cable (Complies with BT Specifications CW1128,1179 and 1198)

BRITISH CABLES COMPANY

CW1128/1179/1198 (for direct burial with moisture barrier) / 0.63Cu

Application
The cable is designed primarily for installing in ducts in the 'D' or Secondary side of local telecommunications networks. Various options are available including cable incorporating an aluminium/ co-polymer-coated tape applied longitudinally over the paper core wrap acting as a moisture barrier (Compliant with BT Specification CW1179), aerial self supporting cable incorporating a steel support member for use in overhead applications (Compliant with BT Specification CW1252), and galvanised steel wire armoured version suitable for direct burial (Compliant with BT Specification CW1198). The product is also suitable for tropical climates available with filling compound with a drop point greater than 80°C.

Construction
Twisted pairs in 10 Pair Units. The pair range is 2 – 100.

Product description
Plain annealed solid copper wire, cellular polyethylene insulation, twisted pairs, petroleum jelly filling, paper core wrap and black low density polyethylene sheath.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
2	0.63	1.15	1.1	58	60	56	64	14.7
5	0.63	1.15	1.1	58	60	56	64	16.2
10	0.63	1.15	1.2	58	60	56	64	18.9
20	0.63	1.15	1.2	58	60	56	64	22.3
50	0.63	1.15	1.4	58	60	56	64	29.0
100	0.63	1.15	1.5	58	60	56	64	37.0

N.B. : For screened cables of 20 pairs or less the maximum average mutual capacitance shall not apply and the maximum for 99% of cases shall be increased by 3nF.

Insulation resistance
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance
Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

CW1128 Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY

Unit Number	Binder Colour
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	GREY
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
	Centre	1st layer
2	1 x 2	-
5	1 x 5	-
10	1 x 10	-
20	4 x 5	-
	2 x 10	-
25	1 x 5	2 x10
50	5 x 10	
	1 x 10	4 x 10
100	2 x 10	8 x 10
	3 x 10	7 x 10
	4 x 5	8 x 10

Note: Options for the 2 pair cable are - Manufactured as a pair cable with cabling elements coloured as above. Manufactured as a quad, coloured Orange Green, White, Black in order of rotation.

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External Distribution Side Local Network Telecom Cable

PACW/Cell PE/PJ/Moisture Barrier/PE Sheathed/Steel Wire Armour/PE Oversheath
External Telephone Cable (Complies with BT Specifications CW1128,1179 and 1198)

BRITISH CABLES COMPANY

CW1128/1179/1198 (for direct burial with moisture barrier) / 0.90Cu

Application
The cable is designed primarily for installing in ducts in the 'D' or Secondary side of local telecommunications networks. Various options are available including cable incorporating an aluminium/co-polymer-coated tape applied longitudinally over the paper core wrap acting as a moisture barrier (Compliant with BT Specification CW1179), aerial self supporting cable incorporating a steel support member for use in overhead applications (Compliant with BT Specification CW1252), and galvanised steel wire armoured version suitable for direct burial (Compliant with BT Specification CW1198). The product is also suitable for tropical climates available with filling compound with a drop point greater than 80°C.

Construction
Twisted pairs in 10 Pair Units. The pair range is 2 – 100.

Product description
Plain annealed solid copper wire, cellular polyethylene insulation, twisted pairs, petroleum jelly filling, paper core wrap and black low density polyethylene sheath.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	
2	0.90	1.50	1.1	28	30	59	65	15.7
5	0.90	1.50	1.2	28	30	59	65	18.9
10	0.90	1.50	1.2	28	30	59	65	22.3
20	0.90	1.50	1.3	28	30	59	65	26.3
50	0.90	1.50	1.5	28	30	59	65	36.0
100	0.90	1.50	1.7	28	30	59	65	45.9

N.B. : For screened cables of 20 pairs or less the maximum average mutual capacitance shall not apply and the maximum for 99% of cases shall be increased by 3nF.

Insulation resistance
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance
Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

CW1128 Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY

Unit Number	Binder Colour
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	GREY
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
	Centre	1st layer
2	1 x 2	-
5	1 x 5	-
10	1 x 10	-
20	4 x 5	-
	2 x 10	-
25	1 x 5	2 x10
50	5 x 10	
	1 x 10	4 x 10
100	2 x 10	8 x 10
	3 x 10	7 x 10
	4 x 5	8 x 10

Note: Options for the 2 pair cable are - Manufactured as a pair cable with cabling elements coloured as above. Manufactured as a quad, coloured Orange Green, White, Black in order of rotation.

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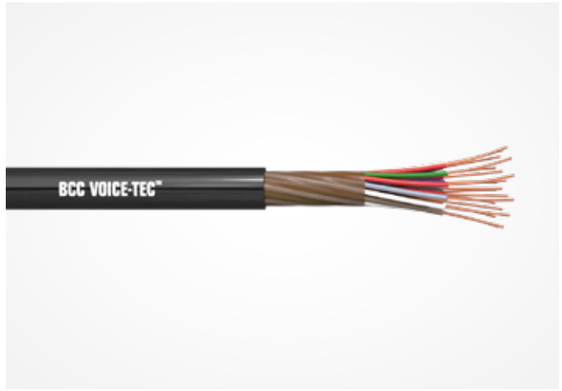
External Distribution Side Local Network Telecom Cable

PACW/solid polyethylene insulation/PJ filled/polyethylene sheath
External Telephone Cable (Complies with BT Specification CW1326)

BRITISH CABLES COMPANY

CW1326 - Solid insulation, jelly filled

Application
The cable is designed primarily for installing in ducts in the 'D' or Secondary side of local telecommunications networks. If required by the customer, the cable can be supplied with an aluminium/polymer-coated tape applied longitudinally over the paper core wrap acting as a moisture barrier. There are various other options available including a figure of eight type sheathed cable incorporating a steel support strand for use in aerial applications, and a galvanised steel wire armoured version suitable for direct burial.



Construction
Twisted pairs in 10 Pair Units. The pair range is 2 – 100.

Product description
Plain annealed solid copper wire, solid polyethylene insulation, twisted pairs, petroleum jelly filling, paper core wrap and blacklow density polyethylene sheath.

Number Pairs	Conductor Diameter (mm)	Maximum Insulated Diameter (mm)	Minimum Sheath Radial (mm)	Resistance @ 20°C (ohms/km)		Mutual Capacitance (nF/km)		Maximum Overall Diameter (mm)
				Max Ave	Max (99%)	Max Ave	Max (99%)	Unarmoured
								No Screen
2	0.50	1.05	1.1	91	96	56	64	8.5
5	0.50	1.05	1.2	91	96	56	64	8.5
10	0.50	1.05	1.2	91	96	56	64	12.0
20	0.50	1.05	1.3	91	96	56	64	15.0
30	0.50	1.05	1.4	91	96	56	64	18.0
50	0.50	1.05	1.4	91	96	56	64	19.5
100	0.50	1.05	1.5	91	96	56	64	25.0

Note 1: For screened cables of 20 pairs or less the maximum average mutual capacitance shall not apply and the maximum for 99% of cases shall be increased by 3nF.

Insulation resistance
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500megohms per 1000 metres at 20°C.

Capacitance unbalance
Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

CW1326 Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY

Unit Number	Binder Colour
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	GREY
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
	Centre	1st layer
2	1 x 2	-
5	1 x 5	-
10	1 x 10	-
20	4 x 5	-
	2 x 10	-
30	1 x 10	4 x 5
	1 x 5	5 x 5
50	3 x 10	-
	2 x 10	4 x 10
100	2 x 10	8x 10
	3 x 10	7 x 10
	4 x 5	8x 10

Note: Options for the 2 pair cable are - Manufactured as a pair cable with cabling elements coloured as above. Manufactured as a quad, coloured Orange Green, White, Black in order of rotation.

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External 2 Pair Dropwire Telephone Cable

PACW/PE insulation/Support Strands/PE sheathed

External Dropwire Telephone Cable (Complies with BT Specification CW1411)

BRITISH CABLES COMPANY

Dropwire 10B

Application
This cable is designed for overhead distribution lines, typically from a telegraph pole to the customer's premises.

Product description
The cable contains two 0.5mm plain solid copper pairs insulated with solid polyethylene and wrapped with a polyester tape, three elements of 3 x 0.25mm brass coated steel support strands insulated with PVC, and is sheathed overall with a medium density black polyethylene sheath.

Construction

Conductor:
0.5mm Plain Annealed Copper Wire (PACW)

Insulation:
Solid High Density Polyethylene

Diameter over Insulation:
1.02mm

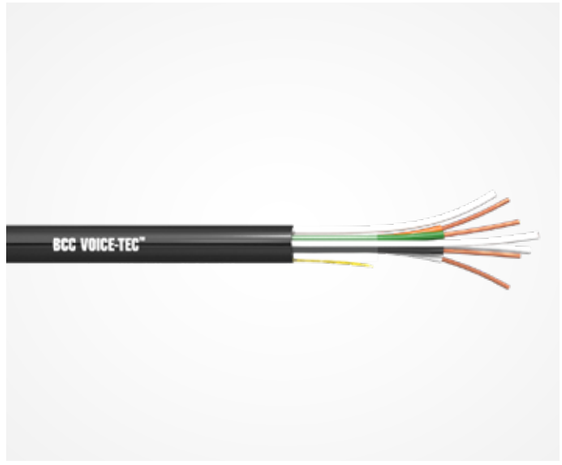
Colour code:
Pair 1: Orange/White
Pair 2: Green/Black

Core wrap:
Polyester Tape

Support strand:
Brass Plated Steel, 3 elements of 3 x 0.25mm strands, each element PVC

Ripcord:
Nylon

Identification:
Manufacturer's Thread to PD 2379



Jacket:
Black Medium Density Polyethylene
Minimum Thickness: 0.4mm
Minimum Diameter: 5.1mm
Target Diameter: 5.3mm
Maximum Diameter: 5.6mm

Electrical properties (20°C):
Maximum Conductor Resistance: 95 Ω/km
Maximum Mutual Capacitance: 56 nF/km
Maximum Capacitance Unbalance: 275 pF/500m
Minimum Insulation Resistance: 10,000 MΩ/km

Breaking load:
Minimum: 1350 Newtons
Maximum: 1550 Newtons

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External 1 Pair Dropwire Telephone Cable

PACW/PE insulation/Support Strands/PE sheathed

External Dropwire Telephone Cable (Complies with BT Specification CW1415)

BRITISH CABLES COMPANY

Dropwire 11

Application
This cable is designed for overhead distribution lines, typically from a telegraph pole to the customer's premises.

Product description
The cable contains one 0.5mm plain solid copper pairs insulated with solid polyethylene and wrapped with a polyester tape, three elements of 3 x 0.25mm brass coated steel support strands insulated with PVC, and is sheathed overall with a medium density black polyethylene sheath.

Construction

Conductor:
0.5mm Plain Annealed Copper Wire (PACW)

Insulation:
Solid High Density Polyethylene

Diameter over insulation:
0.93mm

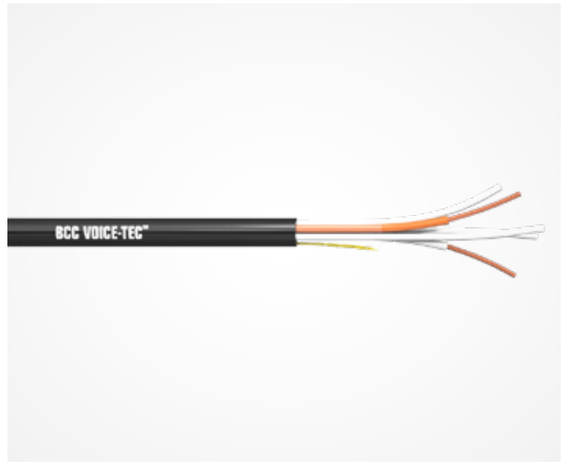
Colour code:
Pair 1: Orange/White

Core wrap:
Polyester Tape

Support strand:
Brass Plated Steel, 3 elements of 3 x 0.25mm strands, each element PVC Insulated

Ripcord:
Nylon

Identification:
Manufacturer's Thread to PD 2379 – Green/White incorporated in Ripcord.



Jacket:
Black Medium Density Polyethylene
Minimum Thickness: 0.4mm
Minimum Diameter: 5.1mm
Target Diameter: 5.3mm
Maximum Diameter: 5.6mm

Electrical properties (20°C):
Conductor Resistance: 95 Ω/km
Maximum Mutual Capacitance: 56 nF/km
Maximum Capacitance Unbalance: 275 pF/500m
Minimum Insulation Resistance: 10,000 MΩ/km

Breaking load:
Minimum: 1350 Newtons
Maximum: 1550 Newtons

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1 Pair Dropwire Telephone Cable

PACW/PE/Support Strand/PE

External Dropwire Telephone Cable (Complies with BT Specification CW1406)

BRITISH CABLES COMPANY

Dropwire 12

Application
This cable is designed for overhead distribution lines, typically from a telegraph pole to the customer's premises.

Product description
The cable contains one 0.9mm plain solid copper pair insulated with solid polyethylene and wrapped with a polyester tape, one element of 3 x 0.41mm brass coated steel support strands insulated with PVC, and is sheathed overall with a medium density black polyethylene sheath.

Construction

Conductor:
0.9mm Plain Annealed Copper Wire (PACW)

Dielectric:
Solid High Density Polyethylene

Diameter over dielectric:
1.50mm

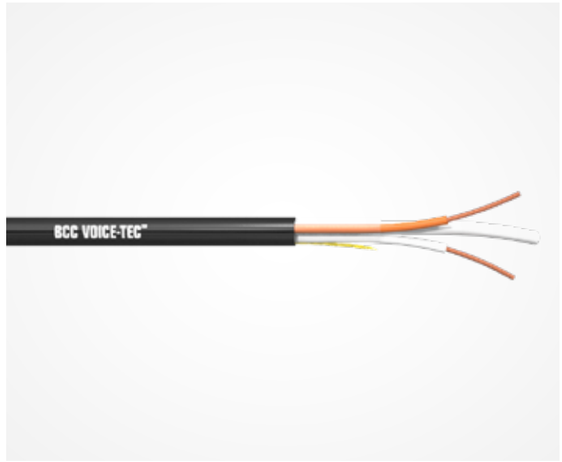
Colour code:
Orange/White

Core wrap:
Polyester Tape

Support strand:
Brass Plated Steel, 1 element of 3 x 0.41mm strands, PVC Insulated

Ripcord:
Nylon

Identification:
Manufacturer's Thread to PD 2379



Jacket:
Black MD Polyethylene
Minimum Thickness: 0.5mm
Minimum Diameter: 5.0mm
Target Diameter: 5.3mm
Maximum Diameter: 5.5mm

Electrical properties (20°C):
Conductor Resistance: 28 Ω/km
Minimum Insulation Resistance: 10,000 MΩ/km

Breaking load:
Minimum: 1350 Newtons
Maximum: 1550 Newtons

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External 4 Pair Dropwire Telephone Cable

PACW/PE insulation/Support Strands/PE sheathed

External Dropwire Telephone Cable (Complies with BT Specification CW1420)

BRITISH CABLES COMPANY

Dropwire 15

Application
This cable is designed for overhead distribution lines, typically from a telegraph pole to the customer's premises.

Product description
The cable contains four 0.5mm plain solid copper pairs insulated with solid polyethylene and wrapped with a polyester tape, brass coated steel support strands insulated with PVC, and is sheathed overall with a medium density black polyethylene sheath.

Construction

Conductor:
0.5mm Plain Annealed Copper Wire (PACW)

Insulation:
Solid High Density Polyethylene

Diameter over Insulation:
0.93±0.03mm

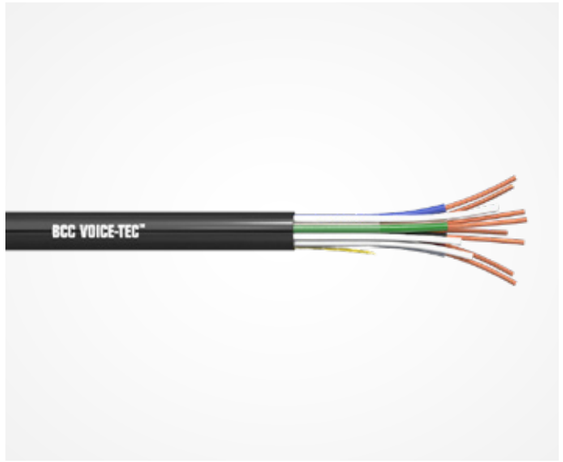
Colour code:
Pair 1: Orange/White
Pair 2: Green/Black
Pair 3: Red/Grey
Pair 4: Blue/Brown

Core wrap:
Polyester Tape

Support strand:
Brass Plated Steel, 3 elements of each element PVC Insulated

Ripcord:
Nylon

Identification:
Manufacturer's Thread to PD 2379 –
Green/White incorporated in Ripcord.



Jacket:
Black Medium Density Polyethylene
Minimum Thickness: 0.4mm
Minimum Diameter: 5.3mm
Target Diameter: 5.4mm
Maximum Diameter: 5.7mm

Electrical properties (20°C):
Conductor Resistance: 95 Ω/km
Maximum Mutual Capacitance: 56 nF/km
Maximum Capacitance Unbalance: 300 pF/500m
Minimum Insulation Resistance: 10,000 MΩ/km

Breaking load:
Minimum: 1350 Newtons
Maximum: 1550 Newtons

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External 2 Pair Downlead Telephone Cable

PACW/PE insulation/PET Tape/PE sheath inner/PVC outer

External Downlead Telephone Cable (Complies with BT Specification CW1412)

BRITISH CABLES COMPANY

Downlead

Application
This cable is designed for installation on external walls of customer's premises.

Product description
The cable contains two 0.5mm plain solid copper pairs insulated with medium density solid polyethylene and wrapped with a polyester tape; an inner sheath of black low density polyethylene, and an overall polyvinyl sheath. The outer sheath colour options are: Brown, Cream, Grey, and White.

Construction

Conductor:
0.5mm Plain Annealed Copper Wire (PACW)

Dielectric:
Solid High Density Polyethylene

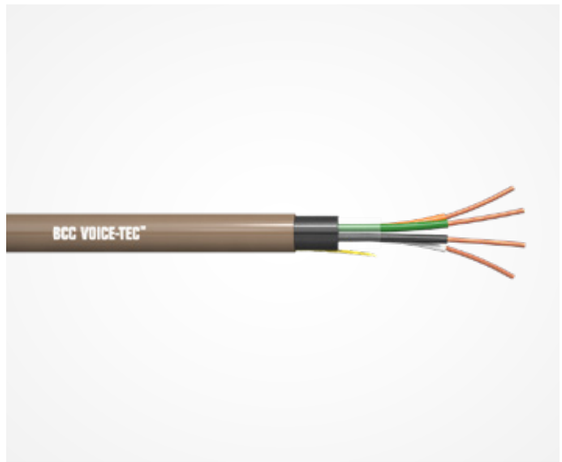
Diameter over dielectric:
0.89mm

Colour code:
Pair 1: Orange/White
Pair 2: Green/Black

Inner jacket:
Black low density polyethylene
Minimum radial thickness: 0.5mm
Target radial thickness: 0.8mm
Target inner diameter: 4.2mm

Core Wrap:
Polyester Tape

Ripcord:
Nylon



Identification:
Manufacturer's Thread to PD 2379

Jacket:
Polyvinyl Chloride (PVC)
Minimum Thickness: 0.4mm
Minimum Diameter: 5.1mm
Target Diameter: 5.3mm
Maximum Diameter: 5.6mm

Electrical properties (20°C):
Maximum Conductor Resistance: 95 Ω/km
Maximum Mutual Capacitance: 56 nF/km
Maximum Capacitance Unbalance: 275 pF/500m
Minimum Insulation Resistance: 10,000 MΩ/km

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Jumper Wire Series 9000

Plain Annealed Copper Wire / Polyvinyl Chloride Insulation

(Complies with BT Specification CW1423)

CPR COMPLIANT

BRITISH CABLES COMPANY

Jumper Wire series 9000

Application
This product is a robust PVC insulated plain copper annealed wire, available as a single wire or twisted pair. It is designed primarily for jumpering or hook up on distribution frames and is also used as a general equipment wire in cabinets and exchange equipment.

Product description

Conductors;
Plain annealed solid copper wire, 0.5mm nominal diameter.
Compliant with IEC Publication 60189-1

Insulation:
PVC insulation, nominal diameter

Colours:
As required, to BS 6746C

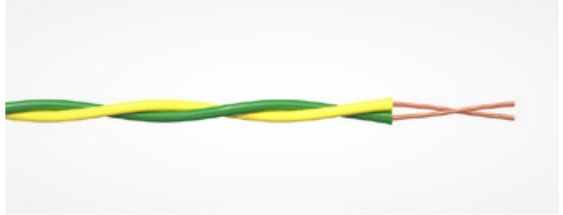
Electrical properties

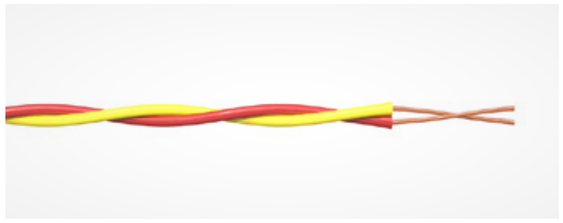
Conductor resistance:
98.0Ω/km Maximum

Insulation resistance:
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 50 MΩ when measured over a length of 1000 metres at 20°C

Solder bath:
The product meets the requirements of IEC Publication 60189-1

Flammability:
Oxygen index of greater than 26% by volume when measured in accordance with the requirements of BS 4066: Part 3-1994.Target inner diameter: 4.2mm





Supply detail:

Item	Form of Supply	Weight per Reel (kg)	Weight per km (kg)
Twin	200m cardboard reel	1.80	5.51
	500m cardboard reel	3.40	5.51
	600 m cardboard reel	4.00	5.51

Colours for insulation:

a-wire	b-wire
RED	YELLOW
GREEN	YELLOW

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Wire Connector

Tinned Annealed Copper Wire / Polyvinyl Chloride Insulation
(Complies with BT Specification CW1321 – Wire Connector 12000)

BRITISH CABLES COMPANY

Wire connector 12000

Application
This product is robust PVC insulated tinned copper annealed wire, available as a single wire, a twisted pair, twisted triple, twisted quad or twisted quintuple. It is intended for use with Insulation Displacement Connectors (IDC) when they are fitted to distribution frames in customer' premises.

Product description

Conductors;
Tinned annealed solid copper wire, 0.5mm nominal diameter. Compliant with IEC Publication 60344

Insulation:
PVC insulation, compliant with TI 54 in BS EN 50290-2 part 21, maximum diameter 1.0mm

Colours:
See Colours for insulation below

Electrical properties

Conductor resistance:
98.0Ω/km Maximum

Insulation resistance:
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 50 MΩ when measured over a length of 1000 metres at 20°C

Spark test:
The wires shall be spark tested at 10kV dc or 6kV rms in accordance with BS6004 or by an alternative method of equivalent sensitivity

Colours for insulation:

a-wire	b-wire
BLUE	YELLOW

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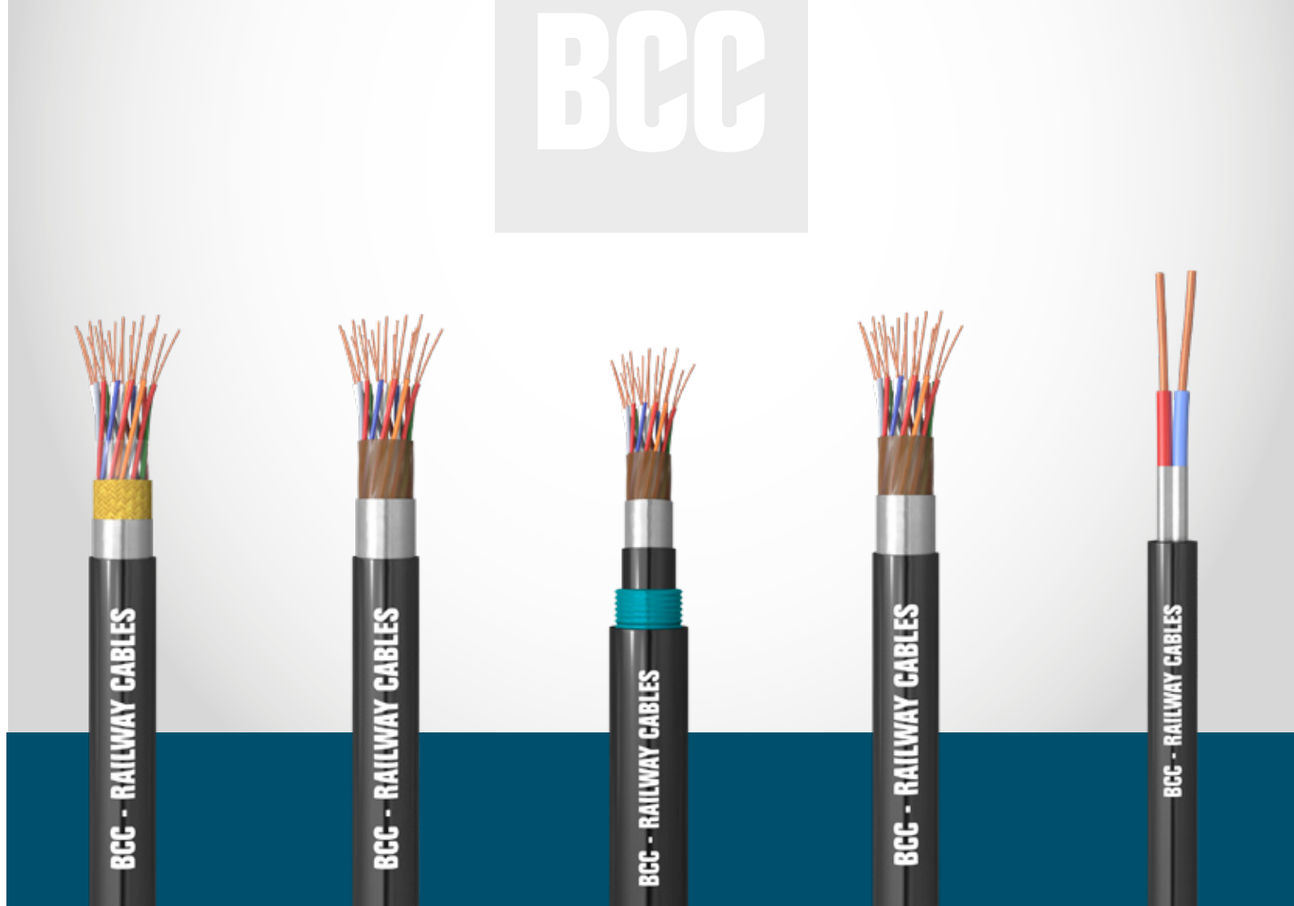
Section 2
Railway Cables



AzLM Axle Counter Cable

Compliant with NR/L2/SIG/30060 - Network Rail certificate of acceptance PA05/06474

BRITISH CABLES COMPANY

PE sheathed cable types

Application
Signalling in railway networks. Axle counter system for traffic management.

Family
Railway Signalling cables

Design

1. Conductor
Tinned copper wire

2. Insulation
Solid polyethylene

3. Twisting
Construction in pairs. Two pairs cable construction in quads

4. Stranding
Concentric Layers

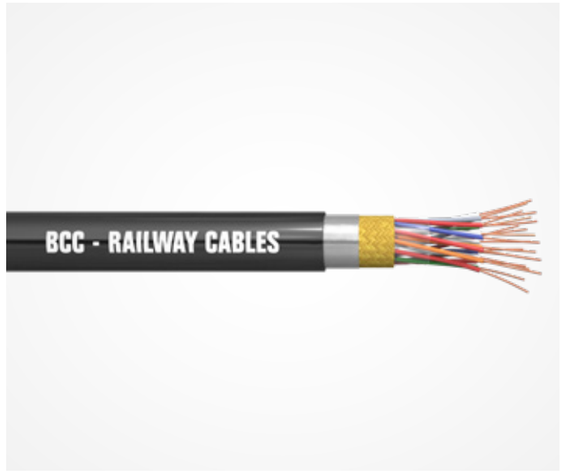
5. Filling compound
Petroleum jelly compound

6. Core wrapping
Plastic tape(s) with overlapping

7. Antirodent protection
glassfibre tape

8. Moisture barrier
Aluminiumpolymer laminate tape (incl Drain/continuity wire)

9. Sheath
PE (Polyethylene)



Physical characteristics

Cable Code	No. of Pairs	Conductor Diameter (mm)	Nominal Sheath Radial Thickness (mm)	Maximum Overall Diameter (mm)	Approximate Weight (kg/km)
XPS0902	2	0.9	2.5	13.8	190
XPS0910	10	0.9	2.5	24.7	435
XPS0912	12	0.9	2.5	26.4	490
XPS0919	19	0.9	2.5	61.4	685
XPS0924	24	0.9	2.5	34.5	815
XPS1402	2	1.4	2.5	19.5	305
XPS1410	10	1.4	2.5	31.4	815
XPS1412	12	1.4	2.5	33.8	915
XPS1419	19	1.4	2.5	40.8	1330
XPS1424	24	1.4	2.5	45.0	1620
XQS0902*	2	0.9	2.5	11.8	178
XQS1402*	2	1.4	2.5	16.4	285

N.B.* Quad variant

Construction Characteristics

Colour code for pair cable types

Pair Number	Insulation Colour	
	a - conductor	b - conductor
1	White	Blue
2	White	Orange
3	White	Green
4	White	Brown
5	White	Grey
6	Red	Blue
7	Red	Orange
8	Red	Green
9	Red	Brown
10	Red	Grey
11	Yellow	Blue
12	Yellow	Orange

Pair Number	Insulation Colour	
	a - conductor	b - conductor
13	Yellow	Green
14	Yellow	Brown
15	Yellow	Grey
16	Violet	Blue
17	Violet	Orange
18	Violet	Green
19	Violet	Brown
20	Violet	Grey
21	Turquoise	Blue
22	Turquoise	Orange
23	Turquoise	Green
24	Turquoise	Brown

Colour code for quad cable types

Pair Number	Insulation Colour	
	a - conductor	b - conductor
1	Orange	White
2	Green	Black

Core make-up

No. of Pairs in Cable	Pair No. in Each Layer		
	Centre	1st Layer	2nd Layer
2	1 &2	-	-
10	1 & 2	8	-
12	3	9	-
19	1	6	12
24	2	8	14

Electrical characeristics @ 20°C

Parameter	Unit	Frequency (kHz)	Value	
Conductor Diameter, nominal	mm	d.c.	0.90	1.40
Conductor Resistance, maximum average	Ω/km	d.c.	30	11.5
Resistance Unbalance, maximum	%	d.c.	5	
Insulation Resistance, 1 minute, 500 Vdc, minimum	MΩ.km	d.c.	5000	
Dielectric Strength, between conductors, 1 minute	kV	d.c.	2	
Mutual Capacitance, maximum average	nF/km	1.0	45.5	0
Attenuation, maximum average	dB/km	40	2.6	2.0
Characteristic Impedanace	Ω	90	135±10	

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AzLM Axle Counter Cable

Compliant with NR/L2/SIG/30060 - Network Rail certificate of acceptance PA05/06474

HFFR sheathed cable types

Application
Signalling in railway networks. Axle counter system for traffic management.

Family
Railway Signalling cables

Design

1. Conductor
Tinned copper wire

2. Insulation
Solid polyethylene

3. Twisting
Construction in pairs.
Two pairs cable construction also in quads

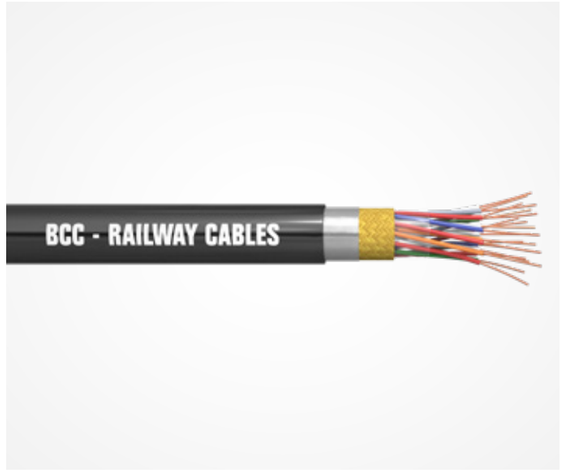
4. Stranding
Concentric Layers

5. Core wrapping
Plastic tape(s) with overlapping

6. Antirodent protection glassf ibre tape

7. Moisture barrier
Aluminium polymer laminate tape (incl Drain/continuity wire)

8. Sheath
HFFR Compound



Standards: NR/L2/SIG/30060 (March 2009)

Fire Performance: Only HFFR Versions

Flame Propagation IEC 60332-3

Halogen free IEC 60754

Flame retardant IEC 60332-1

Smoke Emission IEC 61034

Physical characteristics

Cable Code	No. of Pairs	Conductor Diameter (mm)	Nominal Sheath Radial Thickness (mm)	Maximum Overall Diameter (mm)	Approximate Weight (kg/km)
XPZ0902	2	0.9	2.5	13.8	260
XPZ0910	10	0.9	2.5	24.7	530
XPZ0912	12	0.9	2.5	26.4	590
XPZ0919	19	0.9	2.5	61.4	805
XPZ0924	24	0.9	2.5	34.5	950
XPZ1402	2	1.4	2.5	19.5	390
XPZ1410	10	1.4	2.5	31.4	950
XPZ1412	12	1.4	2.5	33.8	1055
XPZ1419	19	1.4	2.5	40.8	1500
XPZ1424	24	1.4	2.5	45.0	1810
XQZ0902*	2	0.9	2.5	11.8	240
XQZ1402*	2	1.4	2.5	16.4	350

N.B.* Quad variant

Construction Characteristics

Colour code for pair cable types

Pair Number	Insulation Colour	
	a - conductor	b - conductor
1	White	Blue
2	White	Orange
3	White	Green
4	White	Brown
5	White	Grey
6	Red	Blue
7	Red	Orange
8	Red	Green
9	Red	Brown
10	Red	Grey
11	Yellow	Blue
12	Yellow	Orange

Pair Number	Insulation Colour	
	a - conductor	b - conductor
13	Yellow	Green
14	Yellow	Brown
15	Yellow	Grey
16	Violet	Blue
17	Violet	Orange
18	Violet	Green
19	Violet	Brown
20	Violet	Grey
21	Turquoise	Blue
22	Turquoise	Orange
23	Turquoise	Green
24	Turquoise	Brown

Colour code for quad cable types

Pair Number	Insulation Colour	
	a - conductor	b - conductor
1	Orange	White
2	Green	Black

Core make-up

No. of Pairs in Cable	Pair No. in Each Layer		
	Centre	1st Layer	2nd Layer
2	1 &2	-	-
10	1 & 2	8	-
12	3	9	-
19	1	6	12
24	2	8	14

Electrical characeristics @ 20°C

Parameter	Unit	Frequency (kHz)	Value	
Conductor Diameter, nominal	mm	d.c.	0.90	1.40
Conductor Resistance, maximum average	Ω/km	d.c.	30	11.5
Resistance Unbalance, maximum	%	d.c.	5	
Insulation Resistance, 1 minute, 500 Vdc, minimum	MΩ.km	d.c.	5000	
Dielectric Strength, between conductors, 1 minute	kV	d.c.	2	
Mutual Capacitance, maximum average	nF/km	1.0	45.5	0
Attenuation, maximum average	dB/km	40	2.6	2.0
Characteristic Impedanace	Ω	90	135±10	

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Trackside Telecommunications Cable

PACW/ solid PE insulation/ PJ/ moisture barrier/PE sheathed

External Telephone Cable (Complies with Specifications NR/PS/TEL/00015 and TS0886)

- Network Rail certificate of acceptance - PA05/06233

External trackside telecoms cable Duct grade

Application

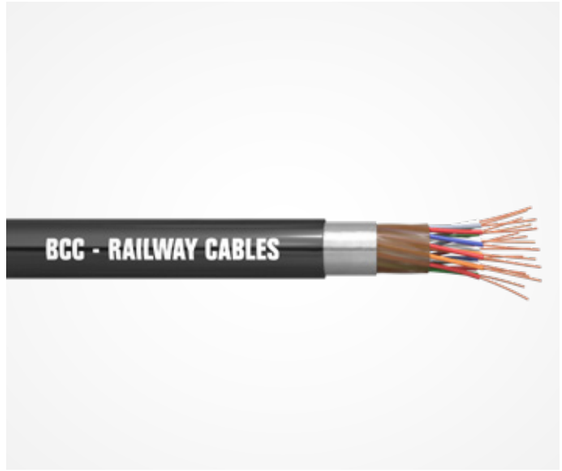
The cable is designed primarily for track-side railway installation in troughing. It is a petroleum jelly filled, twisted pair cable suitable for duct installation with a bonded moisture barrier block polyethylene sheath. It is available for direct buried or open channel installation with an additional protection of a bonded corrugated steel tape and sheath. The additional protection provides protection against rodent attack. The product satisfies the requirements of Network Rail Specification NR/PS/TEL/00015 (formerly GK/RT 0315) and Specifications TS0886 and BR1822 when armoured.

Construction

Twisted pairs in 10 Pair Units. The pair range is 2 – 100.

Product description

Plain annealed solid copper wire, solid polyethylene insulation, twisted pairs, petroleum jelly filling, water swellable tape, paper core wrap, black polyethylene sheath incorporating a longitudinally applied aluminium/polyethylene moisture barrier.



Number Pairs	BCC P/N	Nominal Cdr Size (mm)	Minimum Elongation (%)	Nominal Ins. Diameter (mm)	Duct / Inner Sheath Cable		Min Bend Radius (mm)	Cable Weight (kg/km)
					Min. Radial (mm)	Diameter Max. (mm)		
2	B10187101	0.63	15	1.15	1.6	10.5	126	59
5	B10187102	0.63	15	1.15	1.6	12.0	144	100
10	B10187103	0.63	15	1.15	1.6	13.8	166	156
20	B10180680	0.63	15	1.15	1.6	16.3	196	260
30	B10187104	0.63	15	1.15	1.6	18.6	224	360
50	B10187105	0.63	15	1.15	1.6	22.4	269	552
75	B10187106	0.63	15	1.15	1.6	26.4	317	785
100	B10181441	0.63	15	1.15	1.6	29.2	351	1015
2	B10188101	0.90	15	1.50	1.6	11.5	138	81
5	B10188102	0.90	15	1.50	1.6	13.8	166	152
10	B10188103	0.90	15	1.50	1.6	16.3	196	253
20	B10188104	0.90	15	1.50	1.6	20.1	242	443
30	B10188105	0.90	15	1.50	1.6	23.4	281	628
50	B10188106	0.90	15	1.50	1.6	28.2	339	988
75	B10188107	0.90	15	1.50	1.6	34.0	408	1431
100	B10188108	0.90	15	1.50	1.6	37.3	448	1872

Cable Size	Cu Size (mm)	Mutual Capacitance (nF/km)		Conductor Resistance @ 20°C (ohms)	
		Max Average	99%	Max Average	99%
20 Pairs or less	0.63	70.0	79	58.0	60.0
	0.90	79.0	85	28.0	30.0
More than 20 pairs	0.63	67.0	75.0	58.0	60.0
	0.90	75.0	81.0	28.0	30.0

Attenuation & Near –End Crosstalk	Cu Size (mm)	Measurement Frequency			
		1.0 kHz	2.4 kHz	1.024 MHz	
Attenuation dB/km (Max Ave)	0.63	1.40	2.15	18.70	
	0.90	0.95	1.46	14.60	
NEXTA (dB Minimum)		70.00	65.00	Within Unit	Between Unit
				40.00	47.00

Insulation resistance

Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance

Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY

Unit Number	Binder Colour
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	GREY
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
	Centre	1st layer
2	1 x 2	-
5	1 x 5	-
10	1 x 10	-
20	4 x 5	-
	2 x 10	-
30	6 x 5	-
	3 x 10	-
50	5 x 10	-
	1 x 10	4 x 10
75	3 x 5	6 x 10
100	2 x 10	8 x 10
	3 x 10	7 x 10
	4 x 5	8 x 10

PADS Cross Reference

	PADS Ref. No.	Pair/Cdr	BCC P/N	PADS Ref. No.	Pair/Cdr	BCC P/N
Duct PE	006/168001	2/0.63 **	B10187101	006/168051	2/0.9 **	B10188101
	006/168002	5/0.63	B10187102	006/168052	5/0.9	B10188102
	006/168003	10/0.63	B10187103	006/168053	10/0.9	B10188103
	006/168004	20/0.63	B10180680	006/168054	20/0.9	B10188104
	006/168005	30/0.63	B10187104	006/168055	30/0.9	B10188105
	006/168006	50/0.63	B10187105	006/168056	50/0.9	B10188106
	006/168007	75/0.63	B10187106	006/168057	75/0.9	B10188107
	006/168008	100/0.63	B10181441	006/168058	100/0.9	B10188108

** Indicates Quad cable

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Trackside Telecommunications Cable

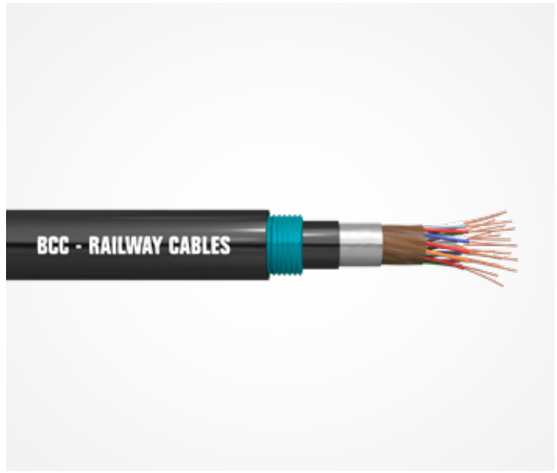
PACW/ solid PE insulation/PJ/moisture barrier/PE/CST/PE sheathed External Telephone Cable (Complies with Specifications NR/PS/TEL/00015 and TS0886/T1822) Network Rail certificate of acceptance - PA05/06233

External trackside telecoms cable armoured

Application
The cable is designed primarily for track-side railway installation. It is a petroleum jelly filled, twisted pair cable suitable for duct installation with a bonded moisture barrier sheath, and for buried or open channel installation, with an additional protection of a bonded corrugated steel tape and sheath. The additional protection provides protection against rodent attack. The product satisfies the requirements of Network Rail Specification NR/PS/TEL/00015 (formerly GK/RT 0315) and Specifications TS0886 and BR1822.

Construction
Twisted pairs in 10 Pair Units. The pair range is 2 – 100.

Product description
Plain annealed solid copper wire, solid polyethylene insulation, twisted pairs, petroleum jelly filling, water swellable tape, paper core wrap, black polyethylene sheath incorporating a longitudinally applied aluminium/polyethylene moisture barrier, and corrugated steel tape armour bonded to a black polyethylene sheath.



Number Pairs	BCC P/N	Nominal Cdr Size (mm)	Minimum Elongation (%)	Nominal Ins. Diameter (mm)	Duct / Inner Sheath Cable		Armoured Cable		Min Bend Radius (mm)	Cable Weight (kg/km)
					Min. Radial (mm)	Diameter Max. (mm)	Min. Radial (mm)	Diameter Max. (mm)		
2	B10181083	0.63	15	1.15	1.6	10.5	1.60	18.0	360	222
5	B10187107	0.63	15	1.15	1.6	12.0	1.60	19.5	390	296
10	B10180976	0.63	15	1.15	1.6	13.8	1.60	20.3	406	383
20	B10180704	0.63	15	1.15	1.6	16.3	1.60	23.8	476	504
30	B10187108	0.63	15	1.15	1.6	18.6	1.60	26.1	522	606
50	B10181181	0.63	15	1.15	1.6	22.4	1.60	29.9	598	903
75	B10187109	0.63	15	1.15	1.6	26.4	1.60	33.9	678	1202
100	B10180836	0.63	15	1.15	1.6	29.2	1.60	36.7	734	1463
2	B10180703	0.90	15	1.50	1.6	11.5	1.60	19.0	380	250
5	B10181572	0.90	15	1.50	1.6	13.8	1.60	21.3	426	370
10	B10181062	0.90	15	1.50	1.6	16.3	1.60	23.8	476	508
20	B10181078	0.90	15	1.50	1.6	20.1	1.60	27.6	552	782
30	B10180702	0.90	15	1.50	1.6	23.4	1.60	30.9	618	1000
50	B10180701	0.90	15	1.50	1.6	28.2	1.60	35.7	714	1402
75	B10181521	0.90	15	1.50	1.6	34.0	1.60	41.5	830	2055
100	B10180705	0.90	15	1.50	1.6	37.3	1.60	44.8	896	2550

Cable Size	Cu Size (mm)	Mutual Capacitance (nF/km)		Conductor Resistance @ 20°C (ohms)	
		Max Average	99%	Max Average	99%
20 Pairs or less	0.63	70.0	79	58.0	60.0
	0.90	79.0	85	28.0	30.0
More than 20 pairs	0.63	67.0	75.0	58.0	60.0
	0.90	75.0	81.0	28.0	30.0

Attenuation & Near –End Crosstalk	Cu Size (mm)	Measurement Frequency			
		1.0 kHz	2.4 kHz	1.024 MHz	
Attenuation dB/km (Max Ave)	0.63	1.40	2.15	18.70	
	0.90	0.95	1.46	14.60	
NEXTA (dB Minimum)		70.00	65.00	Within Unit	Between Unit
				40.00	47.00

Insulation resistance
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance
Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY

Unit Number	Binder Colour
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	GREY
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
	Centre	1st layer
2	1 x 2	-
5	1 x 5	-
10	1 x 10	-
20	4 x 5	-
	2 x 10	-
30	6 x 5	-
	3 x 10	-
50	5 x 10	-
	1 x 10	4 x 10
75	3 x 5	6 x 10
100	2 x 10	8 x 10
	3 x 10	7 x 10
	4 x 5	8 x 10

PADS Cross Reference

	PADS Ref. No.	Pair/Cdr	BCC P/N	PADS Ref. No.	Pair/Cdr	BCC P/N
Armoured PE	006/168011	2/0.63 **	B10181083	006/168061	2/0.9 **	B10180703
	006/168012	5/0.63	B10187107	006/168062	5/0.9	B10188102
	006/168013	10/0.63	B10180976	006/168063	10/0.9	B10181062
	006/168014	20/0.63	B10180704	006/168064	20/0.9	B10181078
	006/168015	30/0.63	B10187108	006/168065	30/0.9	B10180702
	006/168016	50/0.63	B10181181	006/168066	50/0.9	B10180701
	006/168017	75/0.63	B 10187109	006/168067	75/0.9	B10181521
	006/168018	100/0.63	B10180836	006/168068	100/0.9	B10180705

** Indicates Quad cable

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Trackside Telecommunications Cable

PACW/ solid PE insulation/moisture barrier/HFFR sheath

External Telephone Cable – suitable for tunnel and sub-surface applications (Complies with Specifications NR/PS/TEL/00015 and BR1916) Network Rail certificate of acceptance - PA05/06233

BRITISH CABLES COMPANY

HFFR trackside telecoms cable Duct grade (for tunnels and platforms)

Application

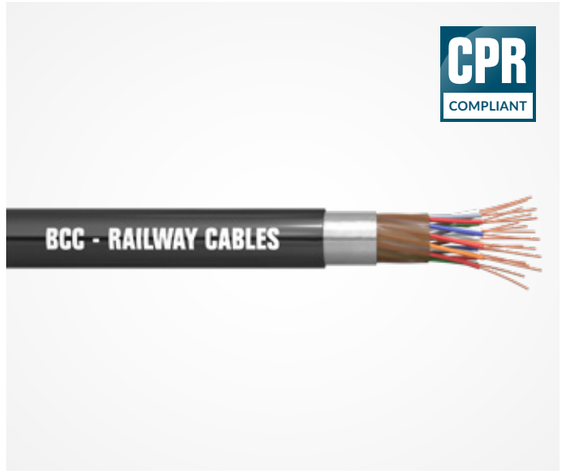
The cable is designed primarily for underground track-side railway installation. It is suitable for installation in ducts and on cable trays in tunnel wall. It is a twisted pair cable with fire barrier tapes and Moisture barrier bonded to a Thermoplastic HFFR Sheath.
The cable is also available with protection against crushing and rodent attack by the inclusion of a corrugates steel tape armour bonded to the outer HFFR sheath. The product satisfies the requirements of Network Rail Specification NR/PS/TEL/00015 (formerly TR/E/PS/00015 & BR1916/BR1822)

Construction

Twisted pairs in 10 Pair Units. The pair range is 2 – 100.

Product description

Plain annealed solid copper wire, solid polyethylene insulation, twisted pairs, fire barrier tapes, black HFFR thermoplastic sheath incorporating a longitudinally applied aluminium/polyethylene moisture barrier.



Number Pairs	BCC P/N	Nominal Cdr Size (mm)	Minimum Elongation (%)	Nominal Ins. Diameter (mm)	Duct / Inner Sheath Cable		Min Bend Radius (mm)	Cable Weight (kg/km)
					Min. Radial (mm)	Diameter Max. (mm)		
2	B10187110	0.63	15	1.15	2.5	12.3	148	120
5	B10187111	0.63	15	1.15	2.5	13.8	166	172
10	B10187112	0.63	15	1.15	2.5	15.6	188	240
20	B10180865	0.63	15	1.15	2.5	18.1	218	351
30	B10181531	0.63	15	1.15	2.5	20.4	245	454
50	B10187113	0.63	15	1.15	2.5	24.2	291	643
75	B10187114	0.63	15	1.15	2.5	28.2	339	865
100	B10187115	0.63	15	1.15	2.5	31.0	372	1080
2	B10188109	0.90	15	1.50	2.5	13.3	160	146
5	B10188110	0.90	15	1.50	2.5	16.1	194	234
10	B10188111	0.90	15	1.50	2.5	18.0	216	343
20	B10188112	0.90	15	1.50	2.5	21.9	263	537
30	B10188113	0.90	15	1.50	2.5	25.2	303	718
50	B10188144	0.90	15	1.50	2.5	30.0	360	1064
75	B10188115	0.90	15	1.50	2.5	35.8	430	1479
100	B10188116	0.90	15	1.50	2.5	39.1	470	1882

Cu Size (mm)	Mutual Capacitance (nF/km)		Conductor Resistance @ 20°C (ohms)	
	Max Average	99%	Max Average	99%
0.63	61	68	58.0	60.0
0.90	65	70	28.0	30.0

Attenuation & Near –End Crosstalk	Cu Size (mm)	Measurement Frequency			
		1.0 kHz	2.4 kHz	1.024 MHz	
Attenuation dB/km (Max Ave)	0.63	1.40	2.15	18.70	
	0.90	0.95	1.46	14.60	
NEXTA (dB Minimum)		70.00	65.00	Within Unit	Between Unit
				40.00	47.00

Insulation resistance

Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance

Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

Fire Test Performance

Smoke Emission
Compliant with BS6853, Appendix B and IEC 61034.

Flammability

Sheath materials has Temperature Index ≥ 260°C (BS6853 Appendix A).

Low Smoke Sheath

≤ 0.05% Halogenated material.

Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY

Unit Number	Binder Colour
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	GREY
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
	Centre	1st layer
2	1 x 2	-
5	1 x 5	-
10	1 x 10	-
20	4 x 5	-
	2 x 10	-
30	6 x 5	-
	3 x 10	-
50	5 x 10	-
	1 x 10	4 x 10
75	3 x 5	6 x 10
100	2 x 10	8 x 10
	3 x 10	7 x 10
	4 x 5	8 x 10

PADS Cross Reference

	PADS Ref. No.	Pair/Cdr	BCC P/N	PADS Ref. No.	Pair/Cdr	BCC P/N
Duct LSZH/HFFR	006/168021	2/0.63 **	B10187110	006/168071	2/0.9 **	B10188109
	006/168022	5/0.63	B10187111	006/168072	5/0.9	B10188110
	006/168023	10/0.63	B10187112	006/168073	10/0.9	B10188111
	006/168024	20/0.63	B10180865	006/168074	20/0.9	B10188112
	006/168025	30/0.63	B10181531	006/168075	30/0.9	B10188113
	006/168026	50/0.63	B10187113	006/168076	50/0.9	B10188114
	006/168027	75/0.63	B10187114	006/168077	75/0.9	B10188115
	006/168028	100/0.63	B10187115	006/168078	100/0.9	B10188116

** Indicates Quad cable

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Trackside Telecommunications Cable

PACW/ solid PE insulation/moisture barrier/HFFR sheath/CST/ HFFR Sheath External Telephone Cable – suitable for tunnel and sub-surface applications (Complies with Specifications NR/PS/TEL/00015 and BR1916/T1822)
Network Rail certificate of acceptance - PA05 /06233

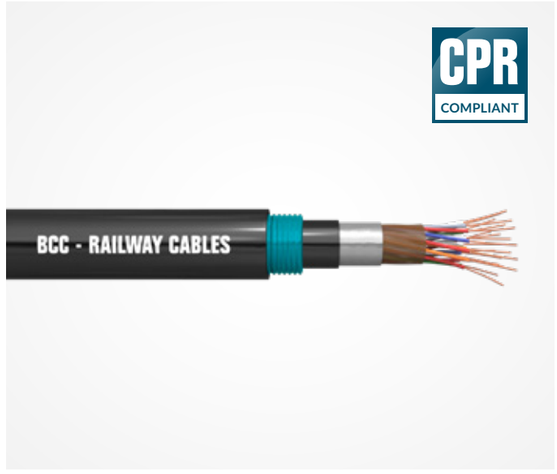
BRITISH CABLES COMPANY

HFFR trackside telecoms cable Armoured (for tunnels and platforms)

Application
The cable is designed primarily for underground track-side railway installation. It is suitable for installation in ducts and on cable trays in tunnel wall. It is a twisted pair cable with Moisture barrier bonded to an inner HFFR Sheath. The cable is protected against crushing and rodent attack by the inclusion of a corrugates steel tape armour bonded to the outer HFFR sheath.
The product satisfies the requirements of Network Rail Specification NR/PS/TEL/00015 (formerly TR/E/PS/00015 & BR1916/BR1822)

Construction
Twisted pairs in 10 Pair Units. The pair range is 2 – 100.

Product description
Plain annealed solid copper wire, solid polyethylene insulation, twisted pairs, barrier tapes, black HFFR thermoplastic sheath incorporating a longitudinally applied aluminium/polyethylene moisture barrier, and corrugated steel tape armour bonded to a HFFR thermoplastic sheath.



Number Pairs	BCC P/N	Nominal Cdr Size (mm)	Minimum Elongation (%)	Nominal Ins. Diameter (mm)	Duct / Inner Sheath Cable		Armoured Cable		Min Bend Radius (mm)	Cable Weight (kg/km)
					Min. Radial (mm)	Diameter Max. (mm)	Min. Radial (mm)	Diameter Max. (mm)		
2	B10187116	0.63	15	1.15	2.5	12.3	2.00	18.3	366	381
5	B10187117	0.63	15	1.15	2.5	13.8	2.00	21.8	436	469
10	B10187118	0.63	15	1.15	2.5	15.6	2.00	23.3	466	574
20	B10187119	0.63	15	1.15	2.5	18.1	2.00	26.1	522	738
30	B10187120	0.63	15	1.15	2.5	20.4	2.00	28.4	568	882
50	B10187121	0.63	15	1.15	2.5	24.2	2.00	32.2	644	1131
75	B10187122	0.63	15	1.15	2.5	28.2	2.00	36.2	724	1425
100	B10187123	0.63	15	1.15	2.5	31.0	2.00	39.0	780	1692
2	B10188117	0.90	15	1.50	2.5	13.3	2.00	28.5	570	405
5	B10180973	0.90	15	1.50	2.5	16.1	2.00	29.3	586	532
10	B10180974	0.90	15	1.50	2.5	18.0	2.00	33.0	660	674
20	B10180975	0.90	15	1.50	2.5	21.9	2.00	37.0	740	918
30	B10188118	0.90	15	1.50	2.5	25.2	2.00	40.0	800	1135
50	B10180991	0.90	15	1.50	2.5	30.0	2.00	45.0	900	1525
75	B10188119	0.90	15	1.50	2.5	35.8	2.00	51.0	1020	1980
100	B10188120	0.90	15	1.50	2.5	39.1	2.00	54.0	1080	2411

Cu Size (mm)	Mutual Capacitance (nF/km)		Conductor Resistance @ 20°C (ohms)	
	Max Average	99%	Max Average	99%
0.63	61	68	58.0	60.0
0.90	65	70	28.0	30.0

Attenuation & Near –End Crosstalk	Cu Size (mm)	Measurement Frequency			
		1.0 kHz	2.4 kHz	1.024 MHz	
Attenuation dB/km (Max Ave)	0.63	1.40	2.15	18.70	
	0.90	0.95	1.46	14.60	
NEXTA (dB Minimum)		70.00	65.00	Within Unit	Between Unit
				40.00	47.00

Insulation resistance
Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

Capacitance unbalance
Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed the following values: Two-Pair (Quad) Cable 800pF. All other sizes 275pF.

Fire Test Performance
Smoke Emission
Compliant with BS6853, Appendix B and IEC 61034.

Flammability
Sheath materials has Temperature Index ≥ 260°C (BS6853 Appendix A).

Low Smoke Sheath
≤ 0.05% Halogenated material.

Pair colour scheme, unit binder colours and cable make-up

Cabling Element No.	a-wire	b-wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY

Unit Number	Binder Colour
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	GREY
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET

Cable Size	No. and Pair Size of Unit in Centre and 1st Layer	
	Centre	1st layer
2	1 x 2	-
5	1 x 5	-
10	1 x 10	-
20	4 x 5	-
	2 x 10	-
30	6 x 5	-
	3 x 10	-
50	5 x 10	-
	1 x 10	4 x 10
75	3 x 5	6 x 10
100	2 x 10	8 x 10
	3 x 10	7 x 10
	4 x 5	8 x 10

PADS Cross Reference

	PADS Ref. No.	Pair/Cdr	BCC P/N	PADS Ref. No.	Pair/Cdr	BCC P/N
Armoured LSZH	006/168031	2/0.63 **	B10187116	006/168081	2/0.9 **	B10188117
	006/168032	5/0.63	B10187117	006/168082	5/0.9	B10180973
	006/168033	10/0.63	B10187118	006/168083	10/0.9	B10180974
	006/168034	20/0.63	B10187119	006/168084	20/0.9	B10180975
	006/168035	30/0.63	B10187120	006/168085	30/0.9	B10188118
	006/168036	50/0.63	B10187121	006/168086	50/0.9	B10180991
	006/168037	75/0.63	B10187122	006/168087	75/0.9	B10188119
	006/168038	100/0.63	B10187123	006/168088	100/0.9	B10188120

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Data link

Interconnecting Cable for SSI Systems

PACW/ PE Insulation/PE Inner Sheath/Moisture Barrier/PE Outer Sheath

External Telephone Cable (Complies with BR1932 : 1987)

Network Rail certificate of acceptance - PA05/06234

BRITISH CABLES COMPANY

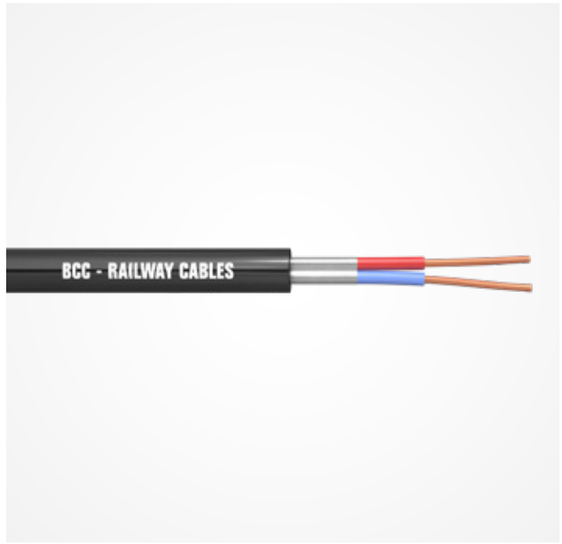
Application

The cable is designed primarily for external deployment in railway environments as the interconnecting cable for Solid State Interlocking (SSI) Systems. It is manufactured in accordance with Network Rail Specification BR1932 (Dec 1987). The cable is deployed in troughing or by direct burial. In the latter case, the thickness of the outer sheath is increased.

Construction

The cable core comprises two plain annealed copper conductors, insulated with solid polyethylene and forming a twisted pair with regular lay. The cable core is then covered with a polyester core wrap and a polyethylene inner sheath or bedding. A polymer-coated aluminium tape is applied longitudinally over the cable core wrap acting as a moisture barrier. The moisture barrier is bonded to the polyethylene outer sheath.

Variants includes a 5 mm outer polyethylene sheath to facilitate direct burial, HFFR Sheath and Rodent Resistant outer sheath incorporating a corrugated steel tape bonded to a polymeric sheath.



Physical parameters

BCC Part No.	No. of Pairs	Conductor Diameter (mm)	Insulated Conductor Diameter (mm)	Nominal Inner Sheath Diameter (mm)	Nominal Overall Diameter (mm)	Nominal Cable Weight (kg/km)	Application
10189500	1	1.27	2.60	8.3	13.6	136	DUCT
10189501	1	1.27	2.60	8.3	18.3	270	DIRECT BURIAL

Electrical parameters

Conductor Resistance @ 20°C (ohms/km)	Maximum Impedance (ohm @ 10 MHz)	Mutual Capacitance @10 kHz (nF/km)
14.0 1	00 ± 10	55

Insulation resistance

Insulation resistance measurement of each conductor shall be made with not less than 500 volts D.C. After steady electrification for five minutes the insulation resistance measured (with the remaining conductor and moisture barrier connected together) shall not be less than 40 Gohm per 1000 metres at 20°C.

Capacitance unbalance

The capacitance measure between each conductor and the moisture barrier shall be balanced within 4 pF/m.

Pair colour scheme

Cabling Element No.	a-wire	b-wire
1	RED	BLUE

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Section 3
Cables for Building Management Systems (BMS)

Cable Finder

BCC Data-Tec™ - LAN Cables

Category	Screening	AWG	Sheath	B2ca	Cca	Dca	Eca	Fca
Cat 5e	U-UTP	24	HFFR	77	78		79	
	U-UTP	24	PVC				80	
	U-UTP	24	PE					81
	F-UTP	24	HFFR			82		
Cat 6	U-UTP	23	HFFR	83	85		88	
	U-UTP	24	HFFR	84	86	87	89	
	U-UTP	23	PVC				90	
	U-UTP	24	PVC				91	
	U-UTP	23	PE					92
Cat 6A	U-FTP	23	HFFR	93	94	95		

BCC BMS-Tec™ - Paired Cables

Applica-tion	Cond.-Size ∨	No. of pairs >		1	2	3	4	5	6	7	8	Page
		Screen	Sheath									
RS-485	24 AWG	Foil+ braid	PVC	C1189	C1190	C1191	C1192					98
	24 AWG		HFFR	C1318	C1319	C1320	C1321					99
	22 AWG		PVC	C1080	C1295	C1296	C1297					98
	22AWG		HFFR	C1401	C1402	C1403	C1404					100
RS-422	24 AWG	Individually screened pairs foil	PVC		C1382	C1383	C1384		C1386			101
G.P. Bus	22 AWG		PVC		C1196	C1197	C1298	C1299	C1214			107
	22 AWG		HFFR		C1281	C1282			C1314			108
RS-232	24 AWG	Foil	PVC	C1181	C1182	C1183	C1184	C1185	C1186	C1187	C1188	102
RS-232	24 AWG	Foil	HFFR	C1441	C1442	C1443	C1444	C1445	C1446	C1447	C1448	103
RS-232	24 AWG	Foil	PE	C1451	C1452	C1453	C1454	C1455	C1456	C1457	C1458	104
Lon Works	0.64 mm	no scrn	HFFR	C1346	C1347							106
	0.64 mm	Individually screened pairs foil	HFFR	C1348	C1349							106
KNX	0.8 mm	Foil	PVC	C1219	C1217							105
	0.8 mm		HFFR	C1220	C1218							105
Security & Alarm	18 AWG	Foil	HFFR	C1171	C1172	C1173	C1174	C1175	C1176			113
		Foil + Braid	HFFR	C1418	C1419	C1420	C1421	C1422	C1423			114
BMS	0.6 mm²	Foil	PVC	C1381								115

Application	No.of pairs ∨	AWG conductor size >		22	20	18	16	14	12	Page
		Screen ∨	Sheath ∨							
G.P Bus	1	Yes	PVC	C1199	C1195	C1193	C1213	C1224	C1313	109
	1	Yes	HFFR	C1310	C1308	C1272	C1270	C1305	C1303	111
	1	No	PVC	C1301	C1300	C1203	C1198	C1222	C1302	110
	1	No	HFFR	C1311	C1309	C1271	C1307	C1306	C1304	112

Cable Finder

BCC BMS-Tec™ - Multi-Conductor Cables

Cond. Size AWG ∨	No. of conductors >		2	3	4	6	8	Page
	Sheath ∨	Screen						
22	PVC	Yes	C1226	C1228	C1230	C1264	C1232	117
		No	C1227	C1278	C1231	C1265	C1233	123
	HFFR	Yes	C1741	C1743	C1745	C1747	C1749	129
		No	C1742	C1744	C1746	C1748	C1750	135
20	PVC	Yes	C1019	C1021	C1023	C1260	C1262	118
		No	C1020	C1022	C1024	C1261	C1263	124
	HFFR	Yes	C1731	C1733	C1735	C1737	C1739	130
		No	C1732	C1734	C1736	C1738	C1740	136
18	PVC	Yes	C1013	C1015	C1017	C1211	C1258	119
		No	C1014	C1016	C1018	C1212	C1259	125
	HFFR	Yes	C1721	C1723	C1725	C1727	C1729	131
		No	C1722	C1724	C1726	C1728	C1730	137
	UV-HFFR	Yes	C1351	C1352	C1353	C1354	C1355	141
16	PVC	Yes	C1007	C1009	C1011	C1252	C1254	120
		No	C1008	C1010	C1012	C1253	C1255	126
	HFFR	Yes	C1711	C1713	C1715	C1717	C1719	132
		No	C1712	C1714	C1716	C1718	C1720	138
	UV-HFFR	Yes	C1391	C1392	C1393	C1394	C1395	142
14	PVC	Yes	C1001	C1003	C1005	C1248	C1250	121
		No	C1002	C1004	C1006	C1249	C1251	127
	HFFR	Yes	C1701	C1703	C1705	C1707	C1709	133
		No	C1702	C1704	C1706	C1708	C1710	139
12	PVC	Yes	C1322	C1324	C1326	C1330	C1332	122
		No	C1323	C1325	C1327	C1331	C1333	128
	HFFR	Yes	C1334	C1336	C1338	C1342	C1344	134
		No	C1335	C1337	C1339	C1343	C1345	140

No. of conductors	Conductor size >		22 AWG	20 AWG	18 AWG	Page
	Sheath ∨	Screen				
3	PVC	Yes	C1215	C1245	C1225	143

Multi-Conductor Power Limited Tray Cables (PLTC) are available on request

Cable Finder

BCC Security-Tec™ - Coaxial Cables

Application	InnerConductor	Screen	Sheath	RG-59	RG-6	RG-11	Page
CCTV	Solid BC	Braid BC	PVC	C1028	C1029	C1030	145
	Solid BC	Braid BC	HFFR	C1428	C1429	C1430	146
	Flex BC	Braid BC	PVC	C1275	C1276	C1277	147
SMATV CATV	CCS	Foil+Alu Braid	PVC	C1025	C1026	C1027	148
	CCS	Quad screen	PVC	C1256	C1257	C1241	149
HDTV	Solid BC	Foil+TC Braid	PVC	C1229	C1279	C1280	150
	Solid BC	Foil+TC Braid	HFFR	C1378	C1379	C1380	151

50 Ohm Coaxial cables are available on request

BCC Industrial Tec™ - Def Stan Cables

Conductor	7 x 0.1 mm = 0.055 mm²									
No. of cores	2	3	4	6	9	15	25	36	50	Page
Screened	C1164	C1165			C1166		C1168	C1169	C1365	153
Unscreened	C1360	C1361	C1362	C1144	C1145	C1146	C1147	C1148	C1364	153

Conductor	7 x 0.2mm = 0.22 mm²								
No. of cores	2	3	4	6	8	12	20	36	Page
Screened			C1471	C1472	C1473	C1474	C1475	C1476	153
Unscreened	C1366	C1367	C1368	C1369	C1154	C1155	C1156	C1157	153

Conductor	16 x 0.2 mm = 0.5 mm²						
No. of cores	2	3	4	6	12	18	Page
Screened			C1177	C1178	C1375	C1180	153
Unscreened	C1158	C1370	C1371	C1372	C1373	C1374	153

Cable Finder

BCC Industrial-Tec™ - Control Cables

	YY Series (N stranded cores surrounded by a PVC sheath)							
No. of cores	3	4	5	7	8	12	18	Page
Conductor 0.75 mm² (24x0.2 mm)	C1631	C1635				C1645	C1648	155
Conductor 1.0 mm² (32x0.2 mm)	C1632	C1636						155
Conductor 1.5 mm² (30x0.24 mm)	C1633	C1637	C1639	C1641	C1643	C1646	C649	155
Conductor 2.5 mm² (50x0.24 mm)	C1634	C1638	C1640	C1642	C1644	C1647	C1650	155

	CY Series (N stranded cores surrounded by a braiding plus a PVC sheath)			
No. of cores	3	4	5	Page
Conductor 0.75 mm² (24x0.2 mm)	C1620	C1624		155
Conductor 1.0 mm² (32x0.2 mm)	C1621	C1625		155
Conductor 1.5 mm² (30x0.24 mm)	C1622	C1626	C1628	155
Conductor 2.5 mm² (50x0.24 mm)	C1623	C1627	C1629	155

	SY Series (N stranded cores surrounded by Steel Wire Armouring plus a PVC sheath)								
No. of cores	2	3	4	5	7	12	18	25	Page
Conductor 0.75 mm² (24x0.2 mm)		C1655							156
Conductor 1.0 mm² (32x0.2 mm)	C1651	C1656	C1660	C1665	C1669	C1671	C1673	C1675	156
No. of cores	2	3	4	5	6	7	12	18	
Conductor 1.5 mm² (30x0.24 mm)	C1652	C1657	C1661	C1666	C1668	C1670	C1672	C1674	156
Conductor 2.5 mm² (50x0.24 mm)		C1658	C1662						156
Conductor 4.0 mm² (56x0.29 mm)		C1659	C1663						156
Conductor 6.0 mm² (84x0.29 mm)			C1664						156

BCC Data-Tec™ - Category LAN Cables

Application and Construction of Category Cables for Local Area Networks and Structured Wiring Systems

Application

Horizontal or Building Wiring for one of the following categories of twisted pair cabling systems

Category	Max. data rate	Usual application	Standard(s)		
			TIA/EIA	ISO/IEC	EN
Cat 1	1 Mbps	Analogue voice	De facto, never a standard		
Cat 2	4 Mbps	Token ring of IBM			
Cat 3	16 Mbps	Voice, 10MbE (thernet)	TIA/EIA 568-B		
Cat 4	20 Mbps	16 Mbps Token Ring	Was only a standard briefly		
Cat 5	100 Mbps	10/100/1000 MbE 155 Mbps ATM, 4/16 Mbps Token Ring	Replaced by 5e		
Cat 5e	100 Mbps		TIA/EIA 568-C.2	ISO/IEC 11806, 2nd edition	EN 50173-1 EN 50288
Cat 6	250 Mbps	as Cat5e plus 10Gb Ethernet over ≤ 55 m.			
Cat 6a	500 Mbps	As Cat 6 plus 10Gb Ethernet over 100 m.			
Cat 7	600 Mbps	As Cat 6a plus supporting 100GbE		ISO/IEC 11801: 2002, category 7 / class F	
Cat 7a	1000 Mbps	CATV (862 MHz), 40GBASE-T over 50 m. 100GbE over 15 m.	Cat 7a is not recognised in TIA/EIA-569	ISO/IEC 11801, amendment 1 (2008) and amendment 2 (2010).	

Basic Cable Construction of the standard cables (not being patch cables)

Wire = Conductor with Insulation
Insulation: will be good strippable, suitable for insulation displacement and coloured. The colours are not interchangeable.
Pair = two twisted – colour coded – wires.
Individually screened pair (if applicable): one pair wrapped with an Aluminium/Polyester foil under which a drain wire.
Braiding (if applicable): tinned copper wires.
Ripcord: to ease removal of the sheath.
Sheath: PVC or Halogen-Free (HFFR).

	Cat 3	Cat 5e		Cat 6		Cat 6a		Cat 7	Cat 7a
Type	UUTP	UUTP	FUTP	UUTP	FUTP	UUTP	UFTP & FUTP	S-FTP	S-FTP
Conductor	Solid BC	Solid BC		Solid BC		Solid BC		Solid BC	Solid BC
Insulation	Polyolefin	PE		PE		Skin-foam-skin PE			
Cable core	6 to 200 pairs	4 pairs					4 Individually screened pairs		
Core wrapping	Yes	No							
Drain wire	No	No	Yes	No	Yes	No	Central drain wire		
Overall screen	No	No	Foil	No	Foil			Braiding	
Sheath	PVC	PVC or HFFR						HFFR	

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 5e U/UTP Cable - B2ca-s1a, d1, a1

B2ca-s1a, d1, a1
DoP: BCC1001

CPR COMPLIANT

BCC BRITISH CABLES COMPANY

Applications

This cable is suitable for internal use of Local Area Networks and Analogue & Digital video applications

Category

5e Data Cables

Standard References

ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-3-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design

1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Ripcord
Nylon

4. Sheath
HFFR - Orange

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.49 (±0.01)	0.88 (±0.05)	5.00 (±0.2)	28	-20 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	98	5.6	65	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	65.3	62.3	63.8	60.8	20.0	45
4	4.1	56.3	55.3	51.8	48.8	23.0	45
8	5.8	51.8	48.8	45.7	42.7	24.5	45
10	6.5	50.3	47.3	43.8	40.8	25.0	45
16	8.2	47.2	44.2	39.7	36.7	25.0	45
20	9.3	45.8	42.8	37.8	34.8	25.0	45
25	10.4	44.3	41.3	35.8	32.8	24.3	45
31.25	11.7	42.9	39.9	33.9	30.9	23.6	45
62.5	17.0	38.4	35.4	27.9	24.9	21.5	45
100	22	35.3	32.3	23.8	20.8	20.1	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 5e U/UTP Cable - Cca-s1a, d1, a1

Cca-s1a, d1, a1
DoP: BCC1002

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
This cable is suitable for internal use of Local Area Networks and Analogue & Digital video applications

Category
5e Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-3-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Ripcord
Nylon

4. Sheath
HFFR - Green

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.49 (±0.01)	0.88 (±0.05)	5.00 (±0.2)	28	-20 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	98	5.6	65	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	65.3	62.3	63.8	60.8	20.0	45
4	4.1	56.3	55.3	51.8	48.8	23.0	45
8	5.8	51.8	48.8	45.7	42.7	24.5	45
10	6.5	50.3	47.3	43.8	40.8	25.0	45
16	8.2	47.2	44.2	39.7	36.7	25.0	45
20	9.3	45.8	42.8	37.8	34.8	25.0	45
25	10.4	44.3	41.3	35.8	32.8	24.3	45
31.25	11.7	42.9	39.9	33.9	30.9	23.6	45
62.5	17.0	38.4	35.4	27.9	24.9	21.5	45
100	22	35.3	32.3	23.8	20.8	20.1	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 5e U/UTP Cable - Eca

Eca
DoP: BCC1003

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
This cable is suitable for internal use of Local Area Networks and Analogue & Digital video applications

Category
5e Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-3-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Ripcord
Nylon

4. Sheath
HFFR - Violet

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.49 (±0.01)	0.88 (±0.05)	5.00 (±0.2)	28	-20 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	98	5.6	65	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	65.3	62.3	63.8	60.8	20.0	45
4	4.1	56.3	55.3	51.8	48.8	23.0	45
8	5.8	51.8	48.8	45.7	42.7	24.5	45
10	6.5	50.3	47.3	43.8	40.8	25.0	45
16	8.2	47.2	44.2	39.7	36.7	25.0	45
20	9.3	45.8	42.8	37.8	34.8	25.0	45
25	10.4	44.3	41.3	35.8	32.8	24.3	45
31.25	11.7	42.9	39.9	33.9	30.9	23.6	45
62.5	17.0	38.4	35.4	27.9	24.9	21.5	45
100	22	35.3	32.3	23.8	20.8	20.1	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 5e U/UTP Cable - Eca-PVC Sheathed

Eca
DoP: BCC1008

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
This cable is suitable for internal use of Local Area Networks and Analogue & Digital video applications

Category
5e Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-3-1
EN 50575:2014/A1:2016
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Ripcord
Nylon

4. Sheath
PVC - Grey

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.49 (±0.01)	0.88 (±0.05)	5.00 (±0.2)	28	-20 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	98	5.6	65	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	65.3	62.3	63.8	60.8	20.0	45
4	4.1	56.3	55.3	51.8	48.8	23.0	45
8	5.8	51.8	48.8	45.7	42.7	24.5	45
10	6.5	50.3	47.3	43.8	40.8	25.0	45
16	8.2	47.2	44.2	39.7	36.7	25.0	45
20	9.3	45.8	42.8	37.8	34.8	25.0	45
25	10.4	44.3	41.3	35.8	32.8	24.3	45
31.25	11.7	42.9	39.9	33.9	30.9	23.6	45
62.5	17.0	38.4	35.4	27.9	24.9	21.5	45
100	22	35.3	32.3	23.8	20.8	20.1	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 5e External U/UTP Cable - Fca

Eca
DoP: BCC1009

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
This cable is suitable for internal use of Local Area Networks and Analogue & Digital video applications

Category
5e Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-3-1
EN 50575:2014/A1:2016
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Ripcord
Nylon

4. Sheath
HFFR-Black

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.49 (±0.01)	0.88 (±0.05)	5.00 (±0.2)	28	-20 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	98	5.6	65	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	65.3	62.3	63.8	60.8	20.0	45
4	4.1	56.3	55.3	51.8	48.8	23.0	45
8	5.8	51.8	48.8	45.7	42.7	24.5	45
10	6.5	50.3	47.3	43.8	40.8	25.0	45
16	8.2	47.2	44.2	39.7	36.7	25.0	45
20	9.3	45.8	42.8	37.8	34.8	25.0	45
25	10.4	44.3	41.3	35.8	32.8	24.3	45
31.25	11.7	42.9	39.9	33.9	30.9	23.6	45
62.5	17.0	38.4	35.4	27.9	24.9	21.5	45
100	22	35.3	32.3	23.8	20.8	20.1	45

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BCC Data-Tec™ - Networking Cable - F/UTP

4 Pair Cat 5e F/UTP Cable - Dca-s2, d2, a1

Dca - s2, d2, a1
DoP: BCC1007

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
This cable is suitable for internal use of Local Area Networks and Analogue & Digital video applications

Category
5e Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-2-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Ripcord
Nylon

4. Screen
Al Foil

5. Drain Wire
Tinned Copper

6. Sheath
HFFR –Blue

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.5 (±0.01)	1.04 (±0.05)	6.10 (±0.3)	34	-10 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	93.8	5.6	66	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.1	65.3	62.3	63.8	60.8	20.0	45
4	4.1	56.3	55.3	51.8	48.7	23.0	45
8	5.8	51.8	48.8	45.7	42.7	24.5	45
10	6.5	50.3	47.3	43.8	40.8	25.0	45
16	8.2	47.3	44.3	39.7	36.7	25.0	45
20	9.3	45.8	42.8	37.7	34.7	25.0	45
25	10.4	44.3	41.3	35.8	32.8	24.3	45
31.25	11.7	42.9	39.9	33.9	30.9	23.6	45
62.5	17.0	38.4	35.4	27.8	24.8	21.5	45
100	22	35.3	32.3	23.8	20.8	20.1	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 6 U/UTP Cable - B2ca-s1a, d0, a1

B2ca-s1a, d0, a1
DoP: BCC1004

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
Suitable for internal use of Local Area Networks and Analogue & Digital video applications, supporting Gigabit Ethernet and POE.

Category
6 Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-3-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Cross member
Polyethylene

4. Ripcord
Nylon

5. Sheath
HFFR - Orange

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.55 (±0.01)	1.00 (±0.05)	6.2 (±0.3)	40	-10 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	95	5.6	65	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	74.3	72.3	67.8	64.8	20.0	45
4	3.8	65.3	63.3	55.8	52.8	23.0	45
8	5.3	60.8	58.8	49.7	46.7	24.5	45
10	6.0	59.3	57.3	47.8	44.8	25.0	45
16	7.6	56.2	54.2	43.7	40.7	25.0	45
20	8.5	54.8	52.8	41.8	38.8	25.0	45
25	9.5	53.3	51.3	39.8	36.8	24.3	45
31.25	10.7	51.9	49.9	37.9	34.9	23.6	45
62.5	15.4	47.4	45.4	31.9	28.9	21.5	45
100	19.8	44.3	42.3	27.8	24.8	20.1	45
200	29.0	39.8	37.8	21.8	18.8	18.0	45
250	32.8	38.3	36.3	19.8	16.8	17.3	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 6 U/UTP Slimline 24™ Cable - B2ca-s1a, d0, a1

B2ca-s1a, d0, a1
DoP: BCC1004

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
Suitable for internal use of Local Area Networks and Analogue & Digital video applications, supporting Gigabit Ethernet and POE.

Category
6 Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-3-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Cross member
Polyethylene

4. Ripcord
Nylon

5. Sheath
HFFR - Orange

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.51 (±0.01)	0.93 (±0.05)	5.9 (±0.3)	40	-10 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	95	5.6	65	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	74.3	72.3	67.8	64.8	20.0	45
4	3.8	65.3	63.3	55.8	52.8	23.0	45
8	5.3	60.8	58.8	49.7	46.7	24.5	45
10	6.0	59.3	57.3	47.8	44.8	25.0	45
16	7.6	56.2	54.2	43.7	40.7	25.0	45
20	8.5	54.8	52.8	41.8	38.8	25.0	45
25	9.5	53.3	51.3	39.8	36.8	24.3	45
31.25	10.7	51.9	49.9	37.9	34.9	23.6	45
62.5	15.4	47.4	45.4	31.9	28.9	21.5	45
100	19.8	44.3	42.3	27.8	24.8	20.1	45
200	29.0	39.8	37.8	21.8	18.8	18.0	45
250	32.8	38.3	36.3	19.8	16.8	17.3	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 6 U/UTP Cable - Cca-s1a, d0, a1

Cca-s1a, d0, a1
DoP: BCC1005

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
Suitable for internal use of Local Area Networks and Analogue & Digital video applications, supporting Gigabit Ethernet and POE.

Category
6 Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-6-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Cross member
Polyethylene

4. Ripcord
Nylon

5. Sheath
HFFR - Green

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.55 (±0.01)	1.00 (±0.05)	6.2 (±0.3)	40	-10 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	95	5.6	65	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	74.3	72.3	67.8	64.8	20.0	45
4	3.8	65.3	63.3	55.8	52.8	23.0	45
8	5.3	60.8	58.8	49.7	46.7	24.5	45
10	6.0	59.3	57.3	47.8	44.8	25.0	45
16	7.6	56.2	54.2	43.7	40.7	25.0	45
20	8.5	54.8	52.8	41.8	38.8	25.0	45
25	9.5	53.3	51.3	39.8	36.8	24.3	45
31.25	10.7	51.9	49.9	37.9	34.9	23.6	45
62.5	15.4	47.4	45.4	31.9	28.9	21.5	45
100	19.8	44.3	42.3	27.8	24.8	20.1	45
200	29.0	39.8	37.8	21.8	18.8	18.0	45
250	32.8	38.3	36.3	19.8	16.8	17.3	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 6 U/UTP Slimline 24™ Cable - Cca-s1a, d0, a1

Cca-s1a, d0, a1
DoP: BCC1005

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
Suitable for internal use of Local Area Networks and Analogue & Digital video applications, supporting Gigabit Ethernet and POE.

Category
6 Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-6-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Cross member
Polyethylene

4. Ripcord
Nylon

5. Sheath
HFFR - Green

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.55 (±0.01)	1.00 (±0.05)	6.2 (±0.3)	40	-10 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	95	5.6	65	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	74.3	72.3	67.8	64.8	20.0	45
4	3.8	65.3	63.3	55.8	52.8	23.0	45
8	5.3	60.8	58.8	49.7	46.7	24.5	45
10	6.0	59.3	57.3	47.8	44.8	25.0	45
16	7.6	56.2	54.2	43.7	40.7	25.0	45
20	8.5	54.8	52.8	41.8	38.8	25.0	45
25	9.5	53.3	51.3	39.8	36.8	24.3	45
31.25	10.7	51.9	49.9	37.9	34.9	23.6	45
62.5	15.4	47.4	45.4	31.9	28.9	21.5	45
100	19.8	44.3	42.3	27.8	24.8	20.1	45
200	29.0	39.8	37.8	21.8	18.8	18.0	45
250	32.8	38.3	36.3	19.8	16.8	17.3	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 6 U/UTP Slimline 24™ Cable - Dca-s1a, d0, a1

Dca-s1a, d0, a1
DoP: BCC1006

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
Suitable for internal use of Local Area Networks and Analogue & Digital video applications, supporting Gigabit Ethernet and POE.

Category
6 Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-6-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Cross member
Polyethylene

4. Ripcord
Nylon

5. Sheath
HFFR - Blue

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.51 (±0.01)	0.93 (±0.05)	5.9 (±0.2)	40	-10 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	95	5.6	65	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	74.3	72.3	67.8	64.8	20.0	45
4	3.8	65.3	63.3	55.8	52.8	23.0	45
8	5.3	60.8	58.8	49.7	46.7	24.5	45
10	6.0	59.3	57.3	47.8	44.8	25.0	45
16	7.6	56.2	54.2	43.7	40.7	25.0	45
20	8.5	54.8	52.8	41.8	38.8	25.0	45
25	9.5	53.3	51.3	39.8	36.8	24.3	45
31.25	10.7	51.9	49.9	37.9	34.9	23.6	45
62.5	15.4	47.4	45.4	31.9	28.9	21.5	45
100	19.8	44.3	42.3	27.8	24.8	20.1	45
200	29.0	39.8	37.8	21.8	18.8	18.0	45
250	32.8	38.3	36.3	19.8	16.8	17.3	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 6 U/UTP Cable - Eca

Eca
DoP: BCC1026

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
Suitable for internal use of Local Area Networks and Analogue & Digital video applications, supporting Gigabit Ethernet and POE.

Category
6 Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-6-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Cross member
Polyethylene

4. Ripcord
Nylon

5. Sheath
HFFR - Violet

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.55 (±0.01)	1.0 (±0.05)	6.2 (±0.2)	45	-10 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	95	5.6	65	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	74.3	72.3	67.8	64.8	20.0	45
4	3.8	65.3	63.3	55.8	52.8	23.0	45
8	5.3	60.8	58.8	49.7	46.7	24.5	45
10	6.0	59.3	57.3	47.8	44.8	25.0	45
16	7.6	56.2	54.2	43.7	40.7	25.0	45
20	8.5	54.8	52.8	41.8	38.8	25.0	45
25	9.5	53.3	51.3	39.8	36.8	24.3	45
31.25	10.7	51.9	49.9	37.9	34.9	23.6	45
62.5	15.4	47.4	45.4	31.9	28.9	21.5	45
100	19.8	44.3	42.3	27.8	24.8	20.1	45
200	29.0	39.8	37.8	21.8	18.8	18.0	45
250	32.8	38.3	36.3	19.8	16.8	17.3	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 6 U/UTP Slimline 24™ Cable - Eca

Eca
DoP: BCC1026

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
Suitable for internal use of Local Area Networks and Analogue & Digital video applications, supporting Gigabit Ethernet and POE.

Category
6 Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-6-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Cross member
Polyethylene

4. Ripcord
Nylon

5. Sheath
HFFR - Violet

Standard Put Up Length
100, 305 and 500metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.51 (±0.01)	0.93 (±0.05)	5.9 (±0.2)	40	-10 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	95	5.6	65	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	74.3	72.3	67.8	64.8	20.0	45
4	3.8	65.3	63.3	55.8	52.8	23.0	45
8	5.3	60.8	58.8	49.7	46.7	24.5	45
10	6.0	59.3	57.3	47.8	44.8	25.0	45
16	7.6	56.2	54.2	43.7	40.7	25.0	45
20	8.5	54.8	52.8	41.8	38.8	25.0	45
25	9.5	53.3	51.3	39.8	36.8	24.3	45
31.25	10.7	51.9	49.9	37.9	34.9	23.6	45
62.5	15.4	47.4	45.4	31.9	28.9	21.5	45
100	19.8	44.3	42.3	27.8	24.8	20.1	45
200	29.0	39.8	37.8	21.8	18.8	18.0	45
250	32.8	38.3	36.3	19.8	16.8	17.3	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 6 U/UTP Cable - Eca

Eca
DoP: BCC1027

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
Suitable for internal use of Local Area Networks and Analogue & Digital video applications, supporting Gigabit Ethernet and POE.

Category
6 Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-6-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Cross member
Polyethylene

4. Ripcord
Nylon

5. Sheath
PVC - Grey

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.55 (±0.01)	1.0 (±0.05)	6.2 (±0.2)	45	-10 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	95	5.6	65	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	74.3	72.3	67.8	64.8	20.0	45
4	3.8	65.3	63.3	55.8	52.8	23.0	45
8	5.3	60.8	58.8	49.7	46.7	24.5	45
10	6.0	59.3	57.3	47.8	44.8	25.0	45
16	7.6	56.2	54.2	43.7	40.7	25.0	45
20	8.5	54.8	52.8	41.8	38.8	25.0	45
25	9.5	53.3	51.3	39.8	36.8	24.3	45
31.25	10.7	51.9	49.9	37.9	34.9	23.6	45
62.5	15.4	47.4	45.4	31.9	28.9	21.5	45
100	19.8	44.3	42.3	27.8	24.8	20.1	45
200	29.0	39.8	37.8	21.8	18.8	18.0	45
250	32.8	38.3	36.3	19.8	16.8	17.3	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 6 U/UTP Slimline 24™ Cable - Eca

Eca
DoP: BCC1027

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
Suitable for internal use of Local Area Networks and Analogue & Digital video applications, supporting Gigabit Ethernet and POE.

Category
6 Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-6-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Cross member
Polyethylene

4. Ripcord
Nylon

5. Sheath
PVC - Grey

Standard Put Up Length
100, 305 and 500 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.51 (±0.01)	0.93 (±0.05)	5.9 (±0.2)	40	-10 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	95	5.6	65	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	74.3	72.3	67.8	64.8	20.0	45
4	3.8	65.3	63.3	55.8	52.8	23.0	45
8	5.3	60.8	58.8	49.7	46.7	24.5	45
10	6.0	59.3	57.3	47.8	44.8	25.0	45
16	7.6	56.2	54.2	43.7	40.7	25.0	45
20	8.5	54.8	52.8	41.8	38.8	25.0	45
25	9.5	53.3	51.3	39.8	36.8	24.3	45
31.25	10.7	51.9	49.9	37.9	34.9	23.6	45
62.5	15.4	47.4	45.4	31.9	28.9	21.5	45
100	19.8	44.3	42.3	27.8	24.8	20.1	45
200	29.0	39.8	37.8	21.8	18.8	18.0	45
250	32.8	38.3	36.3	19.8	16.8	17.3	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair External Duct Grade Cat 6 U/UTP Cable - Fca

Fca
DoP: BCC1010

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
Suitable for internal use Suitable for external use (including permanent immersion in ducts) of Local Area Networks and Analogue and Digital video applications, supporting Gigabit Ethernet and POE.

Category
6 Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-3-1 EN 50575:2014/A1:2016
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Cross member
Polyethylene

4. Ripcord
Nylon

5. Sheath
Polyethylene- Black

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.55 (±0.01)	1.0 (±0.05)	6.2 (±0.2)	40	-10 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	95	5.6	65	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	74.3	72.3	67.8	64.8	20.0	45
4	3.8	65.3	63.3	55.8	52.8	23.0	45
8	5.3	60.8	58.8	49.7	46.7	24.5	45
10	6.0	59.3	57.3	47.8	44.8	25.0	45
16	7.6	56.2	54.2	43.7	40.7	25.0	45
20	8.5	54.8	52.8	41.8	38.8	25.0	45
25	9.5	53.3	51.3	39.8	36.8	24.3	45
31.25	10.7	51.9	49.9	37.9	34.9	23.6	45
62.5	15.4	47.4	45.4	31.9	28.9	21.5	45
100	19.8	44.3	42.3	27.8	24.8	20.1	45
200	29.0	39.8	37.8	21.8	18.8	18.0	45
250	32.8	38.3	36.3	19.8	16.8	17.3	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 6A U/FTP Cable - B2ca-s1a, d0, a1

B2ca-s1a, d0, a1
DoP: BCC1011

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
Suitable for internal use of Local Area Networks and Analogue & Digital video applications, supporting Gigabit Ethernet and POE.

Category
6 Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-10-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Individual Pair Screening
Al Foil

4. Cross member
Polyethylene

5. Drain Wire
Tinned Copper

6. Ripcord
Nylon

7. Sheath
HFFR - Orange

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
23 AWG	1.35 (±0.2)	7.8 (±0.5)	50	-10 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz) 100±22 (300MHz to 500MHz)	93.8	5.6	65	5000	2.5

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	75.3	72.3	68.0	65.0	20.0	45
4	3.7	66.3	63.3	56.0	53.0	23.0	45
10	5.9	60.3	57.3	48.0	45.0	25.0	45
16	7.4	57.2	54.2	43.9	40.9	25.0	45
20	8.3	55.8	52.8	42.0	39.0	25.0	45
31.25	10.4	52.9	49.9	38.1	35.1	23.6	45
62.5	14.9	48.4	45.4	32.1	29.1	21.5	45
100	19.0	45.3	42.3	28.0	25.0	20.1	45
200	27.5	40.8	37.8	22.0	19.0	18.0	45
250	31.0	39.3	36.3	20.0	17.0	17.3	45
300	34.2	38.1	35.1	18.5	15.5	17.3	45
500	45.3	34.8	31.8	14.0	11.0	17.3	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 6A U/FTP Cable - Cca-s1a, d0, a1

Cca-s1a, d0, a1
DoP: BCC1012

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
Suitable for internal use of Local Area Networks and Analogue & Digital video applications, supporting Gigabit Ethernet and POE.

Category
6 Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-6-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Individual Pair Screening
Al Foil

4. Cross member
Polyethylene

5. Drain Wire
Tinned Copper

6. Ripcord
Nylon

7. Sheath
HFFR - Green

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
23 AWG	1.35 (±0.2)	7.8 (±0.5)	50	-10 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz) 100±22 (300MHz to 500MHz)	93.8	5.6	65	5000	2.5

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	75.3	72.3	68.0	65.0	20.0	45
4	3.7	66.3	63.3	56.0	53.0	23.0	45
10	5.9	60.3	57.3	48.0	45.0	25.0	45
16	7.4	57.2	54.2	43.9	40.9	25.0	45
20	8.3	55.8	52.8	42.0	39.0	25.0	45
31.25	10.4	52.9	49.9	38.1	35.1	23.6	45
62.5	14.9	48.4	45.4	32.1	29.1	21.5	45
100	19.0	45.3	42.3	28.0	25.0	20.10	45
200	27.5	40.8	37.8	22.0	19.0	18.0	45
250	31.0	39.3	36.3	20.0	17.0	17.3	45
300	34.2	38.1	35.1	18.5	15.5	17.3	45
500	45.3	34.8	31.8	14.0	11.0	17.3	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 6A U/FTP Cable - Dca-s1a, d0, a1

Dca-s1a, d0, a1
DoP: BCC1013

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
Suitable for internal use of Local Area Networks and Analogue & Digital video applications, supporting Gigabit Ethernet and POE.

Category
6 Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-6-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Individual Pair Screening
Al Foil

4. Cross member
Polyethylene

5. Drain Wire
Tinned Copper

6. Ripcord
Nylon

7. Sheath
HFFR - Blue

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
23 AWG	1.35 (±0.2)	7.8 (±0.5)	50	-10 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz) 100±22 (300MHz to 500MHz)	93.8	5.6	65	5000	2.5

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	75.3	72.3	68.0	65.0	20.0	45
4	3.7	66.3	63.3	56.0	53.0	23.0	45
10	5.9	60.3	57.3	48.0	45.0	25.0	45
16	7.4	57.2	54.2	43.9	40.9	25.0	45
20	8.3	55.8	52.8	42.0	39.0	25.0	45
31.25	10.4	52.9	49.9	38.1	35.1	23.6	45
62.5	14.9	48.4	45.4	32.1	29.1	21.5	45
100	19.0	45.3	42.3	28.0	25.0	20.10	45
200	27.5	40.8	37.8	22.0	19.0	18.0	45
250	31.0	39.3	36.3	20.0	17.0	17.3	45
300	34.2	38.1	35.1	18.5	15.5	17.3	45
500	45.3	34.8	31.8	14.0	11.0	17.3	45

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BCC BMS-Tec™ - Paired Cables

PVC, PE or HFFR sheathed cables for BUS and Interface Systems

Application

RS-232, RS-422, RS-485, KNX (EIB or Instabus), LonWorks, ModBus, M-Bus, CAN-bus, BACnet, BMS (Building Management Systems) or general interface systems.

Construction

Wire = conductor without or with insulation. With insulation sometimes also indicated as core.

Conductor: may be solid = one single rod or flexible = twisted bare or tinned copper strands, ranging from 12 to 24AWG.

Insulation: Polyethylene (PE) or Foam PE (FPE) for PVC (Polyvinyl Chloride) or Halogen-Free (HFFR) sheathed cables. And Halogen-Free (HFFR) for HFFR sheathed cables. All insulations are in accordance with BS EN 50290-2, good strippable and coloured. The colours are not interchangeable.

Pair: = two twisted – colour coded – wires.
Individually screened pair (if applicable): one pair wrapped with an Aluminium/Polyester foil under which a drain wire.

Cable core: two or more (individually screened) pairs stranded. Good twisting (lay-length < 30 ~ 40D) is necessary otherwise the cable can hardly be bending and will break after a few bends.

Conductor (AWG)	Configuration (AWG)	Configuration (mm)	DC Resistance (Ohm/km)
24	7 x 32	7 x 0.20	≤ 88
22	7 x 30	7 x 0.25	≤ 57.4
20	7 x 28	7 x 0.32	≤ 32.16
18	7 x 26	7 x 0.40	≤ 22.7
16	19 x 29	19 x 0.28	≤ 15.47
14	19 x 27	19 x 0.36	≤ 9.36
12	19 x 25	19 x 0.45	≤ 5.61

Drain wire: (only in combination with a screen): stranded tinned copper wires. In order to avoid corrosion, it is recommended that drain wires are tinned.

Screen: (if applicable): Helically applied (= as a spiral) Aluminium/ Polyester (Alpet) foil. For the flexibility of a cable a helically applied foil is to be preferred. A longitudinally applied foil act more as a stiff tube = more difficult to bend.

Braiding: (if applicable): tinned copper wires.

Sheath: Grey PVC , black PE or Violet HFFR, all in accordance with BS EN 50290-2.

Cable Configuration		Cable Retardancy	Low Smoke	Halogen-free (non acid, non toxic)	RoHS compliant
Insulation	Sheath				
PE, FPE or PVC	PVC	according to IEC 60332-1	No	No	Yes
PE, FPE or PVC	PE	No	No	Only with (F)PE insulation	Yes
PE, FPE or HFFR	HFFR	according to IEC 60332-3-24	according to IEC 61034-1-2	according to IEC 60754-1 & 2	Yes
18	7 x 26	7 x 0.40			≤ 22.7
16	19 x 29	19 x 0.28			≤ 15.47
14	19 x 27	19 x 0.36			≤ 9.36
12	19 x 25	19 x 0.45			≤ 5.61

Operating temperature range: -25 to +75 °C and Rated Voltage: 300 Vrms

RS-232: Hand shake interface used for low data rates. Computer to printer or to modem or to another device.

RS-422: Balanced digital circuit. Medium speed data exchange. Long line modems and Daisy chain configuration.

RS-485: Balanced digital circuit. Medium speed fieldbus interfaces.

	RS-232	RS-422	RS-485
Differential	no	yes	yes
Max. number of drivers	1	1	1
Max. number of receivers	1	10	32
Modes of operation Network topology	full duplex point-to-point	half duplex multidrop	half duplex multidrop
Max. distance acc. to standard	15 m	1200 m	1200 m
Max. speed at 12 m. Max. speed at 1200 m.	20 kbs 1kbs	10 Mbs 100 kbs	35 Mbs 100 kbs
	Cables used		
Conductor size	mainly 24 AWG	mainly 24 AWG	mainly 24 AWG
Number of conductors	6 to 25	2 pairs or more	1 pair or more
Impedance	not defined	100 Ohm	120 Ohm
BCC main part numbers see	section 1.3	section 1.2	section 1.1

KNX is a standardised (EN 50090, ISO/IEC 14543), OSI-based network communications protocol for intelligent buildings. KNX is the successor to, and convergence of, three previous standards: the European Home Systems Protocol (EHS), BatiBUS, and the European Installation Bus (EIB or Instabus).
BCC main part numbers for KNX cables: C1217 (quad – PVC) – C1218 (quad – HFFR) – C1219 (1 pair – PVC) – C1220 (1 pair – HFFR).

LonWorks is a networking platform specifically created to address the needs of control applications. The platform is built on a protocol created by Echelon Corporation for networking devices over media such as twisted pair, power lines, fibre optics, and RF. It is used for the automation of various functions within buildings such as lighting and HVAC.
BCC main part numbers for LonWorks: C1198 (PVC) - C1203 (PVC) – C1307 (HFFR) – C1271 (HFFR) – C1346 (HFFR) – C1347 (HFFR) – C1348 (HFFR) and C1349 (HFFR).

Modbus is a serial communications protocol published by Modicon in 1979 for use with its programmable logic controllers (PLCs). Simple and robust, it has since become one of the de facto standard communications protocols in the industry.
BCC main part numbers for Modbus: C1197 (PVC) - C1193 (PVC) – C1282 (HFFR) – C1272 (HFFR).

M-Bus (Meter-Bus) is a European standard (EN 13757-2 physical and link layer, EN 13757-3 application layer) for the remote reading of gas or electricity meters. M-Bus is also usable for other types of consumption meters.
BCC main part number for M-bus: C1020 – C1193.

Controller–area network (CAN or CAN-bus) is a vehicle bus standard designed specifically for automotive applications but now also used in other areas such as industrial automation and medical equipment. CAN bus utilise TIA/EIA-485 cables.
BCC main part numbers for CAN-bus: C1080 - C1189 – C1190 – C1191 – C1192 – C1295 – C1296 – C1297 and HFFR cables C1318 – C1319 – C1320 – C1321.

BACnet is a communications protocol for building automation and control networks. It is was designed to allow communication of building automation and control systems for applications such as heating, ventilating, and airconditioning control, lighting control, access control, and fire detection systems and their associated equipment. BACnet over IP can utilize Cat 6.
BCC main part numbers for BACnet: C1228 (PVC) – C1189 (PVC) – C1190 (PVC) - C1318 (HFFR) and C1319 (HFFR).

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BCC BMS-Tec™ - Low Capacitance RS-485 Computer Cables

1 – 2 – 3 or 4 pairs

AWG 22 and 24, Flexible Tinned Copper, Overall Screen, PVC Sheath

BCC Part No: C1080 – C1295 – C1296 – C1297 -C1189 – C1190 – C1191– C1192

BRITISH CABLES COMPANY

Applications
Building Management Systems (BMS), Access Control, Instrumentation

Sector
BCC BMS-TEC™

Standard References
IEC 60332-1
RoHS directives
(BS)EN 50290

Design
1. Conductor
Tinned Copper wire, flexible

2. Insulation
Foam or solid PE
Core 1: White with blue stripe
Core 2: Blue with white stripe
Core 3: White with orange stripe
Core 4: Orange with white stripe
Core 5: White with green stripe
Core 6: Green with white stripe
Core 7: White with brown stripe
Core 8: Brown with white stripe

3. Cabling
Pair 1: core 1 x core 2
Pair 2: core 3 x core 4
Pair 3: core 5 x core 6
Pair 4: core 6 x core 8

4. Screen
Aluminium/Polyester 100% Coverage

5. Braid
Tinned Copper Coverage
(See below table)

6. Outer Screen Drain Wire
Tinned Copper
24AWG (7 x 32)

7. Ripcord

8. Sheath Material
Polyvinyl Chloride (PVC)

Standard Put Up Length
305 or 500 metres

Physical Characteristics

BCC Part Number	Unit	C1080	C1295	C1296	C1297	C1189	C1190	C1191	C1192
No of pairs		1	2	3	4	1	2	3	4
Conductor Gauge	AWG	22	22	22	22	24	24	24	24
Conductor configuration	AWG	7 x 30	7 x 30	7 x 30	7 x 30	7 x 32	7 x 32	7 x 32	7 x 32
Insulation material		FPE	FPE	FPE	FPE	PE	PE	PE	PE
Nom. Radial Thickness Insulation	mm	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Coverage braid	%	65	65	65	65	90	90	90	90
Nom. Radial Thickness Sheath	mm	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Nom. Overall Diameter	mm	6.1	9.1	10.5	11.4	5.9	8.5	9.0	9.9

Electrical Characteristics

BCC Part Number	Unit	C1080	C1295	C1296	C1297	C1189	C1190	C1191	C1192
No of pairs		1	2	3	4	1	2	3	4
Max. DC Resistance Conductor	Ω/km	57.4	57.4	57.4	57.4	88	88	88	88
Max. DC Resistance Screen	Ω/km	20	20	20	20	15	15	15	15
Nominal Impedance	Ω	120	120	120	120	120	120	120	120
Capacitance core to core	pF/m	36	37	38	38	41	41	41	41
Capacitance core to rest	pF/m	69	69	69	69	90	80	75	75
Nom. Attenuation at 1 MHz	dB/100m	1.65	1.65	1.65	1.65	0.6	0.6	0.6	0.6
Max. Recom. Current @ 25°C	Amps	2.7	2.7	2.7	2.7	2.1	2.1	1.54	1.54
Max. Operating Voltage	Vrms	300	300	300	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1080	C1295	C1296	C1297	C1189	C1190	C1191	C1192
No of pairs		1	2	3	4	1	2	3	4
Max. Pulling Tension	N	265	355	400	445	320	385	460	485
Min. Bend Radius (install)	mm	60	90	95	105	60	85	90	100
Nominal Cable Weight	kg/km	63.7	75.6	97	119.1	49	80.5	92.6	114.4
Operating Temperature	°C	-25 / +75							

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BCC BMS-Tec™ - Low Capacitance RS-485 Computer Cables

1 – 2 – 3 or 4 pairs

AWG 24, Flexible Tinned Copper, Overall Screen, HFFR Sheath

BCC Cables Part No: C1318– C1319 – C1320 – C1321

BRITISH CABLES COMPANY

Applications
Building Management Systems (BMS),RS-485 Applications

Sector
BCC BMS-TEC™

Standard References
IEC 60332-3-24
IEC 61034
IEC 60754-1 & 2
RoHS directives
(BS)EN 50290

Design
1. Conductor
Tinned Copper wire, flexible

2. Insulation
Polyethylene (PE)
Core 1: White with blue stripe
Core 2: Blue with white stripe
Core 3: White with orange stripe
Core 4: Orange with white stripe
Core 5: White with green stripe
Core 6: Green with white stripe
Core 7: White with brown stripe
Core 8: Brown with white stripe

3. Cabling
Pair 1: wire 1 x wire 2 twisted
Pair 2: wire 3 x wire 4 twisted
Pair 3: wire 5 x wire 6 twisted
Pair 4: wire 6 x wire 8 twisted
Cable core: N pairs twisted

4. Screen
Aluminium/Polyester 100% Coverage

5. Braid
Tinned Copper Coverage 90%

6. Outer Screen Drain Wire
Tinned Copper 24AWG (7 x 32)

7. Ripcord

8. Sheath Material
Halogen-Free, Flame Retardant (HFFR) Standard Colour: Violet or Grey

Standard Put Up Length
305 or 500 metres

Physical Characteristics

BCC Part Number	Unit	C1318	C1319	C1320	C1321
No of pairs		1	2	3	4
Conductor Gauge	AWG	24	24	24	24
Conductor configuration	AWG	7 x 32	7 x 32	7 x 32	7 x 32
Nom. Radial Thickness Insulation	mm	0.6	0.6	0.6	0.6
Coverage braid	%	90	90	90	90
Nom. Radial Thickness Sheath	mm	0.8	0.8	0.8	0.8
Nom. Overall Diameter	mm	5.9	8.5	9.0	9.9

Electrical Characteristics

BCC Part Number	Unit	C1318	C1319	C1320	C1321
Nom. DC Resistance Conductor	Ω/km	82.7	82.7	82.7	82.7
Nom. DC Resistance Screen	Ω/km	11.7	15	16	7.3
Nominal Impedance	Ω	120	120	120	120
Capacitance core to core	pF/m	41	42	42	42
Capacitance core to rest	pF/m	82	81	80	80
Nom. Attenuation at 1 MHz	dB/100m	0.6	0.6	0.6	0.6
Nom. Velocity of Propagation	%	66	66	66	66
Max. Recom. Current @ 25°C	Amps	2.1	2.1	1.54	1.54
Max. Operating Voltage	Vrms	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1318	C1319	C1320	C1321
Fire Retardancy		IEC 60332-3C			
Low Smoke		IEC 61034			
Max. Pulling Tension	N	320	385	460	485
Min. Bend Radius (install)	mm	60	85	90	100
Nominal Cable Weight	kg/km	49	80.5	92.6	114.4
Operating Temperature	°C	-25 / +75	-25 / +75	-25 / +75	-25 / +75

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BCC BMS-Tec™ - Low Capacitance RS-485 Computer Cables

1 – 2 – 3 or 4 pairs

AWG 22, Flexible Tinned Copper, Overall Screen, HFFR Sheath

BCC Part No: C1401 – C1402– C1403 – C1404

BRITISH CABLES COMPANY

Applications
Building Management Systems (BMS),
Access Control, Instrumentation

Sector
BCC BMS-TEC™

Standard References
IEC 60332-3-24
IEC 61034
RoHS directives
(BS)EN 50290-2

Design
1. Conductor
Tinned Copper wire, flexible

2. Insulation
Foam PE
Core 1: White with blue stripe
Core 2: Blue with white stripe
Core 3: White with orange stripe
Core 4: Orange with white stripe
Core 5: White with green stripe
Core 6: Green with white stripe
Core 7: White with brown stripe
Core 8: Brown with white stripe

3. Cabling
Pair 1: core 1 x core 2
Pair 2: core 3 x core 4
Pair 3: core 5 x core 6
Pair 4: core 7 x core 8

4. Screen
Aluminium/Polyester 100% Coverage

5. Braid
Tinned Copper Coverage 65%

6. Outer Screen Drain Wire
Tinned Copper 24AWG (7 x 32)

7. Ripcord

8. Sheath Material
Halogen-Free (HFFR)
Colour: Violet

Standard Put Up Length
305 or 500 metres

Physical Characteristics

BCC Part Number	Unit	C1401	C1402	C1403	C1404
No of pairs		1	2	3	4
Conductor Gauge	AWG	22	22	22	22
Conductor configuration	AWG	7 x 30	7 x 30	7 x 30	7 x 30
Insulation material		FPE	FPE	FPE	FPE
Nom. Radial Thickness Insulation	mm	0.6	0.6	0.6	0.6
Coverage braid	%	65	65	65	65
Nom. Radial Thickness Sheath	mm	0.8	0.8	0.8	0.8
Nom. Overall Diameter	mm	6.1	9.1	10.5	11.4

Electrical Characteristics

BCC Part Number	Unit	C1401	C1402	C1403	C1404
No of pairs		1	2	3	4
Max. DC Resistance Conductor	Ω/km	57.4	57.4	57.4	57.4
Max. DC Resistance Screen	Ω/km	20	20	20	20
Nominal Impedance	Ω	120	120	120	120
Capacitance core to core	pF/m	36	37	38	38
Capacitance core to rest	pF/m	69	69	69	69
Nom. Attenuation at 1 MHz	dB/100m	1.65	1.65	1.65	1.65
Max. Recom. Current @ 25°C	Amps	2.7	2.7	2.7	2.7
Max. Operating Voltage	Vrms	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1401	C1402	C1403	C1404
No of pairs		1	2	3	4
Max. Pulling Tension	N	265	355	400	445
Min. Bend Radius (install)	mm	60	90	95	105
Nominal Cable Weight	kg/km	46.7	76.7	97	119.1
Operating Temperature	°C			-25 / +75	

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BCC BMS-Tec™ - Low Capacitance RS-485 Computer Cables

2 – 3 – 4 or 6 pairs

AWG 24, Flexible Tinned Copper, Individually Screened, PVC Sheath

BCC Part No: C1382 – C1383 – C1384 – C1386

BRITISH CABLES COMPANY

Applications
Building Management Systems (BMS), Access Control, Instrumentation

Sector
BCC BMS-TEC™

Standard References
IEC 60332-1
RoHS directives
(BS)EN 50290

Design
1. Conductor
Tinned Copper wires
24 AWG (7 x 32)
N twisted pairs

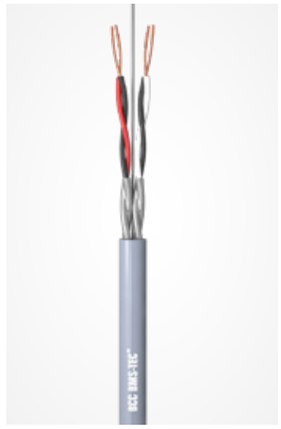
2. Insulation
Foam PE
Pair 1: Black/Red
Pair 2: Black/White
Pair 3: Black/Green
Pair 4: Black/Blue
Pair 5: Black/Yellow
Pair 6: Black/Brown

3. Drain Wire
Tinned Copper 24AWG (7 x 32)

4. Screen
Each pair individually screened with an Aluminium/Polyester foil
100% Coverage

5. Sheath Material
Polyvinyl Chloride (PVC)
Standard colour: Grey

Standard Put Up Length
305 metres



Physical Characteristics

BCC Part Number	Unit	C1382	C1383	C1384	C1386
Number of pairs		2	3	4	6
Conductor size	AWG	24	24	24	24
Nom. Diameter Conductor	mm	0.6	0.6	0.6	0.6
Nom. Radial Thickness Insulation	mm	0.47	0.47	0.47	0.47
Nom. Radial Thickness Sheath	mm	0.6	0.6	0.6	0.6
Nom. Overall Diameter	mm	6.7	8.4	9.2	10.6

Electrical Characteristics

BCC Part Number	Unit	C1382	C1383	C1384	C1386
No of pairs x 22AWG		2	3	4	6
Nominal Impedance	Ω	100	100	100	100
Max. DC Resistance Conductor	Ω/km	82.7	82.7	82.7	82.7
Max. DC Resistance Screen	Ω/km	78.5	78.5	78.5	78.5
Capacitance conductor to conductor	pF/m	41	41	41	41
Capacitance cond. To other cond.+screen	pF/m	76	76	76	76
Max. Recommended Current at 25°C	0.6	2.5	2.5	2.5	2.5
Max. Operating Voltage	Vrms	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1382	C1383	C1384	C1386
No of pairs x conductor AWG size		2	3	4	6
Operating Temperature	°C	-25 / +75	-25 / +75	-25 / +75	-25 / +75
Max. Recommended Pulling Tension	N	80	110	140	200
Min. Bend Radius (install)	mm	67	84	92	106
Nominal Weight	kg/km	41.8	59.4	75.5	104.8

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BCC BMS-Tec™ - Cables for EIA RS-232 Applications

1 – 2 – 3 – 4 – 5 - 6 – 7 or 8 pairs

24AWG (7 x 32), Flexible Tinned Copper, Overall Screen, PVC Sheath

BCC Part No: C1181 – C1182 – C1183 – C1184 – C1185 – C1186 – C1187 – C1188

BRITISH CABLES COMPANY

Applications
Building Management Systems (BMS),
Access Control, Instrumentation

Sector
BCC BMS-TEC™

Standard References
IEC 60332-1
RoHS directives
(BS)EN 50290

Design
1. Conductor
N x 2 x Tinned Copper wire,
24AWG flexible (7x32)

2. Insulation
Polyvinyl Chloride (PVC)
Pair 1: Black & Red
Pair 2: Black & White
Pair 3: Black & Green
Pair 4: Black & Blue
Pair 5: Black & Yellow
Pair 6: Black & Brown
Pair 7: Black & Orange
Pair 8: Red & White

3. Drain Wire
24 AWG (7 x 32) Tinned Copper

4. Screen
Aluminium/Polyester
100% Coverage

5. Sheath Material
Polyvinyl Chloride (PVC)

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1181	C1182	C1183	C1184	C1185	C1186	C1187	C1188
Number of pairs		1	2	3	4	5	6	7	8
Nom. Diameter Conductor	mm	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Nom. Radial Thickness Insulation	mm	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Nom. Radial Thickness Sheath	mm	0.8	0.8	0.8	0.6	0.6	0.4	0.4	0.4
Nom. Overall Diameter	mm	4.0	5.6	5.9	6.7	7.3	7.4	7.5	8.3

Electrical Characteristics

BCC Part Number	Unit	C1181	C1182	C1183	C1184	C1185	C1186	C1187	C1188
Number of pairs		1	2	3	4	5	6	7	8
Max. DC Resistance Conductor	Ω/km	88	88	88	88	88	88	88	88
Max. DC Resistance Screen	Ω/km	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4
Nominal Impedance	Ω	75	75	75	75	75	75	75	75
Capacitance core to core	pF/m	135	76	76	80	80	80	80	80
Capacitance core to other cores.+screen	pF/m	275	122	122	130	130	130	130	130
Nominal Inductance	µH/m	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.5
Nominal Velocity of Propagation	%	60	60	60	60	60	60	60	60
Max. Recommen. Current @ 25°C	Amps	1.76	1.76	1.76	1.5	1.5	1.1	1.1	1.1
Max. Operating Voltage	Vrms	300	300	300	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1181	C1182	C1183	C1184	C1185	C1186	C1187	C1188
Number of pairs		1	2	3	4	5	6	7	8
Max. Recommend. Pulling Tension	N	45	90	135	180	225	270	315	360
Min. Bend Radius (install)	mm	40	56	59	67	73	74	75	83
Nominal Cable Weight	kg/km	18	28	39	48	57	65	73	85
Operating Temperature	°C					-25 / +75			

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BCC BMS-Tec™ - Cables for EIA RS-232 Applications

1 – 2 – 3 – 4 – 5 - 6 – 7 or 8 pairs

24AWG (7 x 32), Flexible Tinned Copper, Overall Screen, HFFR Sheath

BCC Part No: C1441 – C1442 – C1443– C1444 – C1445 – C1446 – C1447 – C1448

BRITISH CABLES COMPANY

Applications
Building Management Systems (BMS), Access Control, Instrumentation

Sector
BCC BMS-TEC™

Standard References
IEC 60332-1
IEC 60332-3-24
IEC 61034
RoHS directives (BS)EN 50290

Design
1. Conductor
N x 2 x Tinned Copper wire,
24AWG flexible (7x32)

2. Insulation
Low Smoke Zero Halogen(HFFR)
Pair 1: Black & Red
Pair 2: Black & White
Pair 3: Black & Green
Pair 4: Black & Blue
Pair 5: Black & Yellow
Pair 6: Black & Brown
Pair 7: Black & Orange
Pair 8: Red & White

3. Drain Wire
24 AWG (7 x 32) Tinned Copper

4. Screen
Aluminium/Polyester
100% Coverage

5. Sheath Material
Low Smoke Zero Halogen (HFFR)
Colour: Violet

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1441	C1442	C1443	C1444	C1445	C1446	C1447	C1448
Number of pairs		1	2	3	4	5	6	7	8
Nom. Diameter Conductor	mm	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Nom. Radial Thickness Insulation	mm	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Nom. Radial Thickness Sheath	mm	0.8	0.8	0.8	0.6	0.6	0.4	0.4	0.4
Nom. Overall Diameter	mm	4.0	5.6	5.9	6.7	7.3	7.4	7.5	8.3

Electrical Characteristics

BCC Part Number	Unit	C1441	C1442	C1443	C1444	C1445	C1446	C1447	C1448
Number of pairs		1	2	3	4	5	6	7	8
Max. DC Resistance Conductor	Ω/km	88	88	88	88	88	88	88	88
Max. DC Resistance Screen	Ω/km	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4
Nominal Impedance	Ω	75	75	75	75	75	75	75	75
Capacitance core to core	pF/m	95	55	55	60	60	60	60	60
Capacitance core to other cores.+screen	pF/m	275	122	122	130	130	130	130	130
Nominal Inductance	µH/m	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.5
Nominal Velocity of Propagation	%	60	60	60	60	60	60	60	60
Max. Recommen. Current @ 25°C	Amps	1.76	1.76	1.76	1.5	1.5	1.1	1.1	1.1
Max. Operating Voltage	Vrms	300	300	300	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1441	C1442	C1443	C1444	C1445	C1446	C1447	C1448
Number of pairs		1	2	3	4	5	6	7	8
Max. Recommend. Pulling Tension	N	45	90	135	180	225	270	315	360
Min. Bend Radius (install)	mm	40	56	59	67	73	74	75	83
Nominal Cable Weight	kg/km	18	28	39	48	57	65	73	85
Operating Temperature	°C					-25 / +75			

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BCC BMS-Tec™ - Cables for EIA RS-232 Applications

1 – 2 – 3 – 4 – 5 - 6 – 7 or 8 p airs

24AWG (7 x 32), Flexible Tinned Copper, Overall Screen, PE Sheath

BCC Part No: C1451 – C1452 – C1453 – C1454 – C1455 – C1456 – C1457 – C1458

BRITISH CABLES COMPANY

Applications
Building Management Systems (BMS),
Access Control, Instrumentation

Sector
BCC BMS-TEC™

Standard References
ANSI/TIA/EIA-232-F
RoHS directives (BS)EN 50290

Design
1. Conductor
N x 2 x Tinned Copper wire, 24AWG flexible (7x32)

2. Insulation
Polyvinyl Chloride (PVC)
Pair 1: Black & Red
Pair 2: Black & White
Pair 3: Black & Green
Pair 4: Black & Blue
Pair 5: Black & Yellow
Pair 6: Black & Brown
Pair 7: Black & Orange
Pair 8: Red & White

3. Drain Wire
24 AWG (7 x 32) Tinned Copper

4. Screen
Aluminium/Polyester
100% Coverage

5. Sheath Material
Polyethylene (PE)

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1451	C1452	C1453	C1454	C1455	C1456	C1457	C1458
Number of pairs		1	2	3	4	5	6	7	8
Nom. Diameter Conductor	mm	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Nom. Radial Thickness Insulation	mm	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Nom. Radial Thickness Sheath	mm	0.8	0.8	0.8	0.6	0.6	0.4	0.4	0.4
Nom. Overall Diameter	mm	4.0	5.6	5.9	6.7	7.3	7.4	7.5	8.3

Electrical Characteristics

BCC Part Number	Unit	C1451	C1452	C1453	C1454	C1455	C1456	C1457	C1458
Number of pairs		1	2	3	4	5	6	7	8
Max. DC Resistance Conductor	Ω/km	88	88	88	88	88	88	88	88
Max. DC Resistance Screen	Ω/km	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4
Nominal Impedance	Ω	75	75	75	75	75	75	75	75
Capacitance core to core	pF/m	135	76	76	80	80	80	80	80
Capacitance core to other cores.+screen	pF/m	275	122	122	130	130	130	130	130
Nominal Inductance	µH/m	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.5
Nominal Velocity of Propagation	%	60	60	60	60	60	60	60	60
Max. Recommen. Current @ 25°C	Amps	1.76	1.76	1.76	1.5	1.5	1.1	1.1	1.1
Max. Operating Voltage	Vrms	300	300	300	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1451	C1452	C1453	C1454	C1455	C1456	C1457	C1458
Number of pairs		1	2	3	4	5	6	7	8
Max. Recommend. Pulling Tension	N	45	90	135	180	225	270	315	360
Min. Bend Radius (install)	mm	40	56	59	67	73	74	75	83
Nominal Cable Weight	kg/km	18	24.5	31	39	47	55	59	67
Operating Temperature	°C					-25 / +75			

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BCC BMS-Tec™ - Cables for KNX (was EIB or Instabus) networks

1 or 2 pairs

0.8 mm, Flexible Tinned Copper, Overall Shield, HFFR Jacket

BRITISH CABLES COMPANY

Applications
Shielded cable
suitable for Konnex building management networks

Sector
BCC BMS-TEC™

Standard References
EN 50090
(BS)EN 50290-2
RoHS directives

Design
1. Conductor
Bare Copper wire,

2. Insulation
Polyethylene (PE)

3. Lay Up
4 cores stranded to a quad (4 x1) or
2 cores twisted to a pair

4. Wrapping
PET foil

5. Drain Wire
Tinned Copper Wire, 0.4mm

6. Shield
Aluminium/Polyester
100% Coverage

7. Jacket Material
Polyvinyl Chloride (PVC)
or Halogen Free,
Flame Retardant (HFFR)
Green RAL 6018

Standard Put Up Length
305 or 500 metres

Cable Characteristics

BCC P/N	Lay Up	Diameter Conductor (mm)	Radial thickness Insulation (mm)	Diameter over Insulation (mm)	Radial thickness Jacket (mm)	Overall Diameter (mm)	Jacket Material
C1217	Quad	0.8	0.3	1.45	1.1	6.1	PVC
C1218	Quad	0.8	0.3	1.45	1.1	6.1	HFFR
C1219	1 pair	0.8	0.3	1.45	1.1	5.5	PVC
C1220	1 pair	0.8	0.3	1.45	1.1	5.5	HFFR

Conductor Resistance (Ohm/km)	Capacitance (pF/m)	Insulation Resistance (MΩ*km)	Impedance (Ohm)	Velocity Ratio (%)	Recommended Current at 25°C (Amps)	Operating Voltage (Vrms)
< 37	70	1000	60	66	≤ 5	300

BCC P/N	Lay Up	Jacket Material	Flame Retardancy	Max. Pulling Tension (Newton)	Min. Installed Bend Radius (mm)	Operating Temperature Range
C1217	Quad	PVC	IEC 60332-1	50	61	-20°C to +75°C
C1218	Quad	HFFR	IEC 60332-3-24	50	61	-20°C to +75°C
C1219	1 pairs	PVC	IEC 60332-1	25	55	-20°C to +75°C
C1220	1 pairs	HFFR	IEC 60332-3-24	25	55	-20°C to +75°C

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BCC BMS-Tec™ - LonWorks Cables

1 or 2 Pairs

22AWG, Solid Bare Copper, Individually Screened or No Screen, HFFR Sheath

BCC Part No: C1346 – C1347 – C1348 – C1349

BRITISH CABLES COMPANY

Applications
LonWorks
Interface Bus systems

Sector
BCC BMS-TEC™

Standard References
IEC 60332-1
IEC 60332-3-24 RoHS directives
(BS)EN 50290
IEC 61034
IEC 60754-1 & 2

Design
1. Conductor
Solid Bare Copper
22 AWG (0.64 mm)

2. Insulation
Solid PE or
Foam PE

3. Lay Up
Two wires twisted to a pair

4. Drain Wire (if applicable)
24 AWG (0.5 mm)
Tinned Copper

5. Screen (if applicable)
Each pair individually screened with an Aluminium/Polyester foil
100% Coverage

6. Cable Core
one pair or two pairs stranded

7. Sheath Material
Halogen-Free (HFFR))
Standard colour: Violet

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1346	C1347	C1348	C1349
Number of pairs		1	2	1	2
Nom. Diameter Conductor	mm	0.64	0.64	0.64	0.64
Insulation material		PE	PE	Foam PE	Foam PE
Nom. Radial Thickness Insulation	mm	0.24	0.24	0.45	0.45
unscreened pair(s)		1	2		
Individually screened pair(s)				1	2
Nom. Radial Thickness Sheath	mm	0.6	0.6	0.6	0.6
Nom. Overall Diameter	mm	3.5	5.2	4.6	7.6

Electrical Characteristics

BCC Part Number	Unit	C1346	C1347	C1348	C1349
No of pairs x 22AWG		1	2	1	2
Nominal Impedance	Ω	100	100	100	100
Max. DC Resistance Conductor	Ω/km	61	61	61	61
Max. DC Resistance Screen	Ω/km			78.5	78.5
Capacitance conductor to conductor	pF/m	46	46	46	46
Capacitance cond. To other cond.+screen	pF/m	76	76	90	80
Max. Recommended Current at 25°C	0.6	2.5	2.5	2.5	2.5
Max. Operating Voltage	Vrms	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1346	C1347	C1348	C1349
No of pairs x conductor AWG size		1	2	1	2
Operating Temperature	°C	-25 / +75	-25 / +75	-25 / +75	-25 / +75
Max. Recommended Pulling Tension	N	50	100	50	100
Min. Bend Radius (install)	mm	70	104	92	152
Weight	kg/km	17.1	27.7	24.2	56.1

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BCC BMS-Tec™ - GP BUS Cables

2 – 3 – 4 – 5 or 6 Pairs

22AWG (7x30), Flexible Tinned Copper, Individually Screened, FR-PVC Sheath

BCC Part No: C1196 – C1197– C1298 – C1299 – C1214

BRITISH CABLES COMPANY

Applications
Individual screened paired cable suitable for Audio, Control and Instrumentation

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-1
RoHS directives

Design
1. Conductor
Tinned Copper wires
22 AWG (7 x 30)
N twisted pairs

2. Insulation
Polyolefin
Pair 1: Black/Red
Pair 2: Black/White
Pair 3: Black/Green
Pair 4: Black/Blue
Pair 5: Black/Yellow
Pair 6: Black/Brown

3. Drain Wire
24 AWG (7 x 32) Tinned Copper

4. Screen
Each pair individually screened with an Aluminium/Polyester foil
100% Coverage

5. Sheath Material
Flame-Retardant
Polyvinyl Chloride (PVC)
Standard colour: Grey

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1196	C1197	C1298	C1299	C1214
Number of pairs		2	3	4	5	6
Conductor size	AWG	22	22	22	22	22
Nom. Diameter Conductor	mm	0.75	0.75	0.75	0.75	0.75
Nom. Radial Thickness Insulation	mm	0.2	0.2	0.2	0.2	0.2
Nom. Radial Thickness Sheath	mm	0.6	0.6	0.6	0.6	0.6
Nom. Overall Diameter	mm	6.0	6.5	7.0	7.7	8.9

Electrical Characteristics

BCC Part Number	Unit	C1196	C1197	C1298	C1299	C1214
No of pairs x 22AWG		2	3	4	5	6
Max. DC Resistance Conductor	Ω/km	57.4	57.4	57.4	57.4	57.4
Capacitance conductor to conductor	pF/m	90	98	98	99	99
Capacitance cond. To other cond.+screen	pF/m	180	180	180	180	180
Nominal Impedance	Ω	50	50	50	50	50
Max. Recommended Current at 25°C	Amps	2.3	2.3	2	2	2
Max. Operating Voltage	Vrms	300	300			300

Miscellaneous

BCC Part Number	Unit	C1196	C1197	C1298	C1299	C1214
No of pairs x conductor AWG size		2	3	4	5	6
Operating Temperature	°C	-25 / +75	-25 / +75	-25 / +75	-25 / +75	-25 / +75
Max. Recommended Pulling Tension	N	185	240	320	400	320
Min. Bend Radius (install)	mm	60	65	70	77	89
Nominal Cable Weight	kg/km	49.9	64	62	74	104

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BCC BMS-Tec™ - GP BUS Cables

2 – 3 or 6 pairs x 22AWG, Individually Screened
Halogen-Free, Flame-Retardant (HFFR) sheath
BCC Part No: C1281 – C1282 – C1314

BRITISH CABLES COMPANY

Applications
Individual screened paired cable suitable for Audio, Control and Instrumentation

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-3 - 24 (was 3C)
IEC 61034
IEC 60754-1 & 2
RoHS directives

Design
1. Conductor
Tinned Copper wires
22 AWG (7 x 30)
N twisted pairs

2. Insulation
Polyolefin
Pair 1: Black/Red
Pair 2: Black/White
Pair 3: Black/Green
Pair 4: Black/Blue
Pair 5: Black/Yellow
Pair 6: Black/Brown

3. Drain Wire
24 AWG (7 x 32) Tinned Copper

4. Screen
Each pair individually screened with an Aluminium/Polyester foil
100% Coverage

5. Sheath Material
HFFR (Halogen Free,Flame Retardant)
Standard colour: Violet

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1281	C1282	C1314
Number of pairs		2	3	6
Conductor size	AWG	22	22	22
Nom. Diameter Conductor	mm	0.75	0.75	0.75
Nom. Radial Thickness Insulation	mm	0.25	0.25	0.25
Nom. Radial Thickness Jacket	mm	0.8	0.8	0.8
Nom. Overall Diameter	mm	6.5	7.5	9.5

Electrical Characteristics

BCC Part Number	Unit	C1281	C1282	C1314
No of pairs x 22AWG		2	3	6
Max. DC Resistance Conductor	Ω/km	57.4	57.4	57.4
Capacitance conductor to conductor	pF/m	150	155	155
Capacitance cond. to other cond.+screen	pF/m	285	295	295
Max. Recommended Current at 25°C	Amps	2.3	2	2
Max. Operating Voltage	Vrms	300	300	300

Miscellaneous

BCC Part Number	Unit	C1281	C1282	C1314
No of pairs x conductor AWG size		2	3	6
Operating Temperature	°C	-25 / +75	-25 / +75	-25 / +75
Max. Recommended Pulling Tension	N	185	240	320
Min. Bend Radius (install)	mm	65	75	95
Weight	kg/km	50.8	67.4	115.6

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BCC BMS-Tec™ - GP BUS Cables

1 pair x 14-16-18-20 or 22 AWG
Overall Screen, PVC Sheath
BCC Part No: C1313 - C1224 – C1213 – C1193 - C1195 – C1199

BRITISH CABLES COMPANY

Applications
Screened one pair cable suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-1
RoHS directives

Design
1. Conductor
Tinned Copper wires
One twisted pair

2. Insulation
Polyolefin
Core 1: Black
Core 2: Clear

3. Drain Wire
24 AWG (7 x 32) Tinned Copper

4. Screen
Aluminium/Polyester
100% Coverage

5. Sheath Material
Flame-Retardant
Polyvinyl Chloride (PVC)
Standard colour: Grey

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1313	C1224	C1213	C1193	C1195	C1199
Number of pairs		1	1	1	1	1	1
Conductor size	AWG	12	14	16	18	20	22
Conductor stranding	mm	19x0.471	19x0.36	19x0.287	16x0.254	7x0.30	7x0.25
Nom. Radial Thickness Insulation	mm	0.8	0.8	0.8	0.5	0.5	0.4
Nom. Radial Thickness Sheath	mm	0.9	0.9	0.8	0.7	0.6	0.6
Nom. Overall Diameter	mm	10.2	9.0	7.9	5.6	5.0	4.4

Electrical Characteristics

BCC Part Number	Unit	C1313	C1224	C1213	C1193	C1195	C1199
No of pairs x conductor AWG size		1PR x 12	1PR x 14	1PR x 16	1PR x 18	1PR x 20	1PR x 22
Max. DC Resistance Conductor	Ω/km	6.2	9.5	14.7	22.7	36.75	57.4
Max. DC Resistance Screen	Ω/km	78.5	78.5	78.5	78.5	78.5	78.5
Capacitance conductor to conductor	pF/m	77	76	60	75	75	75
Capacitance cond. To other cond.+screen	pF/m	160	154	120	134	120	108
Nominal Inductance	µH/m	0.6	0.6	0.6	0.6	0.6	0.6
Max. Recommended Current at 25°C	Amps	13	9.5	7.1	5.2	3.9	2.9
Max. Operating Voltage	Vrms	600	600	600	300	300	300

Miscellaneous

BCC Part Number	Unit	C1313	C1224	C1213	C1193	C1195	C1199
Operating Temperature	°C	-25 / +75	-25 / +75	-25 / +75	-25 / +75	-25 / +75	-25 / +75
Max. Recommended Pulling Tension	N	665	420	270	200	110	80
Min. Bend Radius (install)	mm	102	90	79	56	50	44
Nominal Cable Weight	kg/km	124.7	105	76	43	36.5	25

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BCC BMS-Tec™ - GP BUS Cables

1 pair x 12-14-16-18-20 or 22 AWG

High Conductivity – Unshielded Speaker Cable – PVC Sheath

BCC Part No: C1302 - C1222 – C1198 - C1203 – C1300 – C1301

BRITISH CABLES COMPANY

Applications
One pair cable
Suitable for Audio, Control
And Instrumentation

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-1
RoHS directives

Design
1. Conductor
Tinned Copper wires
One twisted pair

2. Insulation
Polyvinyl Chloride (PVC)
Core 1: Black
Core 2: White

3. Sheath Material
Flame Retardant Polyvinyl
Chloride(PVC)
Standard colour: Grey

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1302	C1222	C1198	C1203	C1300	C1301
Number of pairs		1	1	1	1	1	1
Conductor size	12	14	16	18	20	22	22
Conductor stranding	mm	19x0.47	19x0.36	19x0.287	16x0.254	7x0.30	7x0.25
Nom. Radial Thickness Insulation	mm	0.8	0.8	0.6	0.3	0.3	0.3
Nom. Radial Thickness Sheath	mm	0.9	0.9	0.8	0.7	0.6	0.6
Nom. Overall Diameter	mm	9.8	8.6	6.9	5.1	4.3	4.0

Electrical Characteristics

BCC Part Number	Unit	C1302	C1222	C1198	C1203	C1300	C1301
AWG size conductor	12	14	16	18	20	22	57.4
Max. DC Resistance Conductor	Ω/km	6.2	9.5	14.7	21.7	35.75	52.7
Capacitance conductor to conductor	pF/m	115	108	50	85	80	70
Nominal Inductance	µH/m	0.6	0.6	0.6	0.6	0.6	0.6
Max. Recommended Current at 25°C	Amps	13	9.5	7.1	5.2	3.9	2.9
Max. Operating Voltage	Vrms	600	600	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1302	C1222	C1198	C1203	C1300	C1301
AWG size conductor	12	14	16	18	20	22	-25 / +75
Operating Temperature	°C				-25 / +75		
Max. Recommended Pulling Tension	N	665	420	270	200	110	80
Min. Bend Radius (install)	mm	98	88	70	51	43	40
Nominal Cable Weight	kg/km	115	91.8	63.3	38.6	23	19.5

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BCC BMS-Tec™ - GP BUS Cables

1 pair x 12-14-16-18-20 or 22 AWG

Overall Screen, HFFR Sheath

BCC Part No: C1303-C1305-C1270-C1272-C1308-C1310

BRITISH CABLES COMPANY

Applications
Screened one pair cable
suitable for Audio,Control,
Instrumentation and Building
Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-3C
RoHS directives

Design
1. Conductor
Tinned Copper wires
One twisted pair

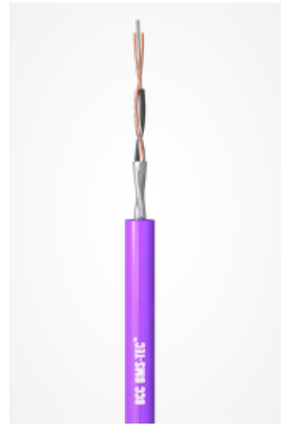
2. Insulation
Polyolefin
Core 1: Black
Core 2: Clear

3. Drain Wire
24 AWG (7 x 32) Tinned Copper

4. Screen
Aluminium/Polyester
100% Coverage

5. Sheath Material
Halogen-Free
Flame-Retardant
(HFFR)
Standard colour: Violet

Standard Put Up Length
305 metres



Physical Characteristics

BCC Part Number	Unit	C1303	C1305	C1270	C1272	C1308	C1310
Number of pairs		1	1	1	1	1	1
Conductor size	AWG	12	14	16	18	20	22
Conductor stranding	mm	19x0.48	19x0.38	19x0.29	7x0.40	7x0.325	7x0.25
Nom. Radial Thickness Insulation	mm	0.8	0.8	0.8	0.5	0.4	0.4
Nom. Radial Thickness Sheath	mm	0.9	0.9	0.8	0.8	0.8	0.6
Nom. Overall Diameter	mm	9.9	8.8	7.8	6.0	5.3	4.5

Electrical Characteristics

BCC Part Number	Unit	C1303	C1305	C1270	C1272	C1308	C1310
No of pairs x conductor AWG size		1PR x 12	1PR x 14	1PR x 16	1PR x 18	1PR x 20	1PR x 22
Max. DC Resistance Conductor	Ω/km	5.61	9.36	15.47	22.7	35.75	57.4
Max. DC Resistance Screen	Ω/km	78.5	78.5	78.5	78.5	78.5	78.5
Capacitance conductor to conductor	pF/m	110	110	110	120	120	140
Capacitance cond. to other cond.+scrn	pF/m	260	254	244	225	210	200
Nominal Inductance µH/m	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Max. Recommended Current at 25°C	Amps	13	9.5	7.1	5.2	3.9	2.9
Max. Operating Voltage	Vrms	600	600	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1303	C1305	C1270	C1272	C1308	C1310
No of pairs x conductor AWG size		1PR x 12	1PR x 14	1PR x 16	1PR x 18	1PR x 20	1PR x 22
Operating Temperature	°C				-25 / +75		
Max. Recommended Pulling Tension	N	665	420	270	200	110	80
Min. Bend Radius (install)	mm	99	88	78	60	53	45
Cable weight	kg/km	132.6	97.9	74.3	48.4	37.2	27.1

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BCC BMS-Tec™ - GP BUS Cables

1 pair x 12-14-16-18-20 or 22 AWG

No Screen, HFFR Sheath

BCC Part No: C1304-C1306-C1307-C1271-C1309-C1311

BRITISH CABLES COMPANY

Applications
One pair cable suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-3C
RoHS directives

Design
1. Conductor
Tinned Copper wires
One twisted pair

2. Insulation
Polyolefin
Core 1: Black
Core 2: Clear

3. Sheath Material
Halogen-Free
Flame-Retardant
(HFFR)
Standard colour: Violet

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1304	C1306	C1307	C1271	C1309	C1311
Number of pairs		1	1	1	1	1	1
Conductor size	AWG	12	14	16	18	20	22
Conductor stranding	mm	19x0.48	19x0.38	19x0.29	7x0.40	7x0.325	7x0.25
Nom. Radial Thickness Insulation	mm	0.8	0.8	0.8	0.5	0.4	0.4
Nom. Radial Thickness Sheath	mm	0.9	0.9	0.8	0.8	0.8	0.6
Nom. Overall Diameter	mm	9.8	8.7	7.7	5.9	5.2	4.4

Electrical Characteristics

BCC Part Number	Unit	C1304	C1306	C1307	C1271	C1309	C1311
No of pairs x conductor AWG size		1PR x 12	1PR x 14	1PR x 16	1PR x 18	1PR x 20	1PR x 22
Max. DC Resistance Conductor	Ω/km	5.61	9.36	15.47	22.7	35.75	57.4
Capacitance conductor to conductor	pF/m	75	75	75	80	80	85
Max. Recommended Current at 25°C	Amps	13	9.5	7.1	5.2	3.9	2.9
Max. Operating Voltage	Vrms	600	600	600	300	300	300

Miscellaneous

BCC Part Number	Unit	C1304	C1306	C1307	C1271	C1309	C1311
No of pairs x conductor AWG size		1PR x 12	1PR x 14	1PR x 16	1PR x 18	1PR x 20	1PR x 22
Operating Temperature	°C	-25 / +75					
Max. Recommended Pulling Tension	N	665	420	270	200	110	80
Min. Bend Radius (install)	mm	98	87	77	59	52	44
Cable weight	kg/km	128.2	95.3	71.8	45.9	34.7	24.7

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BCC BMS-Tec™ - Security and Alarm Cables

1 -2 – 3 - 4 – 5 or 6 pairs x 18AWG

Overall Screen, HFFR Sheath

BCC Part No: C1171 – C1172 – C1173 – C1174 – C1175 – C1176

BRITISH CABLES COMPANY

Applications
Overall screened paired cables suitable for Security and Alarm systems, Audio, Control and Instrumentation

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-3-24
IEC 61034
IEC 60754-1 & 2
RoHS directives

Design
1. Conductor
Bare Copper wires
18AWG (7 x 26)

2. Insulation
Polyolefin
Pair 1: Black/Red
Pair 2: Black/White
Pair 3: Black/Green
Pair 4: Black/Blue
Pair 5: Black/Yellow
Pair 6: Black/Brown

3. Pair
Two twisted wires

4. Cable Core
N pairs stranded

5. Drain Wire
24 AWG (7 x 32) Tinned Copper

6. Screen
Aluminium/Polyester foil
100% Coverage

7. Sheath Material
Halogen-free (HFFR)
Standard colour: Violet

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1171	C1172	C1173	C1174	C1175	C1176
Number of pairs		1	2	3	4	5	6
Conductor size	AWG	18 (7 x 26)	18 (7 x 26)	18 (7 x 26)	18 (7 x 26)	18 (7 x 26)	18 (7 x 26)
Nom. Radial Thickness Insulation	mm	0.25	0.25	0.25	0.25	0.25	0.25
Nom. Radial Thickness Sheath	mm	0.8	0.8	0.8	0.8	0.8	0.8
Nom. Overall Diameter	mm	5.1	7.7	8.1	8.9	9.9	10.2

Electrical Characteristics

BCC Part Number	Unit	C1171	C1172	C1173	C1174	C1175	C1176
Number of pairs		1	2	3	4	5	6
Max. DC Resistance Conductor	Ω/km	22.7	22.7	22.7	22.7	22.7	22.7
Capacitance conductor to conductor	pF/m	115	115	115	115	115	115
Capacitance cond. To rest	pF/m	200	200	200	200	200	200
Max. Recommended Current at 25°C	Amps	4	4	3.5	3.5	3.5	3.5
Max. Operating Voltage	Volt	300	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1171	C1172	C1173	C1174	C1175	C1176
Operating Temperature	°C	-25 / +75					
Max. Recommended Pulling Tension	N	160	317	475	635	795	954
Min. Bend Radius	mm	51	77	81	89	99	102
Nominal Cable Weight	kg/km	4.10	7.41	9.64	12.37	14.92	17.11

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BCC BMS-Tec™ - Security and Alarm Cables

1 -2 – 3 - 4 – 5 or 6 pairs x 18AWG

Overall Screen, HFFR Sheath

BCC Part No: C1418 – C1419 – C1420 – C1421 – C1422 – C1423

BRITISH CABLES COMPANY

Applications
Overall screened paired cables suitable for Security and Alarm systems, Audio, Control and Instrumentation

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-3-24
IEC 61034
IEC 60754-1 & 2
RoHS directives

Design
1. Conductor
Bare Copper wires 18AWG (7 x 26)

2. Insulation
Polyolefin
Pair 1: Black/Red
Pair 2: Black/White
Pair 3: Black/Green
Pair 4: Black/Blue
Pair 5: Black/Yellow
Pair 6: Black/Brown

3. Pair
Two twisted wires

4. Cable Core
N pairs stranded

5. Drain Wire
24 AWG (7 x 32) Tinned Copper

6. Screen
Aluminium/Polyester foil 100% Coverage

7. Screen 2
Tinned Copper braid 90% Coverage

8. Sheath Material
Halogen-free (HFFR)
Standard colour: Violet

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1418	C1419	C1420	C1421	C1422	C1423
Number of pairs		1	2	3	4	5	6
Conductor size	AWG	18 (7 x 26)	18 (7 x 26)	18 (7 x 26)	18 (7 x 26)	18 (7 x 26)	18 (7 x 26)
Nom. Radial Thickness Insulation	mm	0.25	0.25	0.25	0.25	0.25	0.25
Nom. Radial Thickness Sheath	mm	0.8	0.8	0.8	0.8	0.8	0.8
Nom. Overall Diameter	mm	5.8	8.4	8.8	9.6	10.5	10.9

Electrical Characteristics

BCC Part Number	Unit	C1418	C1419	C1420	C1421	C1422	C1423
Number of pairs		1	2	3	4	5	6
Max. DC Resistance Conductor	Ω/km	22.7	22.7	22.7	22.7	22.7	22.7
Capacitance conductor to conductor	pF/m	115	115	115	115	115	115
Capacitance cond. To rest	pF/m	200	200	200	200	200	200
Max. Recommended Current at 25°C	Amps	4	4	3.5	3.5	3.5	3.5
Max. Operating Voltage	Volt	300	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1418	C1419	C1420	C1421	C1422	C1423
Operating Temperature	°C				-25 / +75		
Max. Recommended Pulling Tension	N	160	317	475	635	795	954
Min. Bend Radius	mm	58	84	88	96	105	109
Nominal Cable Weight	kg/km	4.70	10.5	11.6	13.7	16.5	18.6

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BCC BMS-Tec™ - Audio Control & Instrumentation Cables

2 Cores

2 x 0.6mm2, Flexible Bare Copper, Overall Screen, PVC Sheath

BCC Part No: C1381

BRITISH CABLES COMPANY

Applications
Screened Multi-Conductor cable suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-1
RoHS directives

Design
1. Conductor
2 x Bare Copper wire, 0.6 sqmm flexible, 7 x 0.35 mm

2. Insulation
Polyolefin
Core 1: Black
Core 2: Red

3. Drain Wire
7 x 0.20 mm
Tinned Copper

4. Ripcord

5. Screen
Aluminium/Polyester 115% Coverage

6. Sheath Material
Flame-Retardant PVC
Standard colour: Grey

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1381
No of Cores		2
Nom. Diameter Conductor	mm	1.05
Nom. Radial Thickness Insulation	mm	0.2
Nom. Diameter over insulation	mm	1.5
Nom. Radial Thickness Sheath	mm	0.4
Nom. Overall Diameter	mm	3.9

Electrical Characteristics

BCC Part Number	Unit	C1381
No of Cores		2
Max. DC Resistance Conductor	Ω/km	33.4
Max. DC Resistance Screen	Ω/km	78.5
Capacitance conductor to conductor	pF/m	110
Capacitance cond. To other cond.+screen	pF/m	21
Nominal Inductance	µH/m	0.5
Max. Recommended Current at 25°C	Amps	6
Max. Operating Voltage	Vrms	300

Miscellaneous

BCC Part Number	Unit	C1381
No of Cores		2
Operating Temperature	°C	-25 / +75
Max. Recommended Pulling Tension	N	200
Min. Bend Radius (install)	mm	40

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BCC BMS-Tec™ - Multi-Conductor Cables

Application and Construction

BRITISH CABLES COMPANY

Application

All PVC and HFFR sheathed multi-conductor cables are suitable for Building Management Systems (BMS), Sound, Audio, Security, Safety, Control and Instrumentation.

Construction

Wire = conductor without or with insulation. With insulation sometimes also indicated as core.

Conductor: flexible = twisted bare or tinned copper strands, ranging from 12 to 22AWG.

Insulation: Polypropylene (PP) for PVC (Polyvinyl Chloride) sheathed cables and Halogen-Free (HFFR) for HFFR sheathed cables. Both insulations are in accordance with BS EN 50290-2. Good strippable and coloured insulation. The colours are not interchangeable.
Colour scheme of wires with 12 or 14 AWG conductors: black-white-red-green-brown-blue-orange-yellow-purlpe-Grey-pinktan.
Colour scheme of wires with ≥ 16AWG conductors: black-red-white-green-brown-blue-orange-yellow-purlpe-Grey-pink-tan.

Cable core: two or more wires, twisted.
Good twisting (lay-length < 30 – 40D) is necessary otherwise the cable can hardly be bending and will break after a few bends.

Conductor (AWG)	Configuration (AWG)	Configuration (mm)	DC Resistance (Ohm/km)
24	7 x 32	7 x 0.2	≤ 88
22	7 x 30	7 x 0.25	≤ 57.4
20	7 x 28	7 x 0.32	≤ 32.16
18	7 x 26	7 x 0.40	≤ 22.7
16	19 x 29	19 x 0.28	≤ 15.47
14	19 x 27	19 x 0.36	≤ 9.36
12	19 x 25	19 x 0.45	≤ 5.61

Drain wire: (only in combination with a screen): stranded tinned copper wires. In order to avoid corrosion, it is recommended that drain wires are tinned.

Screen: (if applicable): Helically applied (= as a spiral) Aluminium/Polyester (Alpet) foil. For the flexibility of a cable a helically applied foil is to be preferred. A longitudinally applied foil act more as a stiff tube = more difficult to bend.

Sheath: Grey PVC or Violet HFFR or black UV-resistant HFFR, all in accordance with BS EN 50290-2.

Cable configurations	Cables with PVC sheath	Halogen-Free cables
Insulation	PP acc. to (BS)EN 50290-2	HFFR acc. to (BS)EN 50290-2
Sheath	PVC acc. to (BS)EN 50290-2	HFFR acc. to (BS)EN 50290-2
Retardancy	Flame Retardant	Fire Retardant
Retardant acc. to	IEC 60332-1 / UL1581	IEC 60332-3-24 / UL 1685
Low Smoke emission acc. to	Not applicable	IEC 61034
Halogen-free acc. to	Not applicable	IEC 60754
RoHS compliant	Yes	Yes

Operating temperature range: -25 to +75 °C and Rated Voltage: 300 Vrms.

Non-standard cable constructions, colours, details and/or additional information are available on request. For more details, please see the respective detailed datasheet(s).
Please note that technical specifications are subject to change without notice.

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 or 8 Cores
22AWG (7x30), Flexible Bare Copper, Overall Screen, PVC Sheath
BCC Part No: C1226 – C1228 – C1230 - C1264 – C1232

BRITISH CABLES COMPANY

Applications

Multi-Conductor cable suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector

BCC BMS-TEC™

Standard References

(BS) EN 50290-2
IEC 60332-1
RoHS directives

Design

1. Conductor
N x Bare Copper wire, 22AWG flexible

2. Insulation
Polyolefin
Core 1: Black
Core 2: Red
Core 3: White
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange
Core 8: Yellow

3. Drain Wire
24 AWG (7 x 32) Tinned Copper

4. Ripcord

5. Screen
Aluminium/Polyester
100% Coverage

6. Sheath Material
Flame-Retardant
Polyvinyl Chloride (PVC)
Standard colour: Grey

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1226	C1228	C1230	C1264	C1232
No of cores x 22AWG (7 x 30)		2	3	4	6	8
Nom. Diameter Conductor	mm	0.8	0.8	0.8	0.8	0.8
Nom. Radial Thickness Insulation	mm	0.20	0.20	0.20	0.20	0.20
Nom. Radial Thickness Sheath	mm	0.4	0.4	0.4	0.4	0.4
Nom. Overall Diameter	mm	3.3	3.5	3.8	4.5	4.9

Electrical Characteristics

BCC Part Number	Unit	C1226	C1228	C1230	C1264	C1232
No of cores x 22AWG (7 x 30)		2	3	4	6	8
Max. DC Resistance Conductor	Ω/km	52.68	52.68	52.68	52.68	52.68
Max. DC Resistance Screen	Ω/km	78.5	78.5	78.5	78.5	78.5
Capacitance conductor to conductor	pF/m	126	70	64	64	65
Capacitance cond. To other cond.+screen	pF/m	226	132	120	120	115
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	2.8	2.8	2.25	1.95	1.95
Max. Operating Voltage	Vrms	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1226	C1228	C1230	C1264	C1232
No of cores x 22AWG (7 x 30)		2	3	4	6	8
Operating Temperature	°C			-25 / +75		
Max. Recommended Pulling Tension	N	80	121	187	243 3	24
Min. Bend Radius (install)	mm	31	33	36	40	45
Nominal Cable Weight	kg/km	15.7	20	25.3	34.3	42.6

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 or 8 Cores

20AWG (7 x 28), Flexible Bare Copper, Overall Screen, PVC Sheath

BCC Part No: C1019 – C1021 – C1023 - C1260 – C1262

BRITISH CABLES COMPANY

Applications
Screened Multi-Conductor cable suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-1
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 22AWG flexible

2. Insulation
Polyolefin
Core 1: Black
Core 2: Red
Core 3: White
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange
Core 8: Yellow

3. Drain Wire
24 AWG (7 x 32) Tinned Copper

4. Ripcord

5. Screen
Aluminium/Polyester
100% Coverage

6. Sheath Material
Flame-Retardant
Polyvinyl Chloride (PVC)
Standard colour: Grey

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1226	C1228	C1230	C1264	C1232
No of cores x 22AWG (7 x 30)		2	3	4	6	8
Nom. Diameter Conductor	mm	1.0	1.0	1.0	1.0	1.0
Nom. Radial Thickness Insulation	mm	0.2	0.2	0.2	0.2	0.2
Nom. Radial Thickness Sheath	mm	0.4	0.4	0.4	0.4	0.4
Nom. Overall Diameter	mm	3.5	3.7	4.1	5.0	5.4

Electrical Characteristics

BCC Part Number	Unit	C1226	C1228	C1230	C1264	C1232
No of cores x 22AWG (7 x 30)		2	3	4	6	8
Max. DC Resistance Conductor	Ω/km	35.75	35.75	35.75	35.75	35.75
Max. DC Resistance Screen	Ω/km	78.5	78.5	78.5	78.5	78.5
Capacitance conductor to conductor	pF/m	100	90	95	117	105
Capacitance cond. To other cond.+screen	pF/m	200	225	224	220	215
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	5	5	4	3.5	3.5
Max. Operating Voltage	Vrms	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1226	C1228	C1230	C1264	C1232
No of cores x 22AWG (7 x 30)		2	3	4	6	8
Operating Temperature	°C			-25 / +75		
Max. Recommended Pulling Tension	N	112	168	224	336	448
Min. Bend Radius (install)	mm	35	37	41	50	55
Nominal Cable Weight	kg/km	22	28.5	35.4	49.9	62.9

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 – 7or 8 Cores

18AWG (7 x 26), Flexible Bare Copper, Overall Screen, PVC Sheath

BCC Part No: C1013 – C1015 – C1017 - C1211 – C1239 - C1258

BRITISH CABLES COMPANY

Applications
Screened Multi-Conductor cable suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-1
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 18AWG flexible

2. Insulation
Polyolefin
Core 1: Black
Core 2: Red
Core 3: White
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange
Core 8: Yellow

3. Drain Wire
24 AWG (7 x 32) Tinned Copper

4. Ripcord

5. Screen
Aluminium/Polyester
100% Coverage

6. Sheath Material
Flame-Retardant
Polyvinyl Chloride (PVC)
Standard colour: Grey

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1013	C1015	C1017	C1211	C1239	C1258
No of cores x 18AWG (7 x 26)		2	3	4	6	7	8
Nom. Diameter Conductor	mm	1.2	1.2	1.2	1.2	1.2	1.2
Nom. Radial Thickness Insulation	mm	0.2	0.2	0.2	0.2	0.2	0.2
Nom. Radial Thickness Sheath	mm	0.4	0.4	0.4	0.4	0.4	0.4
Nom. Overall Diameter	mm	4.0	4.2	4.6	5.75	5.9	6.4

Electrical Characteristics

BCC Part Number	Unit	C1013	C1015	C1017	C1211	C1239	C1258
No of cores x 18AWG (7 x 26)		2	3	4	6	7	8
Max. DC Resistance Conductor	Ω/km	20.58	20.58	20.58	20.58	20.58	20.58
Max. DC Resistance Screen	Ω/km	78.5	78.5	78.5	78.5	78.5	78.5
Capacitance conductor to conductor	pF/m	120	129	105	95	80	75
Capacitance cond. To other cond.+screen	pF/m	225	230	190	190	175	176
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	5	5	4	3.5	3.5	3.5
Max. Operating Voltage	Vrms	300	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1013	C1015	C1017	C1211	C1239	C1258
No of cores x 18AWG (7 x 26)		2	3	4	6	7	8
Operating Temperature	°C				-25 / +75		
Max. Recommended Pulling Tension	N	200	299	399	600	620	797
Min. Bend Radius (install)	mm	40	42	46	58	60	60
Nominal Cable Weight	kg/km	29.6 3	9.2	49.4	70.9	79	89.5

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 or 8 Cores

16AWG (19 x 29), Flexible Bare Copper, Overall Screen, PVC Sheath

BCC Part No: C1007 – C1009 – C1011 - C1252 – C1254

BRITISH CABLES COMPANY

Applications
Screened Multi-Conductor cable suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-1
UL 1581
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 16AWG flexible

2. Insulation
Polyolefin
Core 1: Black
Core 2: Red
Core 3: White
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange
Core 8: Yellow

3. Drain Wire
24 AWG (7 x 32) Tinned Copper

4. Ripcord

5. Screen
Aluminium/Polyester
100% Coverage

6. Sheath Material
Flame-Retardant
Polyvinyl Chloride (PVC)
Standard colour: Grey

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1007	C1009	C1011	C1252	C1254
No of cores x 16AWG (19 x 29)		2	3	4	6	8
Nom. Diameter Conductor	mm	1.4	1.4	1.4	1.4	1.4
Nom. Radial Thickness Insulation	mm	0.2	0.2	0.2	0.2	0.2
Nom. Radial Thickness Sheath	mm	0.4	0.4	0.4	0.4	0.4
Nom. Overall Diameter	mm	4.6	4.9	5.3	6.8	7.6

Electrical Characteristics

BCC Part Number	Unit	C1007	C1009	C1011	C1252	C1254
No of cores x 16AWG (19 x 29)		2	3	4	6	8
Max. DC Resistance Conductor	Ω/km	15.47	15.47	15.47	15.47	15.47
Max. DC Resistance Screen	Ω/km	78.5	78.5	78.5	78.5	78.5
Capacitance conductor to conductor	pF/m	115	119	100	100	100
Capacitance cond. To other cond.+screen	pF/m	230	362	185	180	178
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	6.25	6.25	5	4.35	4.35
Max. Operating Voltage	Vrms	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1007	C1009	C1011	C1252	C1254
No of cores x 16AWG (19 x 29)		2	3	4	6	8
Operating Temperature	°C			-25 / +75		
Max. Recommended Pulling Tension	N	262	391	520	780	1040
Min. Bend Radius (install)	mm	46	49	53	68	76
Nominal Cable Weight	kg/km	37.3	50	63.5	91.6	120.8

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 or 8 Cores

14AWG (19x27), Flexible Bare Copper, Overall Screen, PVC Sheath

BCC Part No: C1001 – C1003 – C1005 - C1248 – C1250

BRITISH CABLES COMPANY

Applications
Screened Multi-Conductor cable suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-1
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 14AWG flexible

2. Insulation
Polyolefin
Core 1: Black
Core 2: Red
Core 3: White
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange
Core 8: Yellow

3. Drain Wire
24 AWG (7 x 32) Tinned Copper

4. Ripcord

5. Screen
Aluminium/Polyester
100% Coverage

6. Sheath Material
Flame-Retardant
Polyvinyl Chloride (PVC)
Standard colour: Grey

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1001	C1003	C1005	C1248	C1250
No of cores x 14AWG (19 x 27)		2	3	4	6	8
Nom. Diameter Conductor	mm	1.8	1.8	1.8	1.8	1.8
Nom. Radial Thickness Insulation	mm	0.3	0.3	0.3	0.3	0.3
Nom. Radial Thickness Sheath	mm	0.4	0.4	0.4	0.4	0.4
Nom. Overall Diameter	mm	6.0	6.5	6.9	8.6	9.8

Electrical Characteristics

BCC Part Number	Unit	C1001	C1003	C1005	C1248	C1250
No of cores x 14AWG (19 x 27)		2	3	4	6	8
Max. DC Resistance Conductor	Ω/km	9.36	9.36	9.36	9.36	9.36
Max. DC Resistance Screen	Ω/km	78.5	78.5	78.5	78.5	78.5
Capacitance conductor to conductor	pF/m	115	100	98	96	95
Capacitance cond. To other cond.+screen	pF/m	362	372	178	175	170
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	8	8	6.4	5.6	5.6
Max. Operating Voltage	Vrms	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1001	C1003	C1005	C1248	C1250
No of cores x 14AWG (19 x 27)		2	3	4	6	8
Operating Temperature	°C			-25 / +75		
Max. Recommended Pulling Tension	N	420	635	845	1265	1685
Min. Bend Radius (install)	mm	60	65	70	70	100
Nominal Cable Weight	kg/km	57	79.9	102.5	151	197.3

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 5 – 6 or 8 cores

12AWG (19 x 25),Flexible Bare Copper, Overall Screen, PVC Jacket

Overall Shield - PVC Jacket

BCC Part No: C1322 – C1324 – C1326– C1330 – C1332

BRITISH CABLES COMPANY

Applications
Screened Multi-Conductor cable suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-1
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 12AWG flexible

2. Insulation
Polypropylene PP
Core 1: Black
Core 2: White
Core 3: Red
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange Core
Core 8: Yellow

3. Drain Wire
20 AWG (7 x 28) Tinned Copper

4. Ripcord

5. Screen
Aluminium/Polyester 100% Coverage

6. Sheath Material
PVC
Standard colour: Grey

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1323	C1325	C1327	C1331	C1333
No of cores x 12AWG (19 x 25)		2	3	4	6	8
Nom. Diameter Conductor	mm	2.3	2.3	2.3	2.3	2.3
Nom. Radial Thickness Insulation	mm	0.3	0.3	0.3	0.3	0.3
Nom. Radial Thickness Jacket	mm	0.4	0.4	0.4	0.4	0.4
Nom. Overall Diameter	mm	6.9	7.4	8.2	9.8	10.7

Electrical Characteristics

BCC Part Number	Unit	C1322	C1324	C1326	C1330	C1332
No of cores x 12AWG (19 x 25)		2	3	4	6	8
Max. DC Resistance Conductor	Ω/km	5.61	5.61	5.61	5.61	5.61
Max. DC Resistance Shield	Ω/km	78.5	78.5	78.5	78.5	78.5
Capacitance conductor to conductor	pF/m	110	105	96	94	94
Capacitance conductor to rest	pF/m	78	381	200	195	188
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	12	12	9.6	8.4	8.4
Max. Operating Voltage	Vrms	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1322	C1324	C1326	C1330	C1332
No of cores x 12AWG (19 x 25)		2	3	4	6	8
Operating Temperature	°C			-25 / +75		
Max. Recommended Pulling Tension	N	675	1015	1350	2025	2700
Min. Bend Radius (install)	mm	75	79	87	104	113
Nominal Cable Weight	kg/km	97	129.7	165.7	237.1	306.2

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 or 8 Cores

22AWG (7x30), Flexible Bare Copper, Unscreened, PVC Sheath

BCC Part No: C1227 – C1278 – C1231 - C1265 – C1233

BRITISH CABLES COMPANY

Applications
Multi-Conductor cable (no overall screen) suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-1
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 22AWG flexible

2. Insulation
Polyolefin
Core 1: Black
Core 2: Red
Core 3: White
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange
Core 8: Yellow

3. Ripcord

4. Sheath Material
Flame-Retardant Polyvinyl Chloride (PVC)
Standard colour: Grey

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1227	C1278	C1231	C1265	C1233
No of cores x 22AWG (7 x 30)		2	3	4	6	8
Nom. Diameter Conductor	mm	0.8	0.8	0.8	0.8	0.8
Nom. Radial Thickness Insulation	mm	0.20	0.20	0.20	0.20	0.20
Nom. Radial Thickness Sheath	mm	0.4	0.4	0.4	0.4	0.4
Nom. Overall Diameter	mm	3.3	3.5	3.8	4.5	4.9

Electrical Characteristics

BCC Part Number	Unit	C1227	C1278	C1231	C1265	C1233
No of cores x 22AWG (7 x 30)		2	3	4	6	8
Max. DC Resistance Conductor	Ω/km	52.68	52.68	52.68	52.68	52.68
Capacitance conductor to conductor	pF/m	66	72	72	60	54
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	2.8	2.8	2.25	1.95	1.95
Max. Operating Voltage	Vrms	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1227	C1278	C1231	C1265	C1233
No of cores x 22AWG (7 x 30)		2	3	4	6	8
Operating Temperature	°C			-25 / +75		
Max. Recommended Pulling Tension	N	80	121	187	243	324
Min. Bend Radius (install)	mm	31	33	36	40	45
Nominal Cable Weight	kg/km	13.4	18.2	22	32	40.3

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 or 8 Cores

20AWG (7 x 28), Flexible Bare Copper, Unscreened, PVC Sheath

BCC Part No: C1020 – C1022 – C1024 - C1261 – C1263

BRITISH CABLES COMPANY

Applications
Unscreened Multi-Conductor cable suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-1
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 20AWG flexible

2. Insulation
Polyolefin
Core 1: Black
Core 2: Red
Core 3: White
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange
Core 8: Yellow

3. Ripcord

4. Sheath Material
Flame-Retardant Polyvinyl Chloride (PVC)
Standard colour: Grey

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1020	C1022	C1024	C1261	C1263
No of cores x 20AWG (7 x 28)		2	3	4	6	8
Nom. Diameter Conductor	mm	1.0	1.0	1.0	1.0	1.0
Nom. Radial Thickness Insulation	mm	0.2	0.2	0.2	0.2	0.2
Nom. Radial Thickness Sheath	mm	0.4	0.4	0.4	0.4	0.4
Nom. Overall Diameter	mm	3.4	3.6	4.0	4.9	5.3

Electrical Characteristics

BCC Part Number	Unit	C1020	C1022	C1024	C1261	C1263
No of cores x 20AWG (7 x 28)		2	3	4	6	8
Max. DC Resistance Conductor	Ω/km	35.75	35.75	35.75	35.75	35.75
Capacitance conductor to conductor	pF/m	39	47	47	45	45
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	3.75	3.75	3	2.6	2.6
Max. Operating Voltage	Vrms	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1020	C1022	C1024	C1261	C1263
No of cores x 20AWG (7 x 28)		2	3	4	6	8
Operating Temperature	°C			-25 / +75		
Max. Recommended Pulling Tension	N	112	168	224	336	448
Min. Bend Radius (install)	mm	35	37	41	50	55
Nominal Cable Weight	kg/km	19.7	26.2	33.1	47.9	60.6

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 5 – 6 or 8 Cores

18AWG (7 x 26), Flexible Bare Copper, Unscreened, PVC Sheath

BCC Part No: C1014 – C1016 – C1018 -C1054- C1212 – C1259

BRITISH CABLES COMPANY

Applications
Unscreened Multi-Conductor cable suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-1
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 18AWG flexible

2. Insulation
Polyolefin
Core 1: Black
Core 2: Red
Core 3: White
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange
Core 8: Yellow

3. Ripcord

4. Sheath Material
Flame-Retardant Polyvinyl Chloride (PVC)
Standard colour: Grey

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1014	C1016	C1018	C1054	C1212	C1259
No of cores x 18AWG (7 x 26)		2	3	4	6	7	8
Nom. Diameter Conductor	mm	1.2	1.2	1.2	1.2	1.2	1.2
Nom. Radial Thickness Insulation	mm	0.2	0.2	0.2	0.2	0.2	0.2
Nom. Radial Thickness Sheath	mm	0.4	0.4	0.4	0.4	0.4	0.4
Nom. Overall Diameter	mm	3.9	4.1	4.55	5.20	5.7	5.9

Electrical Characteristics

BCC Part Number	Unit	C1014	C1016	C1018	C1054	C1212	C1259
No of cores x 18AWG (7 x 26)		2	3	4	6	7	8
Max. DC Resistance Conductor	Ω/km	22.7	22.7	22.7	22.7	22.7	22.7
Capacitance conductor to conductor	pF/m	52	65	50	50	50	50
Max. Recommended Current at 25°C	Amps	5	5	4	3.5	3.5	3.5
Max. Operating Voltage	Vrms	300	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1014	C1016	C1018	C1054	C1212	C1259
No of cores x 18AWG (7 x 26)		2	3	4	6	7	8
Operating Temperature	°C				-25 / +75		
Max. Recommended Pulling Tension	N	200	299	399	500	600	797
Min. Bend Radius (install)	mm	40	42	46	52	58	60
Nominal Cable Weight	kg/km	27.3	36.9	47.2	58.1	68.2	87

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 or 8 Cores

16AWG (19 x 29), Flexible Bare Copper, Unscreened, PVC Sheath

BCC Part No: C1008 – C1010 – C1012 - C1253 – C1255

BRITISH CABLES COMPANY

Applications
Unscreened Multi-Conductor cable suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-1
UL 1581
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 16AWG flexible

2. Insulation
Polyolefin
Core 1: Black
Core 2: Red
Core 3: White
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange
Core 8: Yellow

3. Ripcord

4. Sheath Material
Flame-Retardant Polyvinyl Chloride (PVC)
Standard colour: Grey

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1008	C1010	C1012	C1253	C1255
No of cores x 16AWG (19 x 29)		2	3	4	6	8
Nom. Diameter Conductor	mm	1.4	1.4	1.4	1.4	1.4
Nom. Radial Thickness Insulation	mm	0.2	0.2	0.2	0.2	0.2
Nom. Radial Thickness Sheath	mm	0.4	0.4	0.4	0.4	0.4
Nom. Overall Diameter	mm	4.5	4.75	5.25	6.7	7.5

Electrical Characteristics

BCC Part Number	Unit	C1008	C1010	C1012	C1253	C1255
No of cores x 16AWG (19 x 29)		2	3	4	6	8
Max. DC Resistance Conductor	Ω/km	15.47	15.47	15.47	15.47	15.47
Capacitance conductor to conductor	pF/m	58	56	55	54	53
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	6.25	6.25	5	4.35	4.35
Max. Operating Voltage	Vrms	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1008	C1010	C1012	C1253	C1255
No of cores x 16AWG (19 x 29)		2	3	4	6	8
Operating Temperature	°C			-25 / +75		
Max. Recommended Pulling Tension	N	262	391	520	780	1040
Min. Bend Radius (install)	mm	46	49	53	68	76
Nominal Cable Weight	kg/km	35	47.7	61.1	89	118.1

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 or 8 Cores

14AWG (19 x 27), Flexible Bare Copper, Unscreened, PVC Sheath

BCC Part No: C1002 – C1004 – C1006 - C1249 – C1251

BRITISH CABLES COMPANY

Applications
Unscreened Multi-Conductor cable suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-1
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 14AWG flexible

2. Insulation
Polyolefin
Core 1: Black
Core 2: Red
Core 3: White
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange
Core 8: Yellow

3. Ripcord

4. Sheath Material
Flame-Retardant Polyvinyl Chloride (PVC)
Standard colour: Grey

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1002	C1004	C1006	C1249	C1251
No of cores x 14AWG (19 x 27)		2	3	4	6	8
Nom. Diameter Conductor	mm	1.8	1.8	1.8	1.8	1.8
Nom. Radial Thickness Insulation	mm	0.3	0.3	0.3	0.3	0.3
Nom. Radial Thickness Sheath	mm	0.4	0.4	0.4	0.4	0.4
Nom. Overall Diameter	mm	5.75	6.35	6.75	8.4	9.7

Electrical Characteristics

BCC Part Number	Unit	C1002	C1004	C1006	C1249	C1251
No of cores x 14AWG (19 x 27)		2	3	4	6	8
Max. DC Resistance Conductor	Ω/km	9.36	9.36	9.36	9.36	9.36
Capacitance conductor to conductor	pF/m	74	74	74	74	74
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	8	8	6.4	5.6	5.6
Max. Operating Voltage	Vrms	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1002	C1004	C1006	C1249	C1251
No of cores x 14AWG (19 x 27)		2	3	4	6	8
Operating Temperature	°C			-25 / +75		
Max. Recommended Pulling Tension	N	420	635	845	1265	1685
Min. Bend Radius (install)	mm	60	65	70	70	100
Nominal Cable Weight	kg/km	53.3	72.5	97.1	148.2	194.5

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 or 8 Cores

12AWG (19x25), Flexible Bare Copper, Unscreened, PVC Sheath

BCC Part No: C1323 – C1325 – C1327– C1331 – C1333

BRITISH CABLES COMPANY

Applications
Screened Multi-Conductor cable suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-1

Design
1. Conductor
N x Bare Copper wire, 12AWG flexible

2. Insulation
Polypropylene PP
Core 1: Black
Core 2: White
Core 3: Red
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange Core
Core 8: Yellow

3. Ripcord

4. Sheath Material
PVC
Standard colour: Grey

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1323	C1325	C1327	C1331	C1333
No of cores x 12AWG (19 x 25)		2	3	4	6	8
Nom. Diameter Conductor	mm	2.3	2.3	2.3	2.3	2.3
Nom. Radial Thickness Insulation	mm	0.3	0.3	0.3	0.3	0.3
Nom. Radial Thickness Jacket	mm	0.8	0.8	0.8	0.8	0.8
Nom. Overall Diameter	mm	7.5	7.9	8.7	10.4	11.4

Electrical Characteristics

BCC Part Number	Unit	C1323	C1325	C1327	C1331	C1333
No of cores x 12AWG (19 x 25)		2	3	4	6	8
Max. DC Resistance Conductor	Ω/km	5.61	5.61	5.61	5.61	5.61
Capacitance conductor to conductor	pF/m	70	75	70	70	70
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	12	12	9.6	8.4	8.4
Max. Operating Voltage	Vrms	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1323	C1325	C1327	C1331	C1333
No of cores x 12AWG (19 x 25)		2	3	4	6	8
Operating Temperature	°C			-25 / +75		
Max. Recommended Pulling Tension	N	675	1015	1350	2025	2700
Min. Bend Radius (install)	mm	75	79	87	104	113
Nominal Cable Weight	kg/km	97	129.7	165.7	237.1	306.2

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 or 8 Cores

22AWG (7x30), Flexible Bare Copper, Overall Screen, HFFR Sheath

BCC Part No: C1741 – C1743 – C1745 – C1747 – C1749

BRITISH CABLES COMPANY

Applications
Screened Multi-Conductor cables suitable for Audio,Control, Instrumentation and Building ManagementSystems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60754-1 & 2
IEC 61034
IEC 60332-3C
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 22AWG flexible

2. Insulation
Polyolefin
Core 1: Black
Core 2: Red
Core 3: White
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange
Core 8: Yellow

3. Drain Wire
24 AWG (7 x 32) Tinned Copper

4. Screen
Aluminium/Polyester 100% Coverage

5.Ripcord

6. Sheath Material
Flame-Retardant
Halogen Free (HFFR)
Standard colour: Violet

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1741	C1743	C1745	C1747	C1749
No of cores x 22AWG (7 x 30)		2	3	4	6	8
Nom. Diameter Conductor	mm	0.75	0.75	0.75	0.75	0.75
Nom. Radial Thickness Insulation	mm	0.25	0.25	0.25	0.25	0.25
Nom. Radial Thickness Sheath	mm	0.7	0.7	0.7	0.7	0.7
Nom. Overall Diameter	mm	3.9	4.1	4.4	5.2	5.6

Electrical Characteristics

BCC Part Number	Unit	C1741	C1743	C1745	C1747	C1749
No of cores x 22AWG (7 x 30)		2	3	4	6	8
Max. DC Resistance Conductor	Ω/km	57.4	57.4	57.4	57.4	57.4
Max. DC Resistance Screen	Ω/km	78.5	78.5	78.5	78.5	78.5
Capacitance conductor to conductor	pF/m	150	115	120	115	110
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	2.8	2.8	2.25	1.95	1.95
Max. Operating Voltage	Vrms	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1741	C1743	C1745	C1747	C1749
No of cores x 22AWG (7 x 30)		2	3	4	6	8
Operating Temperature	°C			-25 / +75		
Max. Recommended Pulling Tension	N	50	75	100	150	200
Min. Bend Radius (install)	mm	39	41	44	52	56
Nominal Cable Weight	kg/km	20.5	25.2	29.9	41	50.6

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 or 8 Cores

22AWG (7x30), Flexible Bare Copper, Overall Screen, HFFR Sheath

BCC Part No: C1731 – C1733 – C1735 – C1737 – C1739

BRITISH CABLES COMPANY

Applications
Screened Multi-Conductor cables suitable for Audio,Control, Instrumentation and Building ManagementSystems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60754-1 & 2
IEC 61034 IEC 60332-3C
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 20AWG flexible

2. Insulation
Polyolefin
Core 1: Black
Core 2: Red
Core 3: White
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange
Core 8: Yellow

3. Drain Wire
24 AWG (7 x 32) Tinned Copper

4. Screen
Aluminium/Polyester 100% Coverage

5.Ripcord

6. Sheath Material
Flame-Retardant
Halogen Free (HFFR)
Standard colour: Violet

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1731	C1733	C1735	C1737	C1739
No of cores x 20AWG (7 x 28)		2	3	4	6	8
Nom. Diameter Conductor	mm	1.0	1.0	1.0	1.0	1.0
Nom. Radial Thickness Insulation	mm	0.25	0.25	0.25	0.25	0.25
Nom. Radial Thickness Sheath	mm	0.8	0.8	0.8	0.8	0.8
Nom. Overall Diameter	mm	4.7	4.9	5.3	6.2	6.7

Electrical Characteristics

BCC Part Number	Unit	C1741	C1743	C1745	C1747	C1749
No of cores x 22AWG (7 x 30)		2	3	4	6	8
Min. Insulation Resistance	MΩ*km	200	200	200	200	200
Max. DC Resistance Conductor	Ω/km	35.75	35.75	35.75	35.75	35.75
Max. DC Resistance Screen	Ω/km	78.5	78.5	78.5	78.5	78.5
Capacitance conductor to conductor	pF/m	150	120	115	115	115
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	3.75	3.75	3	2.6	2.6
Max. Operating Voltage	Vrms	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1741	C1743	C1745	C1747	C1749
No of cores x 22AWG (7 x 30)		2	3	4	6	8
Operating Temperature	°C			-25 / +75		
Max. Recommended Pulling Tension	N	112	168	224	336	448
Min. Bend Radius (install)	mm	47	49	53	62	67
Nominal Cable Weight	kg/km	30.8	37.7	45.8	62.6	78

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 or 8 Cores

18AWG (7x26), Flexible Bare Copper, Overall Screen, HFFR Sheath

BCC Part No: C1721 – C1723 – C1725 – C1727 – C1729

BRITISH CABLES COMPANY

Applications
Screened Multi-Conductor cables suitable for Audio,Control, Instrumentation and Building ManagementSystems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60754-1 & 2
IEC 61034
IEC 60332-3C
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 18AWG flexible

2. Insulation
Polyolefin
Core 1: Black
Core 2: Red
Core 3: White
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange
Core 8: Yellow

3. Drain Wire
24 AWG (7 x 32) Tinned Copper

4. Screen
Aluminium/Polyester 100% Coverage

5.Ripcord

6. Sheath Material
Flame-Retardant
Halogen Free (HFFR)
Standard colour: Violet

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1721	C1723	C1725	C1727	C1729
No of cores x 18AWG (7 x 26)		2	3	4	6	8
Nom. Diameter Conductor	mm	1.2	1.2	1.2	1.2	1.2
Nom. Radial Thickness Insulation	mm	0.25	0.25	0.25	0.25	0.25
Nom. Radial Thickness Sheath	mm	0.8	0.8	0.8	0.8	0.8
Nom. Overall Diameter	mm	5.1	5.4	5.8	6.8	7.3

Electrical Characteristics

BCC Part Number	Unit	C1721	C1723	C1725	C1727	C1729
No of cores x 18AWG (7 x 26)		2	3	4	6	8
Max. DC Resistance Conductor	Ω/km	22.7	22.7	22.7	22.7	22.7
Max. DC Resistance Screen	Ω/km	78.5	78.5	78.5	78.5	78.5
Capacitance conductor to conductor	pF/m	175	150	150	160	160
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	5	5	4	3.5	3.5
Max. Operating Voltage	Vrms	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1721	C1723	C1725	C1727	C1729
No of cores x 18AWG (7 x 26)		2	3	4	6	8
Operating Temperature	°C			-25 / +75		
Max. Recommended Pulling Tension	N	200	299	399	600	797
Min. Bend Radius (install)	mm	51	54	58	68	73
Nominal Cable Weight	kg/km	37.9	48.8	59.3	82	102.5

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 or 8 Cores

16AWG (19x29), Flexible Bare Copper, Overall Screen, HFFR Sheath

BCC Part No: C1711 – C1713 – C1715 – C1717 – C1719

BRITISH CABLES COMPANY

Applications
Screened Multi-Conductor cables suitable for Audio,Control, Instrumentation and Building ManagementSystems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60754-1 & 2
IEC 61034
IEC 60332-3C
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 16AWG flexible

2. Insulation
Polyolefin
Core 1: Black
Core 2: Red
Core 3: White
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange
Core 8: Yellow

3. Drain Wire
24 AWG (7 x 32) Tinned Copper

4. Screen
Aluminium/Polyester 100% Coverage

5.Ripcord

6. Sheath Material
Flame-Retardant
Halogen Free (HFFR)
Standard colour: Violet

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1711	C1713	C1715	C1717	C1719
No of cores x 16AWG (19 x 29)		2	3	4	6	8
Nom. Diameter Conductor	mm	1.4	1.4	1.4	1.4	1.4
Nom. Radial Thickness Insulation	mm	0.25	0.25	0.25	0.25	0.25
Nom. Radial Thickness Sheath	mm	0.8	0.8	0.8	0.8	0.8
Nom. Overall Diameter	mm	5.5	5.8	6.3	7.4	8.0

Electrical Characteristics

BCC Part Number	Unit	C1711	C1713	C1715	C1717	C1719
No of cores x 16AWG (19 x 29)		2	3	4	6	8
Max. DC Resistance Conductor	Ω/km	15.47	15.47	15.47	15.47	15.47
Max. DC Resistance Screen	Ω/km	78.5	78.5	78.5	78.5	78.5
Capacitance conductor to conductor	pF/m	170	152	165	165	165
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	6.25	6.25	5	4.35	4.35
Max. Operating Voltage	Vrms	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1711	C1713	C1715	C1717	C1719
No of cores x 16AWG (19 x 29)		2	3	4	6	8
Operating Temperature	°C			-25 / +75		
Max. Recommended Pulling Tension	N	260	390	520	780	1040
Min. Bend Radius (install)	mm	55	58	63	74	80
Nominal Cable Weight	kg/km	45.4	59.2	73.6	102.6	130.4

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 or 8 Cores

14AWG (19x27), Flexible Bare Copper, Overall Screen, HFFR Sheath

BCC Part No: C1701 – C1703 – C1705 – C1707 – C1709

BRITISH CABLES COMPANY

Applications
Screened Multi-Conductor cables suitable for Audio,Control, Instrumentation and Building ManagementSystems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60754-1 & 2
IEC 61034
IEC 60332-3C
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 14AWG flexible

2. Insulation
Polyolefin
Core 1: Black
Core 2: Red
Core 3: White
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange
Core 8: Yellow

3. Drain Wire
24 AWG (7 x 32) Tinned Copper

4. Screen
Aluminium/Polyester 100% Coverage

5.Ripcord

6. Sheath Material
Flame-Retardant
Halogen Free (HFFR)
Standard colour: Violet

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1701	C1703	C1705	C1707	C1709
No of cores x 14AWG (19 x 27)		2	3	4	6	8
Nom. Diameter Conductor	mm	1.8	1.8	1.8	1.8	1.8
Nom. Radial Thickness Insulation	mm	0.3	0.3	0.3	0.3	0.3
Nom. Radial Thickness Sheath	mm	0.8	0.8	0.8	0.8	0.8
Nom. Overall Diameter	mm	6.5	6.9	7.5	8.9	9.6

Electrical Characteristics

BCC Part Number	Unit	C1701	C1703	C1705	C1707	C1709
No of cores x 14AWG (19 x 27)		2	3	4	6	8
Max. DC Resistance Conductor	Ω/km	9.36	9.36	9.36	9.36	9.36
Max. DC Resistance Screen	Ω/km	78.5	78.5	78.5	78.5	78.5
Capacitance conductor to conductor	pF/m	240	200	210	210	210
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	8	8	6.4	5.6	5.6
Max. Operating Voltage	Vrms	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1701	C1703	C1705	C1707	C1709
No of cores x 14AWG (19 x 27)		2	3	4	6	8
Operating Temperature	°C			-25 / +75		
Max. Recommended Pulling Tension	N	420	635	845	1265	1685
Min. Bend Radius (install)	mm	65	69	75	89	96
Nominal Cable Weight	kg/km	64.4	86	107.8	152.6	194.4

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 or 8 Cores

12AWG (19x25), Flexible Bare Copper, Overall Screen, HFFR Sheath

BCC Part No: C1334 – C1336 – C1338– C1340 - C1342 – C1344

BRITISH CABLES COMPANY

Applications
Screened Multi-Conductor cable suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-3-24 (was 3C) IEC 61034
IEC 60754-1 & 2
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 12AWG flexible

2. Insulation
HFFR
Core 1: Black
Core 2: White
Core 3: Red
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange
Core 8: Yellow

3. Drain Wire
20 AWG (7 x 28) Tinned Copper

4. Ripcord

5. Screen
Aluminium/Polyester 100% Coverage

4. Sheath Material
Flame-Retardant
Halogen Free (HFFR)
Standard colour: Violet

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1334	C1336	C1338	C1340	C1342	C1344
No of cores x 12AWG (19 x 25)		2	3	4	5	6	8
Nom. Diameter Conductormm	2.3	2.3	2.3	2.3	2.3	2.3	1.2
Nom. Radial Thickness Insulation	mm	0.3	0.3	0.3	0.3	0.3	0.3
Nom. Radial Thickness Jacket	mm	0.8	0.8	0.8	0.8	0.8	0.8
Nom. Overall Diameter	mm	7.7	8.1	8.9	9.7	10.6	11.6

Electrical Characteristics

BCC Part Number	Unit	C1334	C1336	C1338	C1340	C1342	C1344
No of cores x 12AWG (19 x 25)		2	3	4	5	6	8
Max. DC Resistance Conductor	Ω/km	5.61	5.61	5.61	5.61	5.61	5.61
Max. DC Resistance Shield	Ω/km	78.5	78.5	78.5	78.5	78.5	78.5
Capacitance conductor to conductor	pF/m	190	190	190	185	180	176
Capacitance conductor to rest	pF/m	345	345	345	335	323	320
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	12	12	9.6	8.4	8.4	8.4
Max. Operating Voltage	Vrms	300	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1334	C1336	C1338	C1340	C1342	C1344
No of cores x 12AWG (19 x 25)		2	3	4	5	6	8
Operating Temperature	°C				-25 / +75		
Max. Recommended Pulling Tension	N	675	1015	1350	1690	2025	2700
Min. Bend Radius (install)	mm	75	79	87	95	104	113
Nominal Cable Weight	kg/km	102.2	135	170.9	206.9	243.3	314.6

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 or 8 Cores

22AWG (7x30), Flexible Bare Copper, Unscreened, HFFR Sheath

BCC Part No: C1742 – C1744 – C1746 – C1748 – C1750

BRITISH CABLES COMPANY

Applications
Multi-Conductor cables suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60754-1 & 2
IEC 61034
IEC 60332-3C
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 22AWG flexible

2. Insulation
Polyolefin
Core 1: Black
Core 2: Red
Core 3: White
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange
Core 8: Yellow

3. Ripcord

4. Sheath Material
Flame-Retardant
Halogen Free (HFFR)
Standard colour: Violet

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1742	C1744	C1746	C1748	C1750
No of cores x 22AWG (7 x 30)		2	3	4	6	8
Nom. Diameter Conductor	mm	0.75	0.75	0.75	0.75	0.75
Nom. Radial Thickness Insulation	mm	0.25	0.25	0.25	0.25	0.25
Nom. Radial Thickness Sheath	mm	0.7	0.7	0.7	0.7	0.7
Nom. Overall Diameter	mm	3.9	4.1	4.4	5.2	5.6

Electrical Characteristics

BCC Part Number	Unit	C1742	C1744	C1746	C1748	C1750
No of cores x 22AWG (7 x 30)		2	3	4	6	8
Max. DC Resistance Conductor	Ω/km	57.4	57.4	57.4	57.4	57.4
Capacitance conductor to conductor	pF/m	90	85	80	80	80
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	2.8	2.8	2.25	1.95	1.95
Max. Operating Voltage	Vrms	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1742	C1744	C1746	C1748	C1750
No of cores x 22AWG (7 x 30)		2	3	4	6	8
Operating Temperature	°C			-25 / +75		
Max. Recommended Pulling Tension	N	50	75	100	150	200
Min. Bend Radius (install)	mm	39	41	44	52	56
Nominal Cable Weight	kg/km	18.5	23.2	27.9	39	48.6

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 or 8 Cores

20AWG (7x28), Flexible Bare Copper, Unscreened, HFFR Sheath

BCC Part No: C1732 – C1734 – C1736 – C1738 – C1740

BRITISH CABLES COMPANY

Applications
Multi-Conductor cables suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60754-1 & 2
IEC 61034
IEC 60332-3C
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 20AWG flexible

2. Insulation
Polyolefin
Core 1: Black
Core 2: Red
Core 3: White
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange
Core 8: Yellow

3. Ripcord

4. Sheath Material
Flame-Retardant
Halogen Free (HFFR)
Standard colour: Violet

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1732	C1734	C1736	C1738	C1740
No of cores x 20AWG (7 x 28)		2	3	4	6	8
Nom. Diameter Conductor	mm	1.0	1.0	1.0	1.0	1.0
Nom. Radial Thickness Insulation	mm	0.25	0.25	0.25	0.25	0.25
Nom. Radial Thickness Sheath	mm	0.8	0.8	0.8	0.8	0.8
Nom. Overall Diameter	mm	4.6	4.8	5.2	6.1	6.6

Electrical Characteristics

BCC Part Number	Unit	C1732	C1734	C1736	C1738	C1740
No of cores x 20AWG (7 x 28)		2	3	4	6	8
Max. DC Resistance Conductor	Ω/km	35.75	35.75	35.75	35.75	35.75
Capacitance conductor to conductor	pF/m	85	80	70	70	70
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	3.75	3.75	3	2.6	2.6
Max. Operating Voltage	Vrms	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1732	C1734	C1736	C1738	C1740
No of cores x 20AWG (7 x 28)		2	3	4	6	8
Operating Temperature	°C			-25 / +75		
Max. Recommended Pulling Tension	N	112	168	224	336	448
Min. Bend Radius (install)	mm	46	48	52	61	66
Nominal Cable Weight	kg/km	27.7	34.5	42.5	59.1	74.4

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 or 8 Cores

18AWG (7x26), Flexible Bare Copper, Unscreened, HFFR Sheath

BCC Part No: C1722 – C1724 – C1726 – C1728 – C1730

BRITISH CABLES COMPANY

Applications
Multi-Conductor cables suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60754-1 & 2
IEC 61034
IEC 60332-3C
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 18AWG flexible

2. Insulation
Polyolefin
Core 1: Black
Core 2: Red
Core 3: White
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange
Core 8: Yellow

3. Ripcord

4. Sheath Material
Flame-Retardant
Halogen Free (HFFR)
Standard colour: Violet

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1722	C1724	C1726	C1728	C1730
No of cores x 18AWG (7 x 26)		2	3	4	6	8
Nom. Diameter Conductor	mm	1.2	1.2	1.2	1.2	1.2
Nom. Radial Thickness Insulation	mm	0.25	0.25	0.25	0.25	0.25
Nom. Radial Thickness Sheath	mm	0.8	0.8	0.8	0.8	0.8
Nom. Overall Diameter	mm	5.0	5.3	5.7	6.7	7.2

Electrical Characteristics

BCC Part Number	Unit	C1722	C1724	C1726	C1728	C1730
No of cores x 18AWG (7 x 26)		2	3	4	6	8
Max. DC Resistance Conductor	Ω/km	22.7	22.7	22.7	22.7	22.7
Capacitance conductor to conductor	pF/m	70	65	65	60	60
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	5	5	4	3.5	3.5
Max. Operating Voltage	Vrms	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1722	C1724	C1726	C1728	C1730
No of cores x 18AWG (7 x 26)		2	3	4	6	8
Operating Temperature	°C			-25 / +75		
Max. Recommended Pulling Tension	N	200	299	399	600	797
Min. Bend Radius (install)	mm	50	53	57	67	72
Nominal Cable Weight	kg/km	34.7	45.5	56	78.4	99

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 or 8 Cores

16AWG (19x29), Flexible Bare Copper, Unscreened, HFFR Sheath

BCC Part No: C1712 – C1714 – C1716 – C1718 – C1720

BRITISH CABLES COMPANY

Applications
Multi-Conductor cables suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60754-1 & 2
IEC 61034
IEC 60332-3C
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 16AWG flexible

2. Insulation
Polyolefin
Core 1: Black
Core 2: Red
Core 3: White
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange
Core 8: Yellow

3. Ripcord

4. Sheath Material
Flame-Retardant
Halogen Free (HFFR)
Standard colour: Violet

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1712	C1714	C1716	C1718	C1720
No of cores x 16AWG (19 x 29)		2	3	4	6	8
Nom. Diameter Conductor	mm	1.4	1.4	1.4	1.4	1.4
Nom. Radial Thickness Insulation	mm	0.25	0.25	0.25	0.25	0.25
Nom. Radial Thickness Sheath	mm	0.8	0.8	0.8	0.8	0.8
Nom. Overall Diameter	mm	5.4	5.7	6.2	7.3	7.9

Electrical Characteristics

BCC Part Number	Unit	C1712	C1714	C1716	C1718	C1720
No of cores x 16AWG (19 x 29)		2	3	4	6	8
Max. DC Resistance Conductor	Ω/km	15.47	15.47	15.47	15.47	15.47
Capacitance conductor to conductor	pF/m	70	60	70	60	60
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	6.25	6.25	5	4.35	4.35
Max. Operating Voltage	Vrms	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1712	C1714	C1716	C1718	C1720
No of cores x 16AWG (19 x 29)		2	3	4	6	8
Operating Temperature	°C			-25 / +75		
Max. Recommended Pulling Tension	N	260	390	520	780	1040
Min. Bend Radius (install)	mm	54	57	62	73	79
Nominal Cable Weight	kg/km	42	55.5	70.2	98.8	126.4

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 or 8 Cores

14AWG (19x27), Flexible Bare Copper, Unscreened, HFFR Sheath

BCC Part No: C1702 – C1704 – C1706 – C1708 – C1710

BRITISH CABLES COMPANY

Applications
Multi-Conductor cables suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60754-1 & 2
IEC 61034
IEC 60332-3C
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 14AWG flexible

2. Insulation
Polyolefin
Core 1: Black
Core 2: Red
Core 3: White
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange
Core 8: Yellow

3. Ripcord

4. Sheath Material
Flame-Retardant
Halogen Free (HFFR)
Standard colour: Violet

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1702	C1704	C1706	C1708	C1710
No of cores x 14AWG (19 x 27)		2	3	4	6	8
Nom. Diameter Conductor	mm	1.8	1.8	1.8	1.8	1.8
Nom. Radial Thickness Insulation	mm	0.3	0.3	0.3	0.3	0.3
Nom. Radial Thickness Sheath	mm	0.8	0.8	0.8	0.8	0.8
Nom. Overall Diameter	mm	6.4	6.8	7.4	8.8	9.5

Electrical Characteristics

BCC Part Number	Unit	C1702	C1704	C1706	C1708	C1710
No of cores x 14AWG (19 x 27)		2	3	4	6	8
Max. DC Resistance Conductor	Ω/km	9.36	9.36	9.36	9.36	9.36
Capacitance conductor to conductor	pF/m	80	75	70	70	70
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	8	8	6.4	5.6	5.6
Max. Operating Voltage	Vrms	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1702	C1704	C1706	C1708	C1710
No of cores x 14AWG (19 x 27)		2	3	4	6	8
Operating Temperature	°C			-25 / +75		
Max. Recommended Pulling Tension	N	420	635	845	1265	1685
Min. Bend Radius (install)	mm	64	68	74	89	95
Nominal Cable Weight	kg/km	62.6	84.1	105.8	150.3	191.9

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 or 8 Cores

12AWG (19x25), Flexible Bare Copper, Unscreened, HFFR Sheath

BCC Part No: C1335 – C1337 – C1339– C1343 – C1345

BRITISH CABLES COMPANY

Applications
Screened Multi-Conductor cable suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-3-24 (was 3C)
IEC 61034
IEC 60754-1 & 2
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 12AWG flexible

2. Insulation
HFFR
Core 1: Black
Core 2: White
Core 3: Red
Core 4: Green
Core 5: Brown
Core 6: Blue
Core 7: Orange
Core 8: Yellow

3. Ripcord

5. Sheath Material
Flame-Retardant
Halogen Free (HFFR) Standard colour: Violet

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1335	C1337	C1339	C1342	C1344
No of cores x 12AWG (19 x 25)		2	3	4	6	8
Nom. Diameter Conductor	mm	2.3	2.3	2.3	2.3	2.3
Nom. Radial Thickness Insulation	mm	0.3	0.3	0.3	0.3	0.3
Nom. Radial Thickness Jacket	mm	0.8	0.8	0.8	0.8	0.8
Nom. Overall Diameter	mm	7.5	7.9	8.7	10.4	11.4

Electrical Characteristics

BCC Part Number	Unit	C1335	C1337	C1339	C1342	C1344
No of cores x 12AWG (19 x 25)		2	3	4	6	8
Max. DC Resistance Conductor	Ω/km	5.61	5.61	5.61	5.61	5.61
Max. DC Resistance Shield	Ω/km	78.5	78.5	78.5	78.5	78.5
Capacitance conductor to conductor	pF/m	190	190	190	180	176
Capacitance conductor to rest	pF/m	345	345	345	323	320
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	12	12	9.6	8.4	8.4
Max. Operating Voltage	Vrms	300	300	300	300	300

Miscellaneous

BCC Part Number	Unit	C1335	C1337	C1339	C1342	C1344
No of cores x 12AWG (19 x 25)		2	3	4	6	8
Operating Temperature	°C			-25 / +75		
Max. Recommended Pulling Tension	N	675	1015	1350	2025	2700
Min. Bend Radius (install)	mm	75	79	87	104	113
Nominal Cable Weight	kg/km	97	129.7	165.7	237.1	306.2

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 – 8 – 10 or 20 Cores

18AWG (7x26), Flexible Bare Copper, Overall Screen, UV-Resistant HFFR Sheath

BCC Part No: C1351 – C1352 – C1353 – C1354 – C1355 – C1356 – C1357

BRITISH CABLES COMPANY

Applications
Screened Multi-Conductor cable suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-3C
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 18AWG flexible

2. Insulation
Polyolefin

3. Drain Wire
24 AWG (7 x 32) Tinned Copper

4. Screen
Aluminium/Polyester 100% Coverage

5.Ripcord

6. Sheath Material
UV-resistant
Halogen Free (HFFR)
Standard Colour: Black

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1351	C1352	C1353	C1354	C1355	C1356	C1357
No of cores x 18AWG (7 x 26)		2	3	4	6	8	10	20
Nom. Diameter Conductor	mm	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Nom. Radial Thickness Insulation	mm	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Nom. Radial Thickness Sheath	mm	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Nom. Overall Diameter	mm	5.1	5.4	5.8	6.8	7.3	8.4	10.7

Electrical Characteristics

BCC Part Number	Unit	C1351	C1352	C1353	C1354	C1355	C1356	C1357
No of cores x 18AWG (7 x 26)		2	3	4	6	8	10	20
Max. DC Resistance Conductor	Ω/km	22.7	22.7	22.7	22.7	22.7	22.7	22.7
Max. DC Resistance Screen	Ω/km	78.5	78.5	78.5	78.5	78.5	78.5	78.5
Capacitance conductor to conductor	pF/m	175	150	150	150	150	160	160
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	5	5	4	3.5	3.5	3.5	3.5
Max. Operating Voltage	Vrms	300	300	300	300	300	300	300

Miscellaneous, including colour scheme

BCC Part Number	Unit	C1351	C1352	C1353	C1354	C1355	C1356	C1357
No of cores x 18AWG (7 x 26)		2	3	4	6	8	10	20
Operating Temperature	°C				-25 / +75			
Max. Recommended Pulling Tension	N	200	299	399	600	797	996	1993
Min. Bend Radius (install)	mm	51	54	58	68	73	84	107

Core	1	2	3	4	5	6	7	8	9	10
Colour	Black	Red	White	Green	Brown	Blue	Orange	Yellow	Violet	Grey
Core	11	12	13	14	15	16	17	18	19	20
Colour	Pink	Black/	Red/	Green/	Blue/	Black/	White/	Green/	Blue/	Red/
Stripe		White	White	White	White	Red	Red	Red	Red	Green

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BCC BMS-Tec™ - Multi Conductor Cables

2 – 3 – 4 – 6 – 8 – 10 or 20 Cores

16AWG (19x29), Flexible Bare Copper, Overall Screen, UV-Resistant HFFR Sheath BCC Cables Part No: C1391 – C1392 – C1393 – C1394 – C1395 – C1396 – C1397

BRITISH CABLES COMPANY

Applications
Screened Multi-Conductor cable suitable for Audio, Control, Instrumentation and Building Management Systems (BMS)

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-3C
RoHS directives

Design
1. Conductor
N x Bare Copper wire, 16AWG flexible

2. Insulation
Polyolefin

3. Drain Wire
24 AWG (7 x 32) Tinned Copper

4. Screen
Aluminium/Polyester 100% Coverage

5.Ripcord

6. Sheath Material
UV-resistant
Halogen Free (HFFR)
Standard Colour: Black

Standard Put Up Length
305 metres

Physical Characteristics

BCC Part Number	Unit	C1391	C1392	C1393	C1394	C1395	C1396	C1397
No of cores x 16AWG (19 x 29)		2	3	4	6	8	10	20
Nom. Diameter Conductor	mm	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Nom. Radial Thickness Insulation	mm	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Nom. Radial Thickness Sheath	mm	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Nom. Overall Diameter	mm	5.5	5.8	6.3	7.4	8.0	9.5	12.1

Electrical Characteristics

BCC Part Number	Unit	C1391	C1392	C1393	C1394	C1395	C1396	C1397
No of cores x 16AWG (19 x 29)		2	3	4	6	8	10	20
Max. DC Resistance Conductor	Ω/km	15.47	15.47	15.47	15.47	15.47	15.47	15.47
Max. DC Resistance Screen	Ω/km	78.5	78.5	78.5	78.5	78.5	78.5	78.5
Capacitance conductor to conductor	pF/m	170	152	165	165	165	150	150
Nominal Inductance	µH/m	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Max. Recommended Current at 25°C	Amps	6.25	6.25	5	4.4	4.4	4.4	4.4
Max. Operating Voltage	Vrms	300	300	300	300	300	300	300

Miscellaneous, including colour scheme

BCC Part Number	Unit	C1391	C1392	C1393	C1394	C1395	C1396	C1397
No of cores x 16AWG (19 x 29)		2	3	4	6	8	10	20
Operating Temperature	°C				-25 / +75			
Max. Recommended Pulling Tension	N	262	391	520	780	1040	1300	2600
Min. Bend Radius (install)	mm	55	58	63	74	80	84	107

Core	1	2	3	4	5	6	7	8	9	10
Colour	Black	Red	White	Green	Brown	Blue	Orange	Yellow	Violet	Grey
Core	11	12	13	14	15	16	17	18	19	20
Colour Stripe	Pink	Black/ White	Red/ White	Green/ White	Blue/ White	Black/ Red	White/ Red	Green/ Red	Blue/ Red	Red/ Green

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BCC BMS-Tec™ - Audio Control & Instrumentation Cables

3 Cores

Flexible Tinned Copper, Overall Screened, FR-PVC Sheath

BCC Part No: C1215 - C1225 - C1245

BRITISH CABLES COMPANY

Applications
Screened cable
Suitable for Audio, Control And Instrumentation

Sector
BCC BMS-TEC™

Standard References
(BS) EN 50290-2
IEC 60332-1
RoHS directives

Design
1. Conductor
3 x Tinned Copper wire, twisted

2. Insulation
Polyethylene
Core 1: Black
Core 2: Red
Core 3: Clear

3. Drain wire
Tinned Copper wire, 24AWG (7x32)

4. Screen
Aluminium/Polyester Foil
100% coverage

5. Sheath Material
Flame Retardant Polyvinyl Chloride (PVC)
Standard colour: Grey

Standard Put Up Length
305 metres

Cable Characteristics

BCC P/N	No Cores	Conductor Size (AWG)	Stranded Diameter (mm)	Nominal Diameter Insulation (mm)	Radial thickness Sheath (mm)	Nom. Overall Diameter (mm)
C1215	3	22(7x30)	0.75	1.6	0.6	4.9
C1245	3	20 (7x28)	0.96	1.8	0.6	5.2
C1225	3	18 (16x30)	1.2	2.15	0.7	6.2

BCC P/N	Max. Conductor Resistance (Ohm/km)	Capacitance cond to cond (pF/m)	Capacitance Cond to rest (pF/m)	Max. Current at 25°C (Amps)	Min. Insulation Resistance (MOhm*km)	Operating Voltage (Vrms)
C1215	57.4	76	135	2.9	200	300
C1245	35.75	88	176	4	200	300
C1225	22.7	75	130	5.3	200	300

BCC P/N	Weight (kg/km)	Max. Pulling Tension (Newton)	Min. Installed Bend Radius (mm)	Operating Temperature Range
C1215	31.6	110	50	-25°C to +75°C
C1245	38.7	150	55	-25°C to +75°C
C1225	56.2	220	65	-25°C to +75°C

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BCC Security-Tec™ - Coaxial Cables

Application and Construction of Coax Cables for 75 Ohm Video Systems

Application

CCTV: Closed Circuit Television is the use of video cameras to transmit a signal to a specific place, on a limited set of monitors

SMATV: Satellite Master Antenna Television used to deliver signals to multiple dwelling units (e.g., apartment buildings and trailer parks).

CATV: Central Antenna Television = Cable television is a system of providing television to consumers via radio frequency signals transmitted to televisions. Nowadays also used for internet and telephone.

HDTV: High-definition television refers to video having resolution substantially higher than traditional television systems.
Telecom and networking: a number of special cable constructions.

Basic Cable Design

Coaxial cables are designed to carry radio frequency current of a much higher frequency than the 50 or 60 Hz used in low voltage cables. And this requires special construction to prevent power losses. If an ordinary wire is used to carry high frequency currents, the wire acts as an antenna, and the high frequency currents radiate off the wire as radio waves, causing power losses. To prevent this, in coaxial cable one of the conductors is formed into a tube and encloses the other conductor. This confines the radio waves from the central conductor to the space inside the tube.

To prevent the outer conductor, or shield, from radiating, it is connected to electrical ground, keeping it at a constant potential.

The dimensions and spacing of the conductors must be uniform throughout the length of the cable. Any abrupt change in the spacing of the two conductors along the cable tends to reflect radio frequency power back toward the source. This acts as a bottleneck, reducing the amount of power reaching the destination end of the cable.

Choosing the correct 75 ohm coax cable

Most coaxial cables for video applications have a nominal impedance of 75 ohms. Their differing electrical and physical characteristics make it important to select the correct type of cable to suit the application.

Analogue TV	RG59	Acceptable performance on cable runs < 225 metres
	RG6	Gives superior performance on cable runs < 225 metres. Used for cable runs > 225 metres but < 545 metres.
	RG11	For cable runs greater than 545 metres.
CCTV	RG59	Acceptable performance on cable runs < 225 metres
	RG6	Gives for superior performance on cable runs < 225 metres. Used for cable runs > 225 metres but < 545 metres.
	RG11	For cable runs greater than 545 metres.

This table is for reference only.

BCC survey of Part Numbers.

Application	Tested	Speciality)	RG-59	RG-6	RG-11
CCTV – PVC sheath	1000 MHz	Solid conductor	C1028	C1029	C1030
CCTV – HFFR sheath	1000 MHz	Solid conductor	C1428	C1429	C1430
CCTV	1000 MHz	Flexible conductor	C1275	C1276	C1277
CATV / SMATV	3000 MHz	Dual screen	C1025	C1026	C1027
CATV / SMATV	3000 MHz	Quad screen	C1256	C1257	C1241
HDTV – PVC sheath	4500 MHz	Dual Screen 95%	C1229	C1279	C1280
HDTV – HFFR sheath	4500 MHz	Dual Screen 95%	C1378	C1379	C1380

Operating temperature range: -25 to +75 °C and Rated Voltage: 300 Vrms

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BCC Security-Tec™ - Coaxial Cables For CCTV and Video

RG-59, RG–6 and RG–11, Solid Conductor
75 Ohm Coaxial Cables for CCTV and Video
BCC Part No: C1028 – C1029 – C1030

BRITISH CABLES COMPANY

Applications
CCTV and Video

Operating Temprature
-25 to +75 °C

Max. Operating Voltage
300 Vrms

Sector
BCC-Security-TEC™
Coaxial Cables

Standard References
IEC 61196
(BS) EN 50117
(BS) EN 50290-2
RoHS directives

Design
1. Conductor
Solid Bare Copper (BC)

2. Dielectric
Foamed Polyethylene

3. Braid
Bare Copper

4. Sheath Material
Polyvinyl Chloride (PVC)

Standard Put Up Length
305 or 500 metres

Physical Characteristics

Coax Cables for CCTV and Video		RG-59 Solid Conductor	RG-6 Solid Conductor	RG-11 Solid Conductor
BCC Part Numbers		C1028	C1029	C1030
Nom. Diameter Conductor	mm	0.81	1.02	1.63
Nom. Diameter Dielectric	mm	3.71	4.60	7.11
Nom. Overall Diameter	mm	6.0	6.8	10.0
Coverage Braid	%	95	95	90
Max. Recommended Pulling Tension	N	220	310	640
Min. Bend Radius (Install)	mm	60	68	100
Nom. Cable Weight	kg/km	47.12	55.5	115.9

Electrical Characteristics (at 20°C)

Coax Cables for CCTV and Video		RG-59 Solid Conductor	RG-6 Solid Conductor	RG-11 Solid Conductor
BCC Part Numbers		C1028	C1029	C1030
Impedance	Ohm	75 ± 3	75 ± 3	75 ± 3
Max. DC Resistance Conductor	Ω/km	33.5	21.5	8.8
Max. DC Resistance Screen	Ω/km	10.1	10.8	6.5
Nominal Capacitance	pF/m	53.5	53.5	52.8
Nominal Inductance	µH/m	0.32	0.32	0.32
Velocity of Propagation	%	83	83	83
Nominal Time Delay	ns/m	3.97	3.97	3.97
Min. Return Loss 1 to 1000 MHz	dB	20	20	20

Nominal Attenuation in dB/100m

MHz	5	10	50	100	200	300	400	450	550	700	750	870	1000
RG-59	1.9	2.95	6.23	8.53	11.81	15.3	16.41	18.92	21.03	22.97	24.8	26.84	27.89
RG-6	1.78	2.36	4.92	6.56	9.51	12.43	13.78	15.14	17.15	18.37	19.73	20.26	21.96
RG-11	0.99	1.51	2.96	4.27	6.23	8.27	9.51	10.31	11.51	13.45	13.95	14.87	17.06

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BCC Security-Tec™ - Coaxial Cables For CCTV and Video

RG–6, RG–11 and RG-59, Solid Conductor
75 Ohm HFFR Coaxial Cables for CCTV and Video
BCC Part No: C1428 – C1429 – C1430

BRITISH CABLES COMPANY

Applications
CCTV and Video

Operating Temprature
-25 to +75 °C

Installation Temperature
-5 °C (Outdoor Limit)

Max. Operating Voltage
300 Vrms

Standard References
IEC 61196
(BS) EN 50117
(BS) EN 50290-2
IEC 60332-3-24 (Fire Retardant)
IEC 61034 (Low Smoke)
RoHS directives

Design
1. Conductor
Solid Bare Copper (BC)

2. Dielectric
Foamed Polyethylene

3. Braid
Bare Copper

4. Sheath Material
PVC - Cream Halogen-Free (HFFR)

Standard Put Up Length
305 or 500 metres

Physical Characteristics

Coax Cables for CCTV and Video		RG-59 Solid Conductor	RG-6 Solid Conductor	RG-11 Solid Conductor
BCC Part Numbers		C1428	C1429	C1430
Nom. Diameter Conductor	mm	0.81	1.02	1.63
Nom. Diameter Dielectric	mm	3.71	4.60	7.11
Nom. Overall Diameter	mm	6.0	6.8	10.0
Coverage Braid	%	95	95	90
Max. Recommended Pulling Tension	N	220	310	640
Min. Bend Radius (Install)	mm	60	68	100
Weight	kg/km	48.5	58.2	120

Electrical Characteristics (at 20°C)

Coax Cables for CCTV and Video		RG-59 Solid Conductor	RG-6 Solid Conductor	RG-11 Solid Conductor
BCC Part Numbers		C1428	C1429	C1430
Impedance	Ohm	75 ± 3	75 ± 3	75 ± 3
Max. DC Resistance Conductor	Ω/km	33.5	21.5	8.8
Max. DC Resistance Screen	Ω/km	10.1	10.8	6.5
Nominal Capacitance	pF/m	53.5	53.5	52.8
Nominal Inductance	µH/m	0.32	0.32	0.32
Velocity of Propagation	%	83	83	84
Nominal Time Delay	ns/m	3.97	3.97	3.97
Min. Return Loss 1 to 1000 MHz	dB	20	20	20

Nominal Attenuation in dB/100m

MHz	5	10	50	100	200	300	400	450	550	700	750	870	1000
RG-59	1.9	2.95	6.23	8.53	11.81	15.3	16.41	18.92	21.03	22.97	24.8	26.84	27.89
RG-6	1.78	2.36	4.92	6.56	9.51	12.43	13.78	15.14	17.15	18.37	19.73	20.26	21.96
RG-11	0.99	1.51	2.96	4.27	6.23	8.27	9.51	10.31	11.51	13.45	13.95	14.87	17.06

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BCC Security-Tec™ - Coaxial Cables For CCTV and Video

RG-59, RG–6 and RG–11, Flexible Conductor
75 Ohm Coaxial Cables for CCTV and Video
BCC Part No: C1275 – C1276 – C1277

BRITISH CABLES COMPANY

Applications
CCTV and Video

Operating Temprature
-25 to +75 °C

Max. Operating Voltage
300 Vrms

Sector
BCC-Security-TEC™
Coaxial Cables

Standard References
IEC 61196
(BS) EN 50117
(BS) EN 50290-2
RoHS directives

Design
1. Conductor
Flexible Bare or Tinned Copper

2. Dielectric
Foamed Polyethylene

3. Braid
Bare Copper

4. Sheath Material
Polyvinyl Chloride (PVC)

Standard Put Up Length
305 or 500 metres

Physical Characteristics

Coax Cables for CCTV and Video		RG-59 Flexible Conductor	RG-6 Flexible Conductor	RG-11 Flexible Conductor
BCC Part Numbers		C1275	C1276	C1277
Conductor Material		Tinned Copper	Bare Copper	Bare Copper
Conductor stranding	mm	19 x 0.18	19 x 0.22	19 x 0.34
Nom. Diameter Dielectric	mm	3.71	4.60	7.11
Nom. Overall Diameter	mm	6.0	6.8	10.0
Coverage Braid	%	95	95	90
Max. Recommended Pulling Tension	N	220	310	640
Min. Bend Radius (Install)	mm	60	68	100
Nom. Cable Weight	kg/km	47.12	54.66	110.0

Electrical Characteristics (at 20°C)

Coax Cables for CCTV and Video		RG-59 Flexible Conductor	RG-6 Flexible Conductor	RG-11 Flexible Conductor
BCC Part Numbers		C1275	C1276	C1277
Impedance	Ohm	75 ± 3	75 ± 3	75 ± 3
Max. DC Resistance Conductor	Ω/km	40	30	8.8
Max. DC Resistance Screen	Ω/km	10.1	10.8	6.2
Nominal Capacitance	pF/m	53.5	53.5	52.8
Nominal Inductance	µH/m	0.32	0.32	0.32
Velocity of Propagation	%	83	83	84
Nominal Time Delay	ns/m	3.97	3.97	3.97
Min. Return Loss 1 to 1000 MHz	dB	20	20	20

Nominal Attenuation in dB/100m

MHz	5	10	50	100	200	300	400	450	550	700	750	870	1000
RG-59	1.9	2.95	6.23	8.53	11.81	15.3	16.41	18.92	21.03	22.97	24.8	26.84	27.89
RG-6	1.78	2.36	4.92	6.56	9.51	12.43	13.78	15.14	17.15	18.37	19.73	20.26	21.96
RG-11	0.99	1.51	2.96	4.27	6.23	8.27	9.51	10.31	11.51	13.45	13.95	14.87	17.06

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BCC Security-Tec™ - Coaxial Cables For CCTV and Video

RG-59, RG–6 and RG–11
Sweep Tested 1 ~ 3000 MHz 75 Ohm Coaxial Cables for CATV and SMATV
BCC Part No: C1025 – C1026 – C1027

BRITISH CABLES COMPANY

Applications
CATV and SMATV

Operating Temprature
-25 to +75 °C

Max. Operating Voltage
300 Vrms

Sector
BCC-Security-TEC™
Coaxial Cables

Standard References
IEC 61196
(BS) EN 50117
(BS) EN 50290-2
RoHS directives

Design
1. Conductor
Solid Copper Covered Steel
(CCS)

2. Dielectric
Foamed Polyethylene

3.Screen
Bonded Aluminium/ Polyester foil
100% coverage

4. Braid
Aluminium

5. Sheath Material
Polyvinyl Chloride (PVC)

Standard Put Up Length
305 or 500 metres

Physical Characteristics

Coax Cables for CATV and SMATV		RG-59 3000 MHz	RG-6 3000 MHz	RG-11 3000 MHz
BCC Part Numbers		C1025	C1026	C1027
Nom. Diameter Conductor	mm	0.81	1.02	1.63
Nom. Diameter Dielectric	mm	3.71	4.60	7.11
Nom. Overall Diameter	mm	6.0	6.8	10.0
Coverage Braid	%	54	60	61
Max. Recommended Pulling Tension	N	350	560	1157
Min. Bend Radius (Install)	mm	60	68	100
Nom. Cable Weight	kg/km	32.42	41.32	86.6

Electrical Characteristics (at 20°C)

Coax Cables for CATV and SMATV		RG-59 3000 MHz	RG-6 3000 MHz	RG-11 3000 MHz
BCC Part Numbers		C1025	C1026	C1027
Impedance	Ohm	75 ± 3	75 ± 3	75 ± 3
Max. DC Resistance Conductor	Ω/km	146.5	92.2	36.5
Max. DC Resistance Screen	Ω/km	52	30	25
Nominal Capacitance	pF/m	53	53	53
Nominal Inductance	µH/m	0.32	0.32	0.32
Velocity of Propagation	%	83	83	83
Nominal Time Delay	ns/m	3.94	3.94	3.94
Min. Return Loss 1 to 1000 MHz	dB	20	20	20
Min. Return Loss 1000 to 2000 MHz	dB	18	20	20
Min. Return Loss 2000 to 3000 MHz	dB	16	20	20

Nominal Attenuation in dB/100m

MHz	5	10	50	100	200	400	550	870	1250	1750	2150	2500	3000
RG-59	2.92	3.45	5.40	8.21	12.56	16.01	19.36	24.74	30.62	36.71	40.82	44.72	48.64
RG-6	2.2	2.48	5.15	6.6	9.56	13.12	15.45	19.69	24.25	29.26	32.88	35.88	39.83
RG-11	1.25	2.03	3.75	5.01	6.85	7.05	9.65	12.6	16.66	20.28	22.93	25.12	28.08

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BCC Security-Tec™ - Coaxial Cables For CATV and SMATV

Quad Screened RG-59, RG–6 and RG–11
Sweep Tested 1 ~ 3000 MHz 75 Ohm Coaxial Cables for CATV and SMATV BCC Part No:
C1256 – C1257 – C1241

BRITISH CABLES COMPANY

Applications
CATV and SMATV

Operating Temprature
-25 to +75 °C

Max. Operating Voltage
300 Vrms

Sector
BCC-Security-TEC™
Coaxial Cables

Standard References
IEC 61196
(BS) EN 50117
(BS) EN 50290-2
RoHS directives

Design
1. Conductor
Solid Copper Covered Steel
(CCS)

2. Dielectric
Foamed Polyethylene

3. Screen
Bonded Aluminium/
Polyester foil
100% coverage

4. Braid
Aluminium
5. Screen 2
Aluminium (100% coverage)

6. Braid 2
Aluminium

7. Sheath Material
Polyvinyl Chloride (PVC)

Standard Put Up Length
305 or 500 metres

Physical Characteristics

Coax Cables for CATV and SMATV		RG-59 3000 MHz	RG-6 3000 MHz	RG-11 3000 MHz
BCC Part Numbers		C1256	C1257	C1241
Nom. Diameter Conductor	mm	0.81	1.02	1.63
Nom. Diameter Dielectric	mm	3.71	4.60	7.11
Nom. Overall Diameter	mm	6.73	7.52	10.3
Coverage Braid	%	54/46	60/40	60/40
Max. Recommended Pulling Tension	N	350	560	1157
Min. Bend Radius (Install)	mm	67	75	103
Nom. Cable Weight	kg/km	39.4	49.5	90.6

Electrical Characteristics (at 20°C)

Coax Cables for CATV and SMATV		RG-59 3000 MHz	RG-6 3000 MHz	RG-11 3000 MHz
BCC Part Numbers		C1256	C1257	C1241
Impedance	Ohm	75 ± 3	75 ± 3	75 ± 3
Max. DC Resistance Conductor	Ω/km	146.5	92.2	36.5
Max. DC Resistance Screen	Ω/km	26	17	12
Nominal Capacitance	pF/m	53	53	53
Nominal Inductance	µH/m	0.32	0.32	0.32
Velocity of Propagation	%	83	83	83
Nominal Time Delay	ns/m	3.94	3.94	3.94
Min. Return Loss 1 to 1000 MHz	dB	20	20	20
Min. Return Loss 1000 to 2000 MHz	dB	18	20	20
Min. Return Loss 2000 to 3000 MHz	dB	16	20	20

Nominal Attenuation in dB/100m

MHz	5	10	50	100	200	400	550	870	1250	1750	2150	2500	3000
RG-59	2.92	3.45	5.40	8.21	12.56	16.01	19.36	24.74	30.62	36.71	40.82	44.72	48.64
RG-6	2.2	2.48	5.15	6.6	9.56	13.12	15.45	19.69	24.25	29.26	32.88	35.88	39.83
RG-11	1.25	2.03	3.75	5.01	6.85	7.05	9.65	12.6	16.66	20.28	22.93	25.12	28.08

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BCC Security-Tec™ - Coaxial Cables For HDTV

RG–6, RG–11 and RG-59 Cables

Sweep Tested 1 ~ 4500 MHz 75 Ohm PVC Coaxial Cables for HDTV

BCC Part No: C1229 – C1279 – C1280

BRITISH CABLES COMPANY

Applications
HDTV

Operating Temprature
-25 to +75 °C

Max. Operating Voltage
300 Vrms

Standard References
IEC 61196
(BS) EN 50117
(BS) EN 50290-2
IEC 60332-1-2
RoHS directives

Design
1. Conductor
Solid Bare Copper

2. Dielectric
Foamed Polyethylene

3. Screen
Bonded Aluminium/
Polyester foil
100% coverage

4. Braid
Tinned Copper

5. Sheath Material
Polyvinyl Chloride (PVC)
Colour: Orange

Standard Put Up Length
305 or 500 metres

Physical Characteristics

Coax Cables for HDTV		RG-59 4.5 GHz	RG-6 4.5 GHz	RG-11 4.5 GHz
BCC Part Numbers		C1229	C1279	C1280
Nom. Diameter Conductor	mm	0.81	1.02	1.63
Nom. Diameter Dielectric	mm	3.71	4.60	7.11
Nom. Overall Diameter	mm	6.0	6.8	10.0
Coverage Braid	%	95	95	95
Max. Recommended Pulling Tension	N	210	310	640
Min. Bend Radius (Install)	mm	60	68	100
Weight	kg/km	48.2	59	117

Electrical Characteristics (at 20°C)

Coax Cables for HDTV		RG-59 4.5 GHz	RG-6 4.5 GHz	RG-11 4.5 GHz
BCC Part Numbers		C1229	C1279	C1280
Impedance	Ohm	75 ± 3	75 ± 3	75 ± 3
Max. DC Resistance Conductor	Ω/km	33.5	21.5	8.8
Max. DC Resistance Screen	Ω/km	12.5	10.6	6.6
Nominal Capacitance	pF/m	53	53	53
Nominal Inductance	µH/m	0.32	0.32	0.32
Velocity of Propagation	%	83	83	83
Nominal Time Delay	ns/m	3.94	3.94	3.94
Min. Return Loss 1 to 1000 MHz	dB	23	23	23
Min. Return Loss 1000 to 2000 MHz	dB	22	22	22
Min. Return Loss 2000 to 3000 MHz	dB	16	16	16
Min. Return Loss 3000 to 4500 MHz	dB	15	15	15

Nominal Attenuation in dB/100m

MHz	1	5	10	50	100	300	550	750	1000	2000	3000	4500	3000
RG-59	0.98	2.07	2.95	6.23	7.55	13.68	18.83	22.23	25.96	38.24	46.13	56.50	48.64
RG-6	0.79	1.71	2.33	4.57	6.40	11.96	15.76	18.05	21.36	31.44	39.76	50.46	39.83
RG-11	0.53	1.12	1.51	2.96	4.20	7.49	10.41	12.38	14.57	21.84	27.93	35.98	28.08

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BCC Security-Tec™ - Coaxial Cables For HDTV

RG–6, RG–11 and RG-59 Cables

Sweep Tested 1 ~ 4500 MHz 75 Ohm HFFR Coaxial Cables for HDTV

BCC Part No: C1378 – C1379 – C1380

BRITISH CABLES COMPANY

Applications
HDTV

Operating Temprature
-25 to +75 °C

Max. Operating Voltage
300 Vrms

Standard References
IEC 61196
(BS) EN 50117
(BS) EN 50290-2
IEC 60332-3-24 (Fire Retardant)
IEC 61034 (Low Smoke)
RoHS directives

Design
1. Conductor
Solid Bare Copper

2. Dielectric
Foamed Polyethylene

3.Screen
Bonded Aluminium/
Polyester foil
100% coverage

4. Braid
Tinned Copper

5. Sheath Material
Halogen-Free (HFFR)
Colour: Orange

Standard Put Up Length
305 or 500 metres

Physical Characteristics

Coax Cables for HDTV		RG-59 4.5 GHz	RG-6 4.5 GHz	RG-11 4.5 GHz
BCC Part Numbers		C1378	C1379	C1380
Nom. Diameter Conductor	mm	0.81	1.02	1.63
Nom. Diameter Dielectric	mm	3.71	4.60	7.11
Nom. Overall Diameter	mm	6.0	6.8	10.0
Coverage Braid	%	95	95	95
Max. Recommended Pulling Tension	N	210	310	640
Min. Bend Radius (Install)	mm	60	68	100
Weight	kg/km	48.2	59	117

Electrical Characteristics (at 20°C)

Coax Cables for HDTV		RG-59 4.5 GHz	RG-6 4.5 GHz	RG-11 4.5 GHz
BCC Part Numbers		C1229	C1279	C1280
Impedance	Ohm	75 ± 3	75 ± 3	75 ± 3
Max. DC Resistance Conductor	Ω/km	33.5	21.5	8.8
Max. DC Resistance Screen	Ω/km	12.5	10.6	6.6
Nominal Capacitance	pF/m	53	53	53
Nominal Inductance	µH/m	0.32	0.32	0.32
Velocity of Propagation	%	83	83	83
Nominal Time Delay	ns/m	3.94	3.94	3.94
Min. Return Loss 1 to 1000 MHz	dB	23	23	23
Min. Return Loss 1000 to 2000 MHz	dB	22	22	22
Min. Return Loss 2000 to 3000 MHz	dB	16	16	16
Min. Return Loss 3000 to 4500 MHz	dB	15	15	15

Nominal Attenuation in dB/100m

MHz	1	5	10	50	100	300	550	750	1000	2000	3000	4500
RG-59	0.98	2.07	2.95	6.23	7.55	13.68	18.83	22.23	25.96	38.24	46.13	56.50
RG-6	0.79	1.71	2.33	4.57	6.40	11.96	15.76	18.05	21.36	31.44	39.76	50.46
RG-11	0.53	1.12	1.51	2.96	4.20	7.49	10.41	12.38	14.57	21.84	27.93	35.98

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BCC Industrial-Tec™ - Defence Standard Cables

Defence Standard 61-12 Parts 4 & 5

Application

Originally developed for military use, these flexible multi-conductor cables are now widely used within the industry. They are designed for high density wiring between and within instruments and electronic equipment and/or components and especially used in process control systems, computers, data processors, sound systems and of course in military equipment.

Main Standard

Defence standard 61-12, part 4 and 5.

Basic Construction of the cables

Wire= Conductor with Insulation.

Conductor: flexible = stranded tinned copper wires.

Insulation: PVC (Polyvinyl Chloride). Good strippable and coloured insulation. The colours are not interchangeable.

Cable core: two or more wires, stranded.

Size	mm2	0.055	0.22	0.5
Configuration	mm	7 x 0.1	7 x 0.2	16 x 0.20
Max. DC Resistance	Ω/km	345	86.2	37.7
Max. recommended current	Amps	0.25	1	2.5
Rated Voltage	Vrms	250	440	440

Colour scheme:

Core No.	Color	Core No.	Color	Core No.	Color	Core No.	Color
1	Red	11	Turquoise	21	BLUE/Black	31	WHITE/Brown
2	Blue	12	GREY	22	ORANGE/Blue	32	BROWN/Black
3	Green	13	RED/Blue	23	GREEN/Blue	33	GREY/Brown
4	Yellow	14	GREEN/Red	24	GREY/Blue	34	YELLOW/Violet
5	White	15	YELLOW/Red	25	YELLOW/Green	35	VIOLET/Black
6	Black	16	WHITE/Red	26	WHITE/Green	36	WHITE/Violet
7	Brown	17	RED/Black	27	GREEN/Black	50	Special scheme, on request available
8	Violet	18	RED/Brown	28	ORANGE/Green		
9	Orange	19	YELLOW/Blue	29	GREY/Green		
10	Pink	20	WHITE/Blue	30	YELLOW/Brown		

Drain wire (only in combination with a screen): twisted (= flexible) tinned copper wires.

Screen (if applicable): Braiding of tinned copper wires, coverage 91%.

Sheath: Grey PVC.

Flame Retardancy: IEC 60332-1 (Vertical Wire test).

Operating temperature range: -20 to +70 °C.

Non-standard cable constructions, colours, details and/or additional information are available on request. For more details, please see the respective detailed datasheet(s). Please note that technical specifications are subject to change without notice.

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BCC Industrial-Tec™ - Defence Standard Cables

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Cable description

1. Conductor
Stranded tinned copper

2. Insulation
PVC

3. Cable core
Two or more wires stranded

4. Screen (if required)
Tinned copper 91% coverage

5. Ripcord
Aluminium/Polyester foil
100% coverage

6. Sheath Material
Flame-Retardant
Polyvinyl Chloride (PVC)
Standard colour: Grey

Standard put up length
305 metres

Standard references
DEF standard 61-12, part 4 & 5
IEC 60332-1
RoHS directives

Conductor 7 x 0.1 mm = 0.055 mm²

No of wires	BCC Part Number	Screen	Diameter (mm)	BCC Part Number	Screen	Diameter (mm)
2	C1164	Yes	3.2	C1360	No	2.3
3	C1165	Yes	3.6	C1361	No	2.4
4				C1362	No	2.6
6	C1166	Yes	4.2	C1144	No	3.1
9				C1145	No	3.7
15				C1146	No	4.2
25	C1168	Yes	6.3	C1147	No	5.5
36	C1169	Yes	6.9	C1148	No	6.1
50	C1365	Yes	8.0	C1364	No	7.2

Conductor 7 x 0.2 mm = 0.22 mm²

No of wires	BCC Part Number	Screen	Diameter (mm)	BCC Part Number	Screen	Diameter (mm)
2				C1366	No	3.4
3				C1367	No	3.6
4	C1471	Yes	4.4	C1368	No	3.9
6	C1472	Yes	5.6	C1369	No	4.6
8	C1473	Yes	6.1	C1154	No	5.6
12	C1474	Yes	6.9	C1155	No	6.1
20	C1475	Yes	8.6	C1156	No	7.8
36	C1476	Yes	10.8	C1157	No	9.8

Conductor 16 x 0.2 mm = 0.5 mm²

No of wires	BCC Part Number	Screen	Diameter (mm)	BCC Part Number	Screen	Diameter (mm)
2				C1158	No	5.5
3				C1370	No	5.8
4	C1177	Yes	7.3	C1371	No	6.3
6	C1178	Yes	8.3	C1372	No	7.3
12	C1375	Yes	10.5	C1373	No	9.5
18	C1180	Yes	12.0	C1374	No	11.0

For more details, please see the respective detailed datasheet(s)

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BCC Industrial-Tec™ - Control Cables

Application and Construction

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Application
These cables are commonly used as interconnecting cables to control, measure and regulate processor aided production within the industry and also as flexible power control cables suitable for robotic and automated equipment.

Main Standard
VDE 0250/VDE 0255

Conductor Size	mm2	0.75	1.0	1.5	2.5	4	6
Conductor material	Bare copper						
Configuration	mm	24x0.2	32x0.2	30x0.24	50x0.24	56x0.29	84x0.29
Max. DC Resistance at 20°C	Ω/km	27	20.2	14	8.4	4.95	3.3

Insulation: Flame Retardant PVC (Polyvinyl Chloride). Insulation Resistance > 500 MΩ/km. Good strippable insulation.

Conductor Size	mm2	0.75	1.0	1.5	2.5	4	6
Radial thickness insulation	mm	0.5	0.5	0.4	0.5	0.8	0.7

Cable core: three or more wires stranded. In case of 5 wires with a central filler.

Colour scheme: Green/yellow - black with printed numbers.

Collective Screen (CY series): braiding of tinned copper wires with a coverage of 70%.

Bedding (SY series): Flame Retardant PVC.

Armour (SY series): galvanised steel wires.

Sheath: Flame Retardant PVC.

Flame Retardancy: IEC 60332-1 (Vertical Wire test).

Basic Construction of the cables

Wire= Conductor with Insulation.

Conductor: flexible = stranded tinned copper wires.

Operating temperature range: -20 to +70 °C.

Rated Voltage: 300 V.

Cable Types:
YY series: three or more stranded cores, surrounded by a PVC sheath.

CY series: as YY series plus a collective screen between cable core and PVC sheath.

SY series: as YY series plus a Steel Wire Armouring between cable core and transparent PVC sheath.

Non-standard cable constructions, colours, details and/or additional information are available on request. For more details, please see the respective detailed datasheet(s).
Please note that technical specifications are subject to change without notice.

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YY Series: Cable core of stranded cores surrounded by a PVC sheath

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No of wires	BCC Part Number	Conductor (mm² / mm)	Diameter (mm)	BCC Part Number	Conductor (mm² / mm)	Diameter (mm)
3	C1631	0.75 / 24x0.2	5.6	C1632	1.0 / 32X0.2	6.2
4	C1635	0.75 / 24x0.2	6.6	C1636	1.0 / 32X0.2	7.1
12	C1645	0.75 / 24x0.2	10.4			
18	C1648	0.75 / 24x0.2	12.4			

No of wires	BCC Part Number	Conductor (mm² / mm)	Diameter (mm)	BCC Part Number	Conductor (mm² / mm)	Diameter (mm)
3	C1633	1.5 / 30X0.24	6.5	C1634	2.5 / 50X0.24	6.5
4	C1637	1.5 / 30X0.24	7.6	C1638	2.5 / 50X0.24	9.1
5	C1639	1.5 / 30X0.24	8.4	C1640	2.5 / 50X0.24	10.3
7	C1641	1.5 / 30X0.24	9.5	C1642	2.5 / 50X0.24	11.8
8	C1643	1.5 / 30X0.24	10.4	C1644	2.5 / 50X0.24	12.6
12	C1646	1.5 / 30X0.24	12.4	C1647	2.5 / 50X0.24	14.9
18	C1649	1.5 / 30X0.24	14.5	C1650	2.5 / 50X0.24	14.5

CY Series: Cable core of stranded cores surrounded by a braiding of tinned copper wires plus a PVC sheath

No of wires	BCC Part Number	Conductor (mm² / mm)	Diameter (mm)	BCC Part Number	Conductor (mm² / mm)	Diameter (mm)
3	C 1620	0.75 / 24x0.2	6.0	C1621	1.0 / 32X0.2	6.4
4	C1624	0.75 / 24x0.2	6.7	C1625	1.0 / 32X0.2	7.0

No of wires	BCC Part Number	Conductor (mm² / mm)	Diameter (mm)	BCC Part Number	Conductor (mm² / mm)	Diameter (mm)
3	C1622	1.5 / 30X0.24	6.8	C1623	2.5 / 50X0.24	8.0
4	C1626	1.5 / 30X0.24	7.6	C1627	2.5 / 50X0.24	9.0
5	C1628	1.5 / 30X0.24	8.2	C1629	2.5 / 50X0.24	9.8

For more details, please see the respective detailed datasheet(s)

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SY Series: Cable core of stranded cores surrounded by a bedding, a Steel Wire Armouring plus a PVC sheath

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No of wires	BCC Part Number	Conductor (mm² / mm)	Diameter (mm)	BCC Part Number	Conductor (mm² / mm)	Diameter (mm)
3	C1655	0.75 / 24x0.2	7.8	C1658	2.5 / 50x0.24	
4				C1662	2.5 / 50x0.24	

No of wires	BCC Part Number	Conductor (mm² / mm)	Diameter (mm)	BCC Part Number	Conductor (mm² / mm)	Diameter (mm)
2	C1651	1.0 / 32X0.2	8.2	C1652	1.5 / 30x0.24	9.4
3	C1656	1.0 / 32X0.2	8.2	C1657	1.5 / 30x0.24	9.4
4	C1660	1.0 / 32X0.2	8.2	C1661	1.5 / 30x0.24	9.4
5	C1665	1.0 / 32X0.2	10.6	C1666	1.5 / 30x0.24	11.2
6				C1668	1.5 / 30x0.24	12.3
7	C1669	1.0 / 32X0.2	11.7	C1670	1.5 / 30x0.24	12.4
12	C1671	1.0 / 32X0.2	13.8	C1672	1.5 / 30x0.24	14.3
18	C1673	1.0 / 32X0.2	15.8	C1674	1.5 / 30x0.24	16.8
25	C1675	1.0 / 32X0.2	19.7			

No of wires	BCC Part Number	Conductor (mm² / mm)	Diameter (mm)	BCC Part Number	Conductor (mm² / mm)	Diameter (mm)
3	C1659	4.0 / 56x0.29	13.4			
4	C1663	4.0 / 56x0.29	13.4	C1664	6.0 / 84x0.29	16.0

For more details, please see the respective detailed datasheet(s)

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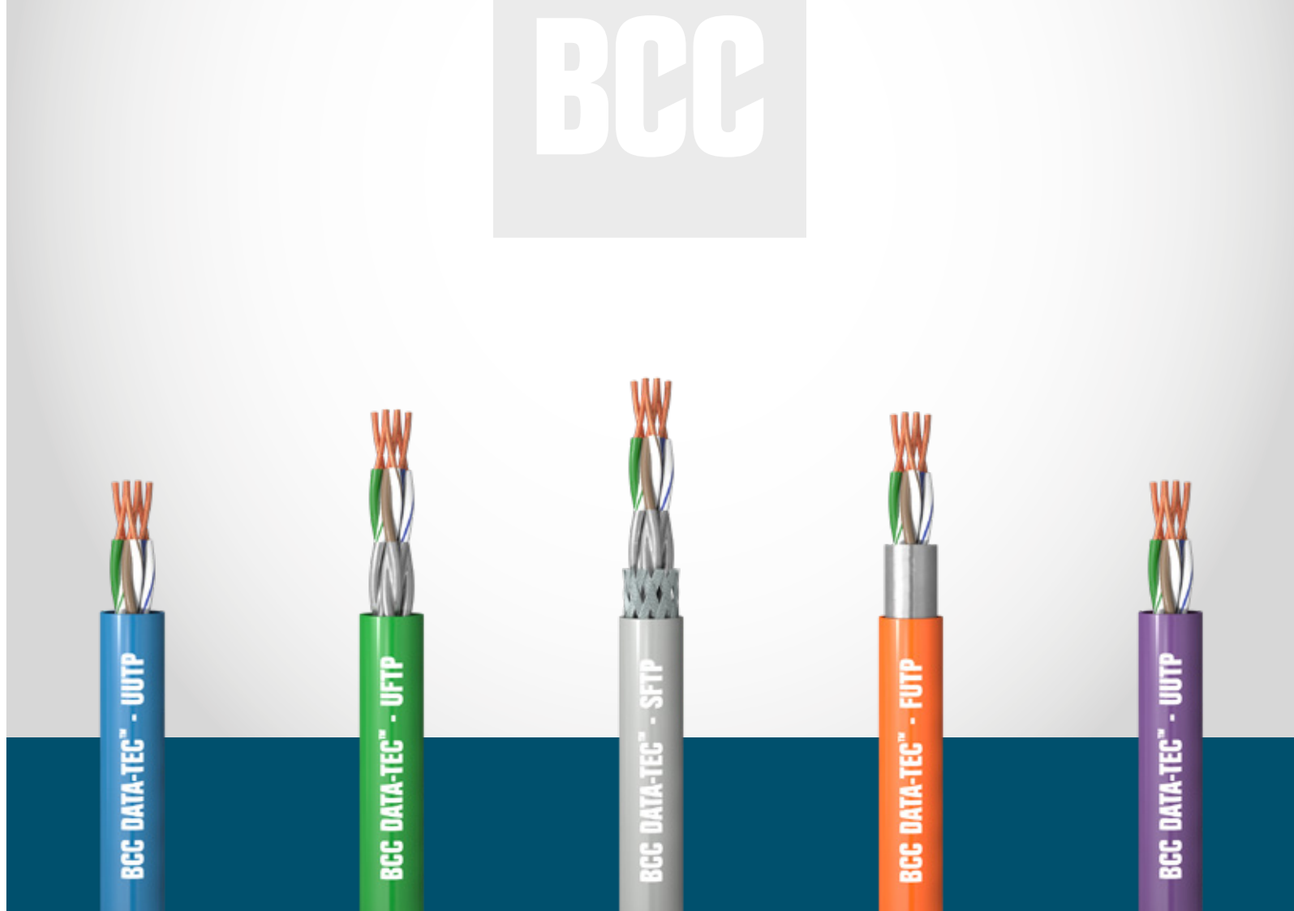
Section 4
BCC NetSys-Solutions™



BCC NetSys-Opt™

Optical Fibre Stuctured Cabling Systems

Fibre Module

BCC NetSys-Opt™ Cabling System

BRITISH CABLES COMPANY

Product summary

BCC NetSys Fibre Modules offer ‘fibre to the desk’ and bring the exceptional benefits of fibre optics to LANs.

The range of LC, SC and FC/PC outlets can be integrated with BCC NetSys Enhanced Category 5, Category 6, Category 6A and Voice Modules to give a versatile range of outlet configurations. They can also be fitted into BCC NetSys single or dual gang faceplates to give fibre optics a traditional look.

Features & benefits

- Fibre to the desk
- Interchangeable with other BCC NetSys modules and 1⁄4 blanks
- Individually QA tested
- Manufactured in the UK

Item	Specification
Width (mm)	25
Depth (mm)	35
Height (mm)	50
Back box depth	Minimum 24mm recommended
Material	BS thermoplastic resin, with grade UL94 VO at 1.5mm flame retardant
Finish	High gloss

Part no	Description
29-LCAM	LC Angled BCC NetSys Module
29-SCAM	SC Angled BCC NetSys Module
29-FCPCAM	FC/PC Angled BCC NetSys Module
Please note, these are not Euro size and only fit the following faceplates:	
51-1G2MSF	Standard Single Gang BCC NetSys Faceplate
51-2G4MSF	Standard Dual Gang BCC NetSys Faceplate
51-1G2MCF	Compact Single Gang BCC NetSys Faceplate
51-2G4MCF	Compact Dual Gang BCC NetSys Faceplate
51-1G2MEF	Standard Elite Single Gang BCC NetSys Faceplate
51-2G4MEF	Standard Elite Dual Gang BCC NetSys Faceplate
51-1G2MCEF	Compact Elite Single Gang BCC NetSys Faceplate
51-FPB025	BCC NetSys Quarter Blank

Sliding Patch Panel

BCC NetSys-Opt™ Cabling System

Product summary

The BCC NetSys range of sliding patch panels are available with a wide range of adaptor types and populations. The panels are manufactured from mild steel and are finished in a black powder coating. The panels feature fully adjustable mounting brackets, numbered adaptor ports and a range of panel knock-outs to suit common gland sizes. The panels include a sliding tray for easy access to splices.

Panels are supplied fully loaded and complete with splice management. Unloaded versions and other connector styles are available upon request.

Features & benefits

- Easy access to splices from the front of the rack
- LC, SC & ST versions available
- High quality rigid mild steel construction
- Rear cable gland knock outs
- Adjustable mounting brackets for flush or recessed fitting
- Fibre management kits included

Item	Specification
Width (mm)	483mm (19")
Depth (mm)	200
Height	1u (44mm)
Weight	2.8kg (fully loaded)
Colour B	lack (RAL9004)
Cable entry gland holes	4 x 10mm and 2 x 20mm

Part no	Description
29-XX-SPDLCMM	Sliding Panel Duplex LC Multimode
29-XX-SPQLCMM	Sliding Panel Quad LC Multimode
29-XX-SPDLCSM	Sliding Panel Duplex LC Singlemode
29-XX-SPQLCSM	Sliding Panel Quad LC Singlemode
29-XX-SPDSCMM	Sliding Panel Duplex SC Multimode

XX can be replaced with the below to denote quantity

For other Connector types replace SC with LC, ST or FC

4 Duplex = 04	16 Duplex = 16 1	16 Quad = 64
8 Duplex = 08	24 Duplex = 24	18 Quad = 72
12 Duplex = 12	12 Quad = 48	24 Quad = 96

Pro Patch Panel

BCC NetSys-Opt™ Cabling System

Product summary

The BCC NetSys pro patch panel is available with a wide range of adaptor types and populations. The panel features fully adjustable, heavy duty mounting brackets, numbered adaptor ports and pre-moulded cable entries. The panel includes a high grade sliding tray for easy access to the splice tray, and comes with both side and front Cable management to keep equipment organised. The panel features a completely sealed front lid which can be opened and closed by small latches located either side.

Panels are supplied fully loaded and complete with splice management. Unloaded versions and other connector styles are available upon request.

Features & benefits

- Pro Panels can be supplied fully loaded with pigtails
- Customised fronts available
- Front and side Cable management
- High grade sliding panels
- Heavy duty profile brackets
- Port identification
- High grade cable clamping
- Easy access pre-moulded cable entry
- Designation label and core management splice tray for organised networking

Item	Specification
Width (mm)	538.1
Depth (mm)	300
Height (mm)	31.8
Colour	Black

Part no	Description
29-XX-PPD-LCSM	LC Singlemode Duplex
29-XX-PPS-SCSM	SC Singlemode Simplex
29-XX-PPD-SCSM	SC Singlemode Duplex
29-XX-PPS-FCSM	FC Singlemode Simplex
29-XX-PPS-STSM	ST Singlemode Simplex
29-XX-PPD-LCMM	LC Multimode Duplex
29-XX-PPD-SCMM	SC Multimode Duplex
29-XX-PPS-SCMM	SC Multimode Simplex
29-XX-PPS-STMM	ST Multimode Simplex

XX can be replaced with the below to denote quantity

2 Way = 2W	8 Way = 8W	16 Way = 16W
4 Way = 4W	12 Way = 12W	24 Way = 24W

Break Out Boxes

BCC NetSys-Opt™ Cabling System

Product summary

The BCC NetSys range of wall mountable break out boxes are designed to provide a cost effective method of patching or splicing in situations where equipment racks or cabinets are not available. The break out boxes are available in tough and lightweight ABS or mild steel for more demanding situations.

The boxes can be supplied fully loaded with all common adaptors including LC, SC, ST, SMA, FC, FDDI and ESCON types. They are supplied in a number of popular formats including 1in/1out, 1in/2out and 2in/2out. We provide a custom machining service enabling us to supply any other splice box configuration or hybrid enclosures on very short lead times.

All enclosures are offered with full fibre/splice management kit options and are available from stock.

Features & benefits

- Tough construction
- Patch, splice or hybrid versions
- Wall mountable
- Available with fibre/splice management kits
- Custom machining service
- Low cost
- Stock availability

Item	Specification
Dimensions	180mm x 140mm x 80mm (ST & FC) 100mm x 100mm x 40mm (LC & SC)
Material	ABS (ST & FC) or mild steel (LC & SC)
Colour	Light Grey

Part no	Description
24-LC-XX-BO	LC Break Out Box
24-SC-XX-BO	SC Loaded Steel Break Out Box
24-FC-XX-BO	FC Break Out Box
24-SMA-XX-BO	SMA Break Out Box
24-1GI-10-BO	1 Gland In/1 Out Break Out Box
24-1GI-20-BO	1 Gland In/2 Out Break Out Box
24-2GI-20-BO	2 Glands In/2 Out Break Out Box
24-2GSE-BO	2 Glands Same End Break Out Box

XX can be replaced with the below to denote quantity

4 Way = 04	12 Way = 12
8 Way = 08	16 Way = 16

Lockable Wall Mounted Enclosure

BCC NetSys-Opt™ Cabling System

Product summary

The BCC NetSys Lockable Wall Box provides an ideal solution for secure patching in any location where a cabinet or other suitable enclosure is not available.

Manufactured from 1.5mm mild steel, the enclosure features two doors with different locks and an interchangeable internal panel which is available for a wide range of adaptor types. Cable entry and patchcord exit is from the top or the bottom of the unit. Four knockouts are provided (top and bottom) to suit common cable gland sizes.

The enclosure can be supplied loaded or unloaded and with optional fibre/splice management kits.

*Unless specified the ST loaded wall boxes are fitted with one door.

Features & benefits

- High quality welded steel construction
- Two doors with different locks (SC version only)
- Internal panels available for SC, ST, FC, FDDI and ESCON
- Supplied unloaded or loaded with adaptors
- Four cable entry knock-outs on top and bottom
- Patchcord exit from top or bottom
- Custom colour and silk screen service
- Fibre management kits available

Part no	Description
24-LMWE-SC-16W	Lockable Wall Mounted SC 16 Way Enclosure
24-LMWE-SC-24W	Lockable Wall Mounted SC 24 Way Enclosure
24-LMWE-SC-36W	Lockable Wall Mounted SC 36 Way Enclosure
24-LMWE-ST-16W	Lockable Wall Mounted ST 16 Way Enclosure
24-LMWE-ST-24W	Lockable Wall Mounted ST 24 Way Enclosure
24-LMWE-ST-36W	Lockable Wall Mounted ST 36 Way Enclosure
24-LMWE-SC-UL36	SC (1-36 Way) Lockable Enclosure - Unloaded
24-LMWE-ST-UL36	ST (1-36 Way) Lockable Enclosure - Unloaded

72 Fibre Internal Double Door Lockable Break Out Box

BCC NetSys-Opt™ Cabling System

BRITISH CABLES COMPANY

Product summary

The BCC NetSys lockable internal wall box system is supplied unloaded ready for the installer to load with their choice of adaptors, or can be pre-loaded with adaptors and pigtails ready for installation.

With the ability to use a full array of adaptor types, this wall box offers a flexible solution to the end user, enabling them to incorporate a multi functional wall mounted box which allows easy access during installation or rework with no disturbance of existing cable or fibres.

In addition to the array of adaptors the box also offers multiple cable entry and exit solutions: up to 8 standard entry points for loose tube, tight buffered, pre-terminated, steel tape armoured cable and 2 slotted positions for patch cord exit.

Features & benefits

- Up to 144 fibres
- Multiple adaptor options available
- 72 adaptor positions
- Integrated bend radius protection
- Lockable doors
- Top and/or bottom cable entry

Applications

- Data centres, premise installations, telecommunication networks
- Ethernet, Fibre Channel, ATM, LAN, MAN and WAN
- For use in multi dwelling units or as demarcation points
- Indoor applications

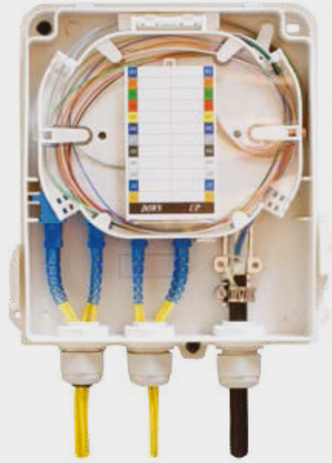
Part no	Description
24-L72FUL-BO	72 Fibre Unloaded Lockable Breakout Box

Item	Specification
Height (mm)	260
Width (mm)	360
Depth (mm)	120
Net weight	7.5kg
Packed weight	8kg
Packaged dimensions	420mm x 400mm x 130mm
IP rating	IP20
Suitable for adaptor type	MTRJ, SC Simplex, LC Duplex, E2000
Cable entry	20mm x 4 25mm x 4
Material	Cold Rolled Steel
Material thickness	1.2mm
Material coating	Grey Electro Static Powder Coating (RAL 7035)
Operating temperature	-40°C to +50°C
Designed in accordance with	TIA/EIA 568.C, ISO/IEC 11801 EN50173, IEC60304, IEC61754, EN297-1
Compliant to	RoHS, Reach/SVHC

72 Fibre Internal Double Door Lockable Break Out Box

BCC NetSys-Opt™ Cabling System

BRITISH CABLES COMPANY



Product summary

This IP65 distribution box offers the ability to terminate 8 fibres housed in a robust ABS enclosure for indoor and outdoor applications. With the ability to use a full array of adaptor types offering a flexible solution to the end user, enabling them to incorporate a multi-functional enclosure which allows easy access during installation or re-work with no disturbance of the existing cable or fibres.

In addition to the array of adaptors the enclosure also offers up to 8 exit points for patching cables and 1 standard cable entry points for loose tube, tight buffer, pre-terminated and steel tape armoured cable. Each enclosure has integrated strength member tie positions and bend radius protection with the addition of a removable front door allowing for quick and easy installation.

Features & benefits

- Up to 8 fibres
- Removable splice tray for easy installation
- Multiple adaptor options available
- 8 adapter positions
- Accepts loose tube, distribution and pre-terminated cables
- Integrated bend radius protection
- Sealing glands for up to 8 cables
- Removable door for ease of installation
- Supplied with 12 heatshrink splice protectors
- Supplied with transit tubing
- Supplied with wall fixings and tie wraps

Applications

- Data centres, premise installations, telecommunication networks
- Ethernet, Fibre Channel, ATM, LAN, MAN and WAN
- Data communication and telecommunication networks
- Indoor applications

Item	Specification
Heght (mm)	210
Width (mm)	175
Depth (mm)	50
Net weight	404g
Packed weight	460g
Packaged dimensions	215mm x 182mm x 51mm
IP rating	IP65
Suitable for adaptor type	SC Simplex, LC Duplex
Number of fibres	8
Number of ports	8
Cable entry	20mm x 1
Cable exit	20mm x 2
Material	White ABS
Operating temperature -	-40°C to +50°C
Designed in accordance with	TIA/EIA 568.C, ISO/IEC 11801 EN50173, IEC60304, IEC61754, EN297-1
Compliant to	RoHS, Reach/SVHC

Part no	Description
24-8F-IE-BO	8 Fibre Internal/External Break Out Box

12 Fibre Internal/External Break Out Box

BCC NetSys-Opt™ Cabling System

BRITISH CABLES COMPANY

Product summary

This lockable IP65 distribution box offers the ability to terminate 12 fibres housed in a robust ABS enclosure for indoor and outdoor applications. With the ability to use a full array of adaptor types offering a flexible solution to the end user, enabling them to incorporate a multi-functional enclosure which allows easy access during installation or re-work with no disturbance of the existing cable or fibres.

In addition to the array of adaptors the enclosure also offers up to 12 exit points for patching cables and a standard cable entry point for loose tube, tight buffer, pre-terminated and steel tape armoured cable. Each enclosure has integrated strength member tie positions and bend radius protection with the addition of a removable front door allowing for quick and easy installation.

Features & benefits

- Removable splice tray for easy installation
- Multiple adaptor options available
- 6 adapter positions
- Accepts loose tube, distribution and pre-terminated cables
- Integrated bend radius protection
- Sealing glands for up to 12 cables
- Lockable Door
- Removable door for ease of installation
- Supplied with 12 heatshrink splice protectors
- Supplied with transit tubing
- Supplied with wall fixings and tie wraps

Applications

- Data centres, premise installations, telecommunication networks
- Ethernet, Fibre Channel, ATM, LAN, MAN and WAN
- Data communication and telecommunication networks
- Indoor applications

Item	Specification
Height (mm)	258
Width (mm)	186
Depth (mm)	61
Net weight	797g
Packed weight	875g
Packaged dimensions	275mm x 197mm x 65mm
IP rating	IP65
Suitable for adaptor type	SC Simplex, LC Duplex
Number of fibres	12
Number of ports	6
Cable entry	20mm x 1
Cable exit	20mm x 2
Material	Grey ABS (RAL 7035)
Operating temperature -	-40°C to +50°C
Designed in accordance with	TIA/EIA 568.C, ISO/IEC 11801 EN50173, IEC60304, IEC61754, EN297-1
Compliant to	RoHS, Reach/SVHC

Part no	Description
24-12F-IE-BO	12 Fibre Internal/External Break Out Box

External Mast Box

BCC NetSys-Opt™ Cabling System

BRITISH CABLES COMPANY

Product summary

The BCC NetSys lockable IP65 distribution box offers the ability to terminate 24 fibres housed in a robust aluminium enclosure with a separate section for power distribution. These enclosures have been designed with a life expectancy of 25 years; and have been tried and tested as approved enclosures within the highways network since 2006.

Power and fibre circuits covered using clear polycarbonate plate to reduce risk of water ingress if opened during damp weather. Circuits can still be viewed via clear polycarbonate window. Unit can be either pole or wall mounted.

Features & benefits

- 2 Keyed pull locks
- Door pulls door down onto rubber seal
- Design independently tested to IP65
- The Alocrom pre treatment prevents galvanic process to defence standards
- Incoming fibre via 24 way MTP connection
- Internal fibre distribution via 24 way pre-terminated breakout cable
- External fibre distribution via per determined quantity of IP65 17-300010
- Power input/output via IP65 rated nylon glands
- Power Distribution via IP65 WA22K4Z2
- 100A 2 pole switch on incoming cable
- Internal Power distribution via IP20 rated screw terminals
- Circuits protected via 10-off single pole 16A MCBs

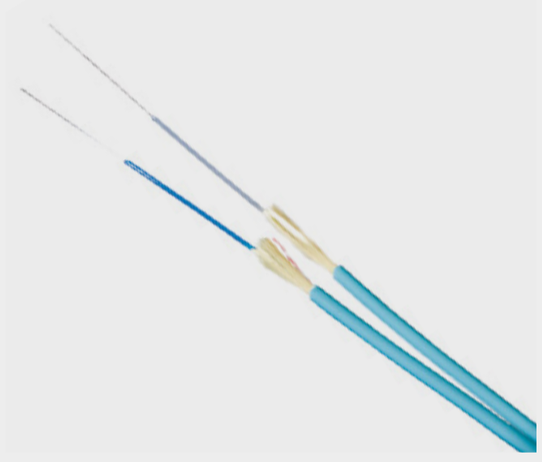
Item	Specification
IP rating:	IP65
Hinges:	304 stainless steel
Screws and fittings:	Stainless steel
Casing:	2mm Aluminium
Finish:	Alocorom1200 and Powder Coating
Internal wiring (pre MCBs):	16mm2 tri rated cables
Internal wiring (post MCBs):	2.5mm2
Earth bonding points:	8mm Internal and External
Dimensions (6+2 without brackets)	350 x 275 x 210mm
Dimensions (8+2 without brackets)	450 x 275 x 210mm

Part no	Description
24-EMB-6+2-FMP	MTP Fibre Mast Box 6+2
24-EMB-8+2-FMP	MTP Fibre Mast Box 8+2

Duplex Zip Twin Cable

BCC NetSys-Opt™ Cabling System

BRITISH CABLES COMPANY



Product summary

BCC NetSys zip twin cables, often referred to as duplex cables, are constructed with two simplex units joined together by a central web. These tight jacketed cables utilise 900 micron buffered fibre and are constructed into 2.8mm cables. In addition, mini zip twin cable is also available, using 600 micron buffers. Ideal for patch leads, pigtails, test leads etc.

Features & benefits

- Range of fibres available
- Direct termination
- Compact rugged construction
- HFFR sheath
- Multimode fibre: Hytrel tight buffered
- Singlemode fibre: Easistrip gel-free HFFR semi-tight buffered providing 30cm stripping for quick termination
- Mini zip twin: Nylon tight buffered

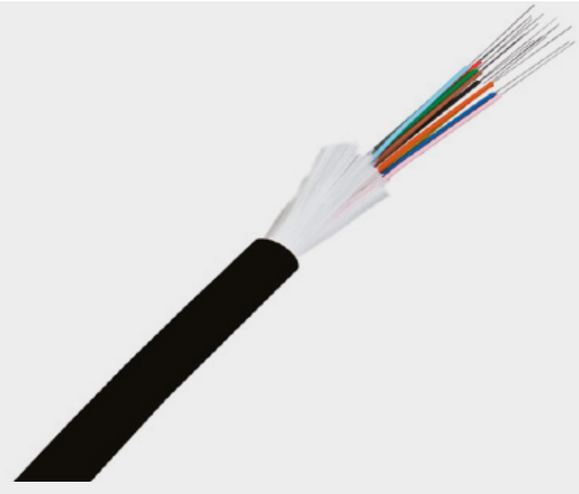
Part no	Description
F1801-XX-T002-H	9/125 OS1 Zip Twin 900µm
F1108-XX-T002-H	62.5/125 OM1 Zip Twin 900µm
F1206-XX-T002-H	50/125 OM2 Zip Twin 900µm
F1305-XX-T002-H	50/125 OM3 Zip Twin 900µm
F1405-XX-T002-H	50/125 OM4 Zip Twin 900µm
F1802-XX-T002-H	9/125 OS1 Mini Zip Twin 600µm
F1109-XX-T002-H	62.5/125 OM1 Mini Zip Twin 600µm
F1207-XX-T002-H	50/125 OM2 Mini Zip Twin 600µm
F1306-XX-T002-H	50/125 OM3 Mini Zip Twin 600µm
F1406-XX-T002-H	50/125 OM4 Mini Zip Twin 600µm

Item	Specification
Temperature range	
- Transport/storage - Installation - Operation	-10°C to +70°C -5°C to +50°C -10°C to +70°C
Crush resistance	100N
Diameter over buffered fibre	900 +/- 50µm
Nominal Cable Diameter	Zip twin: 2.8 x 5.6mm Mini zip twin: 108 x 3.5mm
Nominal weight (kg/km)	Zip twin: 14; mini zip twin: 6
Installation tension	Zip twin: 300N; mini zip twin: 200N
Min. Installation bend radius	Zip twin: 140mm Mini zip twin: 90mm
Static bend radius	Zip twin: 90mm
	Mini zip twin: 60mm
HFFR jacket conforms to	IEC 60332-1, IEC 61034 and IEC 60754

Internal/External Tight Buffered Distribution Cable

BCC NetSys-Opt™ Cabling System

BRITISH CABLES COMPANY



Product summary

The BCC NetSys Multi-purpose Tight Buffered Distribution Cable provides a cost effective solution to all internal/external datacomms cabling requirements, particularly where on-site direct connections are the preferred termination technique. The cable consists of individually colour coded 900µm secondary coated fibres, embedded in an E-glass yarn, and oversheathed with a single Low Smoke Zero Halogen (HFFR) outer jacket. The jacket is flame retardant, UV stabilised and extremely resistant to the ingress of moisture.

A choice of multimode and singlemode fibre types and specifications are offered, with fibre counts from two to twenty four in the standard range. Their small diameter, lightweight and excellent environmental performance makes these cables ideal for installation in a broad range of network applications including LAN backbones, networks with mixed indoor and outdoor cabling, outdoor in flooded ducts and any premises distribution system.

Features & benefits

- Fire retardant HFFR jacket
- Up to 24 fibres
- Choice of fibre type and specification
- Small diameter
- Water and UV resistant
- Internal or external use
- Easy to handle
- Small bending radius
- Low cost

Item	Specification
Jacket material	Black HFFR
Crush resistance	100N/100mm2
Min. bend radius	10 x cable diameter
Min. bend radius (load)	20 x cable diameter
Temperature range	-20°C to +70°C
Number of fibres	4 8 12 16 24
Cable out diameter (+/- 0.2Mm)	5.0 6.2 6.8 7.2 8.0
Outer jacket thickness (mm)	1.0 1.0 1.05 1.1 1.15
HFFR jacket conforms to	IEC 60332-1, IEC 61034 and IEC 60754

Part no	Description
F1050-00-TXXX-H	Tight Buffered OS2 9/125
F1104-00-TXXX-H	Tight Buffered OM1 62.5/125
F1202-00-TXXX-H	Tight Buffered OM2 50/125
F1301-00-TXXX-H	Tight Buffered OM3 50/125
F1401-00-TXXX-H	Tight Buffered OM4 50/125

XX= No OF FIBRES

Uni Tube Corrugated Steel Armoured Cable

BCC NetSys-Opt™ Cabling System

BRITISH CABLES COMPANY

Product summary

The BCC NetSys Uni Tube Steel Tape Armoured Cable is suitable for installation in the most demanding, harsh environments. The cable has excellent tensile strength, crush resistance characteristics and is also rodent proof. The cable consists of a central jelly filled tube, with up to twenty four optical fibres inside.

The tube is protected with a waterblocking glass yarn and a thick inner corrugated steel tape armour is then applied. A black FRNC/HFFR outer sheath then protects the cable construction and is extremely resistant to the ingress of moisture. A choice of multimode and singlemode fibre types and specifications are offered ranging from 2, up to 24 fibre configurations. This tough rugged cable is ideal for all external environments including LAN direct burial, tunnels and heavy-duty ducts.

Features & benefits

- 2 to 24 fibre configurations
- Choice of fibre type and specification
- Rodent proof
- Water resistant
- High tensile strength and crush resistant
- Corrugated Steel Armouring tape
- Suitable for harsh external environments
- Low cost
- 50/125, 62.5/125 & singlemode fibre types

Item	Specification
Jacket material	Black FRNC/HFFR
Max. tensile strength	1100N
Crush resistance	6000N/10cm
Impact resistance	3 impacts (w/25N.m)
Min. bend radius	15 x cable diameter
Min. bend radius (load)	20 x cable diameter
Moisture resistance	Passed
Compound flow	30cm/24hr/70°C passed
Temperature range	Installation: -15°C to +50°C Operation: -20°C to +60°C Storage: -30°C to +70°C
Nominal weight	87 kg/km
Standard put-up length	2100m, 4100m
Loose tube diameter	3.0mm
Outer jacket thickness	1.3 +/- 0.2mm
Cable out diameter	7.9 +/- 0.4mm
HFFR jacket conforms to	IEC 60332-1, IEC 61034 and IEC 60754

Part no	Description
F1051-00-CXXX-Y	Uni Tube CST OS2 9/125
F1105-00-CXXX-Y	Uni Tube CST OM1 62.5/125
F1402-00-CXXX-Y	Uni Tube CST OM2 50/125
F1302-00-CXXX-Y	Uni Tube CST OM3 50/125
F1203-00-CXXX-Y	Uni Tube CST OM4 50/125

XX= No OF FIBRES, Y=FIBRES PER TUBE

GRP Armoured Cable

BCC NetSys-Opt™ Cabling System

BRITISH CABLES COMPANY

Product summary

The BCC NetSys GRP armoured cables consist of one tube containing up to 24 optical fibres or multiple tubes each containing up to 12 optical fibres. GRP crush resistant rods encircle the loose tube, providing significant extra strength and resistance to rodents, then a PE sheath is applied.

Wherever extra high strength is required. Ideal for direct burial in the ground and other external applications where higher protection is required. Also applicable for installation in ducts and for other external requirements, e.g. structured wiring systems in networks for telecoms, cable TV and broadcasting. Its nonmetallic core permits installation in high voltage environments. Suitable for short span aerial applications.

Features & benefits

- The GRP rods provide rodent protection along with excellent crush and impact resistance
- Maximum protection through use of GRP for all rods, without any fillers
- Installation tension up to 6000N
- Suitable for direct burial
- Improved abrasion resistance
- Totally non-metallic
- Standard black LDPE sheath for protection against UV radiation
- Longitudinal and lateral waterblocking
- Interstitial dry waterblocking as standard in multitubes
- Fibres colour coded according to TIA/EIA-598, for easy identification

Item	Specification
Temperature range	
2-24 Fibre - Transport/storage - Installation - Operation	 -20°C to +70°C -5°C to +50°C -20°C to +70°C
36-72 Fibre - Transport/storage - Installation - Operation	 -30°C to +70°C -5°C to +50°C -30°C to +70°C
Cable type	2-16f 24f 36-48f 60-72f
No. of tubes/filters	1 1 4 6
Nominal cable diameter	9mm 11mm 15mm 16.7mm
Nominal weight (kg/km)	72 103 183 206
Installation tensions (N)	2000 3000 6000 6000
Min. installation bend radius (mm)	230 280 465 520
Static nemd radius (mm)	175 210 350 390
Crush resistance (N)	2000 2000 4000 4000

Part no	Description
F1052-00-CXXX-Y	OS2 9/125 Black
F1303-00-CXXX-Y	OM1 62.5/125 Black
F1204-00-CXXX-Y	OM2 50/125 Black
F1106-00-CXXX-Y	OM3 50/125 Black
F1403-00-CXXX-Y	OM4 50/125 Black

XX= No OF FIBRES, Y=FIBRES PER TUBE

SWA Uni Tube Fibre Cable

BCC NetSys-Opt™ Cabling System

Product summary

The BCC NetSys SWA Uni Tube Cable is suitable for direct burial installations making it the perfect solution for the most demanding and harsh environments. The SWA cable has excellent tensile strength and the layer of 0.9mm steel wire provides safe rodent protection. The cable core consists of a central jelly filled polyester tube with up to 24 optical fibres contained within. The tube is protected with a water blocking E-glass yarn and a black LDPE, UV stable inner jacket plus a layer of 0.9mm steel wire armouring. All of which is surrounded by a 1.5mm thick black FRNC/HFFR sheath which protects the cable and construction and is extremely resistant to the ingress of moisture.

A choice of multimode and singlemode fibre types and specifications are offered ranging from 4 up to 24 fibre configurations. This tough rugged cable is ideal for all external environments including direct burial, tunnels and heavy duty ducts.

Features & benefits

- 4 to 24 fibre configuration
- Suitable for indoor and outdoor usage
- Waterproof
- Rodent proof
- Cables have a HFFR flame retardant sheath
- Suitable for direct burial
- Available in 50/125, 62.5/125 and singlemode fibre types

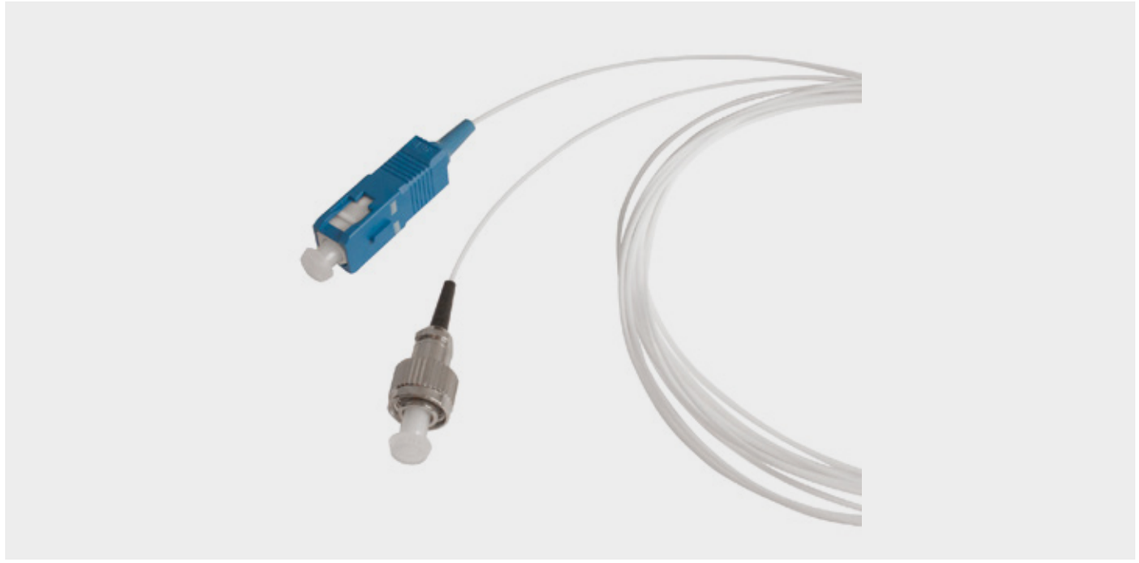
Part no	Description
F1053-00-CXXX-Y	Uni Tube SWA HFFR OS2 9/125
F1304-00-CXXX-Y	Uni Tube SWA HFFR OM1 62.5/125
F1205-00-CXXX-Y	Uni Tube SWA HFFR OM2 50/125
F1107-00-CXXX-Y	Uni Tube SWA HFFR OM3 50/125
F1404-00-CXXX-Y	Uni Tube SWA HFFR OM4 50/125

XX= No OF FIBRES, Y=FIBRES PER TUBE

Item	Specification
Jacket material	Black FRNC/HFFR
Max. tensile strength	4000 N
Crush resistance	4000 N/10cm
Impact resistance	3 impacts (w/30N.m)
Min. bend resistance	15 x cable diameter
Min. bend resistance (load)	20 x cable diameter
Moisture resistance	Passed
Compound flow	30cm/24h/70°C passed
Temperature range	Installation: -15°C to +50°C Operation: -20°C to +70°C Storage: -30°C to +70°C
Nominal weight	180 kg/km
Standard put-up length	2100m
Loose tube diameter	3.0mm
Inner jacket thickness	1.0 +/- 0.2mm
Outer jacket thickness	1.4 +/- 0.3mm
Cable outer diameter	10.7 +/- 0.4mm
HFFR jacket conforms to	IEC 60332-1, IEC 61034 and IEC 60754

Fibre Optic Pigtails

BCC NetSys-Opt™ Cabling System



Product summary

The BCC NetSys fibre optic pigtails are typically used to link the fibre optic cable with fibre optic equipment. The connector side of the pigtail is used to link the equipment, while the other side is fusion spliced together with the fibre cable.

By splicing together the fibre glasses, it can reach a minimum insertion loss.

Features & benefits

- LC, SC, ST and FC available from stock
- E2000, ESCON, FDDI, MU & MTRJ available within minimal time-frame
- Individually bagged with individual test certificates
- Can be labelled and packaged to your requirements

Part no	Description
23-625-LC-010	LC Pigtail 62.5/125 1 Metre
23-625-ST-010	SC Pigtail 62.5/125 1 Metre
23-625-SC-010	ST Pigtail 62.5/125 1 Metre
23-50-LC-010	LC Pigtail 50/125 1 Metre
23-50-ST-010	SC Pigtail 50/125 1 Metre
23-50-SC-010	ST Pigtail 50/125 1 Metre
23-OM3-LC-010	LC Pigtail OM3 1 Metre
23-OM3-ST-010	SC Pigtail OM3 1 Metre
23-OM3-SC-010	ST Pigtail OM3 1 Metre
23-OM4-LC-010	LC Pigtail OM4 1 Metre
23-OS1-SCPC-010	LC/PC Singlemode Pigtail 1 Metre
23-OS1-LCPC-010	SC/PC Singlemode Pigtail 1 Metre
23-OS1-STPC-010	ST/PC Singlemode Pigtail 1 Metre

Item	Specification
Singlemode connector specifications	
Fibre type	900um tight buffered
Length	1.0m +/- 10mm. Other lengths available to order
Sheath colour	Yellow. Other colours available to order
Fire performance	HFFR applications flame resistance IEC 60332-1
Connector specification	Compliant with IEC 874-14
Ferrule material	Full zirconia
Insertion loss	Max. 0.3dB typical 0.2dB
Return loss	UPC>50dB, APC > 60dB
Operating temperature	-40°C to +85°C
Multimode connector specifications	
Length	1.0m +/- 10mm. Other lengths available to order
Sheath colour	White/Orange/Aqua. Other colours available to order
Fire performance	HFFR applications flame resistance IEC 60332-1
Connector specification	Compliant with IEC 874-14
Ferrule material	Full zirconia
Insertion loss	Max. 0.3dB typical 0.2dB
Operating temperature	-40°C to +85°C

Patch Leads

BCC NetSys-Opt™ Cabling System

BRITISH CABLES COMPANY

Product summary

The BCC NetSys patch leads are manufactured in-house, are 100% tested and certified and surpass the high standards required for datacomms and CATV applications. They are available in multimode OM1 62.5/125, OM2 50/125, OM3 50/125, OM4 50/125 and singlemode OS1 9/125 ruggedised cable.

The leads are manufactured in our advanced fibre termination facility under stringently controlled quality conditions. Our termination facility is one of the largest in the UK providing a high volume and fast turnaround service for all types of multimode and singlemode terminations.

Features & benefits

- LC, SC and ST connector leads available
- 100% tested and certified
- Singlemode and multimode cable
- OM1, OM2, OM3 OM4 and OS1 cable
- Terminated under quality controlled conditions
- 1m to 5m lengths available from stock

Item	Specification
Singlemode connector specifications	
Connector specification	Compliant with IEC 874-14
Ferrule material	Full zirconia
Insertion loss	Max. 0.3dB typical 0.2dB
Return loss	UPC>50dB, APC > 60dB
Operating temperature	-40°C to +85°C
Multimode connector specifications	
Connector specification	Compliant with IEC 874-14
Ferrule material	Full zirconia
Insertion loss	Max. 0.3dB typical 0.2dB
Operating temperature	-40°C to +85°C

Part no	Description
Singlemode OS1 9/125 Patch Lead (1 meter)	
23-OS1-LCSC-010	LC to SC Duplex
23-OS1-LCST-010	LC to ST Duplex
23-OS1-SCSC-010	SC to SC Duplex
23-OS1-SCST-010	SC to ST Duplex
23-OS1-SCFC-010	SC to FC Duplex
23-OS1-FCFC-010	FC to FC Duplex
Multimode patch lead (OM1/OM2/OM3/OM4 - 1 meter)	
23-OS1-LCFC-010	LC to LC Duplex
23-XX-LCLC-010	LC to LC Duplex
23-XX-LCSC-010	LC to SC Duplex
23-XX-LCST-010	LC to ST Duplex
23-XX-SCSC-010	SC to SC Duplex
23-XX-SCST-010	SC to ST Duplex

XX can be replaced with the below to denote fibre type

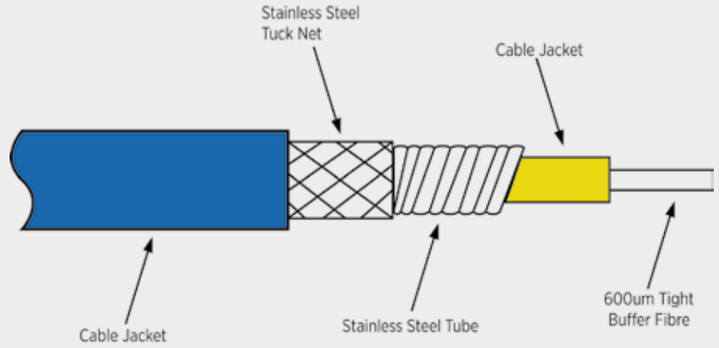
*OM4 only available in LC to LC, LC to SC and SC to SC

XX = OM1	XX = OM2
XX = OM3	XX = OM4

Armoured Patch Cords

BCC NetSys-Opt™ Cabling System

BRITISH CABLES COMPANY



Product summary

BCC NetSys Armoured patchcords are used in areas or applications where additional safeguards are required to ensure added cable protection. The Stainless Steel Armour construction is designed to provide strength, but remains flexible enough for interconnection and routing.

Features & benefits

- Good mechanical property and environment property
- Flame resistant performance
- Soft, agility, convenience for connection
- Singlemode and Multimode available

Part no	Description
23-OS1-YYYY-010-ARM	BCC NetSys Armoured Patch Cord
23-XXX-YYYY-010-ARM	LC to ST Duplex

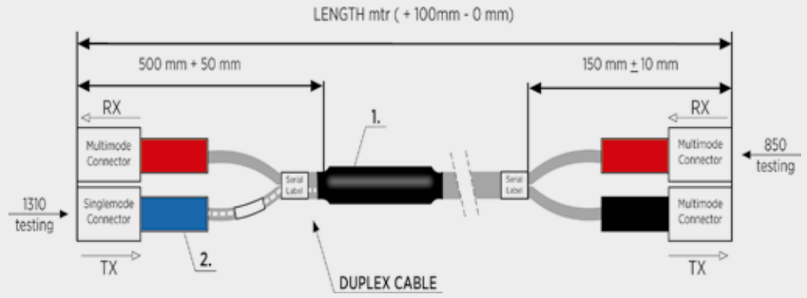
WHERE:
XXX=MULTIMODE FIBRE SPEC E.G. OM1
YYYY=CONNECTOR CONFIG e.g. SCSC
ZZZ=LENGTH e.g. 010=1m

Item	Specification
Singlemode connector specifications	
Core/mode diameter	9.2+/-0.4um@1310nm / 10.4+/-0.8um@1550nm
Cladding diameter	125+/-1um
Max. Attenuation	0.5dB/km@1310nm / 0.4dB/km@1550nm
Operating temperature	-20°C to +70°C
Outer diameter	2.85+/- 0.10mm
Net weight	18 kg/km
Bending radius	Dynamic 15D, static 10D
Allowable tensile	200 (N)
Crush resistant	3000 N/100mm
Multimode connector specifications	
Core/mode diameter	50+/-2.5um / 62.5+/-2.5um
Cladding diameter	125+/- um
Max. Attenuation	3.5dB/km@850nm / 1.5dB/ km@1300nm
Operating temperature	-20°C to +70°C
Outer diameter	2.85+/- 0.10mm
Net weight	18 kg/km
Bending radius	Dynamic 15D, static 10D
Allowable tensile	200 (N)
Crush resistant	3000 N/100mm

Mode Conditioned Patch Lead

BCC NetSys-Opt™ Cabling System

BRITISH CABLES COMPANY



Product summary

BCC NetSys Mode conditioning patch cords are designed for long wave Gigabit Ethernet (1310nm/1000 base-LX) network applications where both single mode and multi mode interconnects are required. The connection between the
MM and SM fibre is slightly offset; resulting in the mode conditioning patch cord removing transmission-distance
limiting Differential Mode Delay (DMD) that is present in MM fibre.

Features & benefits

- Connector options: E2000, FC, LC, MTRJ, SC and ST.
- Stable and permanent core offset
- Low-loss connections
- Solution to DMD effects

Part no	Description
23-MCPL-YYYY-ZZZ	BCC NetSys Mode Conditioned Patch Lead
Mode conditioned splice parts	
23-MCC	Mode Conditioned Clip
23-45MMSPWB	45mm Splice Protector (without bar)
23-HS254-80	Heat Shrink 254 (80mm)

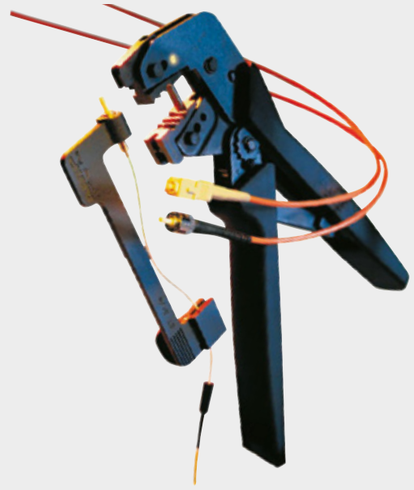
YYYY DEMOTES CONNECTOR CONFIG EG SCSC
ZZZ DENOTES LENGTH e.g.. 010=1M

Item	Specification
Insertion loss: Singlemode @ 1310nm Multimode @ 850nm	 <0.5dB <0.5dB
Cable type:	Duplex 62.5/125 or 50/125 1.8mm or 2.8mm HFFR Simplex 900um or 650um 9/125 threaded into singlemode connector leg
Testing	In accordance with Insertion Loss and test version 1
HFFR jacket conforms to	IEC 60332-1, IEC 61034 and IEC 60754

LightCrimp Plus Connectors

BCC NetSys-Opt™ Cabling System

BRITISH CABLES COMPANY



Product summary

The LightCrimp Plus connectors are non-epoxy, no polish fibre connectors. They make terminating faster and easier, with a typical connection time of less than a minute. The LightCrimp Plus connectors feature a factory polished
ferrule enabling the fibres to be terminated in three easy steps; strip the cable, cleave the fibre and crimp on the connector.

Minimal training is required in order to terminate the connector, and because of the special design there is no power supply needed and only a small amount of tooling required. All connectors within the range exceed the performance requirements of TIA/EIA-568-C. LightCrimp Plus termination kits include all the necessary tooling for terminating the connectors, with replacement cleave tools and guides available separately.

Features & benefits

- Allows quick and easy termination
- Factory polished to a consistent and high quality finish
- Connection time of under one minute
- No workstation required
- Minimal training required
- Ideal for terminating on remote sites with no power

Part no	Description
23-LC+SC-625	LightCrimp Plus SC 62.5/125
23-LC+SC-50	LightCrimp Plus SC 50/125
23-LC+ST-625	LightCrimp Plus ST Plug 62.5/125
23-LC+ST-50	LightCrimp Plus ST Plug 50/125
23-LC+SC-TK	LightCrimp Plus SC Tool Kit
23-LC+ST-TK	LightCrimp Plus ST Tool Kit
23-LC+SCST-TK	LightCrimp Plus ST/SC Tool Kit
23-LC+SC-DS	LightCrimp Plus SC Die Set
23-LC+SC-DS	LightCrimp Plus ST Die Set
23-LC+-CT	Cleave Tool
23-LC+SC-CHG	SC Cable Holder and Guide
23-LC+ST-CHG	ST Cable Holder and Guide

XP Fit Plus Field Assembly Connectors

BCC NetSys-Opt™ Cabling System

BRITISH CABLES COMPANY

Product summary
The XP Fit Plus Connectors are a pre-polished, preassembled, non-epoxy fibre connector compatible with standard SC and LC connectors. Without polishing or adhesives, the XP Fit Plus makes terminating faster and easier, with a typical connection time of less than two minutes. The XP Fit Plus comes with an assembly jig and fibre holder for 250µm and 900µm tight buffered fibre, making for an accurate alignment and fibre cleave when terminating.

Following the guides on the assembly jig and fibre holder, the assembly is effortless. Once the fibre is pushed into the connector and a click is heard, the job is complete and the connector is ready to use in CATV, telecommunication networks, multimedia, and some FTTX applications.

Kit Contents: Jacket and 250um Fibre stripper + 125um buffer remover, thermal buffer removal tool, replacement blade set, precision cleave tool, lint free dry wipes, fibre optic cleaning pen, Kevlar scissors, fibre disposal unit, fine permanent marker pen, fibre checker, 2.5mm to 1.25mm adaptor - all comes in a light, soft carry case.

Features & benefits
- Compatible with conventional LC/SC connectors
- Quick assembly in under 2 minutes
- No adhesive or polishing required
- Compact tool without electric power
- Same environmental endurance as conventional LC/SC connector
- Exceeds TIA/EIA-568-B.3 standards

Part no	Description
23-XP-SMLC-99-BU	P Fit Plus, LC Connector Singlemode Blue, 900µm 9/125
23-XP-MMLC-95-BK	XP Fit Plus, LC Connector Multimode Black, 900µm 50/125
23-XP-MMLC-95-BE	XP Fit Plus, LC Connector Multimode Beige, 900µm 62.5/125
23-XP-MMLC-95-AQ	XP Fit Plus, LC Connector Multimode Aqua, 900µm 50/125, 10G, OM3
23-XP-SMSC-99-BU	XP Fit Plus, SC Connector Singlemode Blue, 900µm 9/125
23-XP-MMSC-95-BK	XP Fit Plus, SC Connector Multimode Black, 900µm 50/125
23-XP-MMSC-95-BE	XP Fit Plus, SC Connector Multimode Beige, 900µm 62.5/125
23-XP-MMSC-95-AQ	XP Fit Plus, SC Connector Multimode Aqua, 900µm 50/125, 10G, OM3
23-XP-TTK	XP Fit Plus Termination Tool Kit

LC Connectors & Adaptors

BCC NetSys-Opt™ Cabling System

BRITISH CABLES COMPANY

Product summary
The LC connectors and adaptors set the standard for small optical fibre interconnects. With its simple to use latched lever locking mechanism preventing accidental disconnection and precision housing for optimum performance. The LC connector uses a 1.25mm ferrule, half the size of the ST. Otherwise, it is a standard ceramic ferrule connector and its good performance makes it highly favoured for singlemode terminations. LC connectors are available in both multimode and singlemode and the one-piece design features preradiused ceramic ferrules.

Features & benefits
- Low insertion loss and back reflection loss
- High precision alignment
- Telcordia, ANSI, TIA/EIA, NTT and JIS compliance

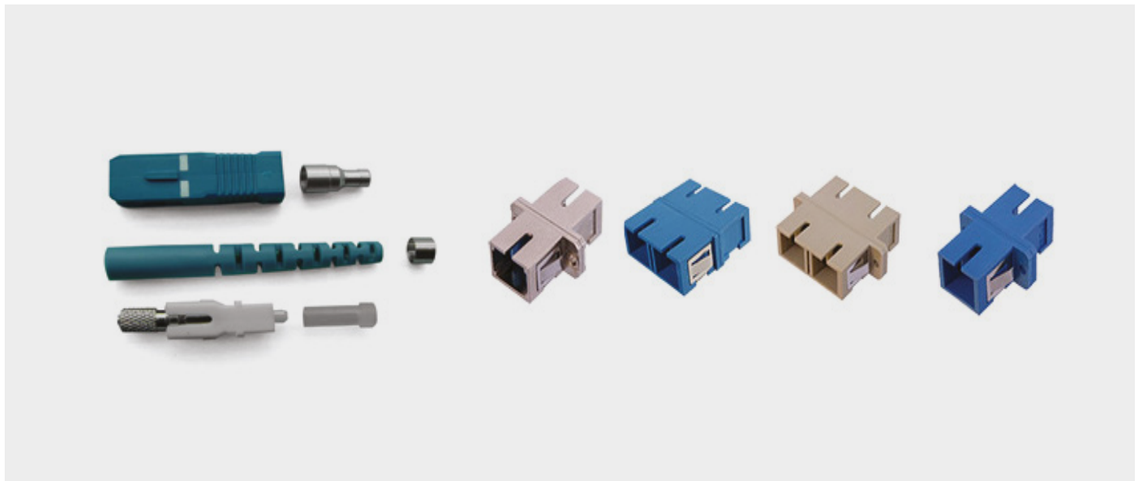
Part no	Description
22-CSM-LCSXP-BW	LC SX Plug SM Pigtail Blue Body - White Boot
22-CSM-LCSX2-BB	LC SX Plug SM 2mm Blue Body - Blue Boot
22-CSM-LCSX2-BR	LC SX Plug SM 2mm Blue Body - Red Boot
22-CSM-LCDX2-BW	LC DX Plug SM 2mm Blue Body - White Boot
22-CSM-LCDX3-BB	LC DX Plug SM 3mm Blue Body - Blue Boot
22-CMM-LCSXP-AW	LC SX Plug MM Pigtail Aqua Body - White Boot
22-CMM-LCSX2-AW	LC SX Plug MM 2mm Aqua Body - White Boot
22-CMM-LCDX2-AW	LC DX Plug MM 2mm Aqua Body - White Boot
22-CMM-LCDX-3-AR 22-CMM-LCDX-3-AB	LC DX Plug MM 3mm Aqua Body – Red & Black Boots
22-ASM-LCDX-BU	LC DX SM Adaptor Blue - Ceramic Sleeve
22-ASM-LCQD-BU	LC Quad SM Adaptor Blue - Ceramic Sleeve
22-AMM-LCDX-BE	LC DX MM Adaptor Beige - Ceramic Sleeve
22-ASM-LCDX-AQ	LC DX MM Adaptor Aqua - Ceramic Sleeve
22-ASM-LCQD-AQ	LC Quad MM Adaptor Aqua - Ceramic Sleeve

Item	Specification
Lc connector versions available	2.0 & 3.0mm patch, 900µm simplex & duplex
Colour	Singlemode: blue, Multimode: beige
Singlemode	Insertion loss: max. 0.3 dB, typical 0.2 dB Return loss: UPC > 50 dB, typical 55 dB APC > 60 dB, typical 65 dB
Multimode	Insertion loss: max. 0.3 dB, typical 0.12 dB
Mechanical capillary diameter	126 +1/-0µm
Ferrule diameter	1.25mm ± .001 Pre-radiused, PC-end finish for PC ferrule to ferrule. R 10 to 25mm
Vibration (mated pair)	10-55 Hz 1.5mm P to P =0.3 dB change (IEC 61300-2-1)
Mating durability	1000 mating cycles - clean every 25 < 0.2 dB change (IEC 61300-2-2)
High temperature	75°C for 96 hours =0.2 dB change (IEC 61300-2-18)
Damp heat	60°C at 95% RH 96 hours =0.2 dB change (IEC 61300-2-19)
Temperature cycling	-40 to +85°C 42 cycles =0.2 dB change (IEC 61300-2-48)
Operating temperature	-40°C to +85°C
Lc adaptor - insertion loss	<0.20 dB
Lc adaptor - durability	<0.20 dB typical change 1000 matings
Lc adaptor - operating temperature	-40 to + 85°C

SC Connectors & Adaptors

BCC NetSys-Opt™ Cabling System

BRITISH CABLES COMPANY



Product summary
SC connectors are manufactured using the best quality components and they exceed all areas of the standards covering optical fibre connectors. The one-piece design features pre-radiused ceramic ferrules, and are suitable for use with two part heat curing epoxies and cold cure anaerobic adhesives. Available with both 900um boots for pigtail termination or 3.0mm crimp ring & boot for patch cord production. Simplex and duplex versions available (duplex version uses two simplex connectors with a clip to be coupled as required).

Features & benefits
- Low insertion loss and back reflection loss
- High precision alignment
- Telcordia, ANSI, TIA/EIA, NTT and JIS compliance
- Compact design
- Choice of housing material and sleeve material
- With or without flange

Part no	Description
22-CSM-SCSX9-BB	SC SX Plug SM 900um Blue Body - Blue Boot
22-CSM-SASX9-GG	SC/APC SX Plug SM 900um Green Body - Green Boot
22-CSM-SCSX2-BR	SC SX Plug SM 2mm Blue Body - Red Boot
22-CSM-SCSX2-BB	SC SX Plug SM 2mm Blue Body - Blue Boot
22-CSM-SCSX3-BB	SC SX Plug SM 3mm Blue Body - Blue Boot
22-CSM-SASX3-GG	SC/APC SX Plug SM 3mm Green Body - Green Boot
22-CMM-SCSX9P-BE	SC SX Plug MM 900um Pigtail Beige Body - Beige Boot
22-CMM-SCSX2-BE	SC SX Plug MM 2mm Beige Body - Beige Boot
22-CMM-SCDX2-BE	SC DX Plug MM 2mm Beige Body - Beige Boot
22-CMM-SCSX3-BE	SC SX Plug MM 3mm Beige Body - Beige Boot
22-ASM-SCSX-BU	SC SX SM Adaptor Blue - Ceramic Sleeve
22-AMM-SCSX-BE	SC SX MM Adaptor Beige - Ceramic Sleeve
22-AMM-SCDX-AQ	SC DX MM Adaptor Aqua - Ceramic Sleeve
22-AMM-SCDX-BE	SC DX MM Adaptor Beige - Ceramic Sleeve

Item	Specification
SC connector versions available	2mm & 3mm patch, 900µm
Colours	2mm & 3mm boot: blue, red, black, green 900µm boot: blue
Termination procedure	Epoxy-crimp-polish
Standard packaging	100pcs bulk packed
Singlemode	Insertion loss: max. 0.3 dB, typical 0.2 dB Return loss: UPC > 50 dB, typical 55 dB APC > 60 dB, typical 65 dB
Multimode	Insertion loss: max. 0.3 dB, typical 0.12 dB (IEC 874-1 method)
Capillary diameter tolerance	SM: 126 ± 0.5µm, MM: 127 =/- 0.5µm
Ferrule diameter	2.5mm ± .001 Pre-radiused, PC-end finish for PC ferrule to ferrule. R 10 to 25mm
Vibration (mated pair)	10-55 Hz, 1.5mm P to P =0.3 dB change (IEC 61300-2-1)
Mating durability	1000 mating cycles - clean every 25 < 0.2 dB change (IEC 61300-2-2)
High temperature	75°C for 96 hours =0.2 dB change (IEC 61300-2-18)
Damp heat	60°C at 95% RH, 96 hours =0.2 dB change (IEC 61300-2-19)
Temperature cycling	-40 to +75°C, 40 cycles =0.2 dB change (IEC 61300-2-48)
Operating temperature	-40°C to +85°C
SC adaptor - insertion loss	<0.20 dB
SC adaptor - durability	<0.20 dB typical change 1000 matings
SC adaptor - operating Temperature	-40 to + 85°C

ST Connectors & Adaptors

BCC NetSys-Opt™ Cabling System

BRITISH CABLES COMPANY

Product summary
The ST optical fibre connector comprises of a nickel plated brass body and a ceramic ferrule/spring/crimp barrel assembly plus a crimp over sleeve and rubber boot. These connectors are suitable for 900µm and 2-3mm cables. The connector is precision made and manufactured to demanding specifications. Connectors are suitable for use with two part heat curing epoxies and cold cure anaerobic adhesives.

The ST adaptor set the standard for optical fibre interconnects. With its simple to use bayonet locking mechanism, it preventing accidental disconnection. With the precision housing this adaptor gives the very best performance. Generally there are two types of alignment sleeve within an adaptor; phosphor bronze for multimode or zirconia (ceramic) for singlemode.

Features & benefits
- Low insertion loss and back reflection loss
- High precision alignment
- Telcordia, ANSI, TIA/EIA, NTT and JIS compliance
- Compact design
- Choice of housing material and sleeve material
- Nickel / plastic

Part no	Description
22-CSM-STSX9-YB	ST SX Plug SM 0.9mm Yellow Cap - Blue Boot
22-CSM-STSX3-CY	ST SX Plug SM 3mm Clear Cap - Yellow Boot
22-CMM-STSX9-RB	ST SX Plug MM 0.9mm Red Cap - Black Boot
22-CMM-STSX3-CB	ST SX Plug MM 3mm Clear Cap - Black Boot
22-ASM-ST-YE	ST SM Adaptor Ceramic - Yellow Caps
22-AMM-ST-BK	ST MM Adaptor Ceramic - Black Caps

Item	Specification
ST connector versions available	2mm & 3mm patch, 900µm
Colours	2mm&3mm boot: blue, red, black, yellow 900µm boot: blue, black, yellow
Termination procedure	Epoxy-crimp-polish
STandard packaging	100pcs bulk packed
Singlemode	Insertion loss: max. 0.3 dB, typical 0.2 dB Return loss: UPC > 50 dB, typical 55 dB APC > 60 dB, typical 65 dB
Multimode	Insertion loss: max. 0.3 dB, typical 0.12 dB (IEC 874-1 method)
Capillary diameter tolerance	SM: 126 ± 0.5µm, MM: 127 =/- 0.5µm
Ferrule diameter	2.5mm ± .001 Pre-radiused, PC-end finish for PC ferrule to ferrule. R 10 to 25mm
Vibration (mated pair)	10-55 Hz, 1.5mm P to P =0.3 dB change (IEC 61300-2-1)
Mating durability	1000 mating cycles - clean every 25 < 0.2 dB change (IEC 61300-2-2)
High temperature	75°C for 96 hours =0.2 dB change (IEC 61300-2-18)
Damp heat	60°C at 95% RH, 96 hours =0.2 dB change (IEC 61300-2-19)
Temperature cycling	-40 to +75°C, 40 cycles =0.2 dB change (IEC 61300-2-48)
Operating temperature	-40°C to +85°C
ST adaptor - insertion loss	<0.20 dB
ST adaptor - durability	<0.20 dB typical change 1000 matings
ST adaptor - operating Temperature	-40 to + 85°C

FC Connectors & Adaptors

BCC NetSys-Opt™ Cabling System

BRITISH CABLES COMPANY

Product summary
The FC Optical Fibre Connector comprises of a nickel plated brass body and a ceramic ferrule/spring/crimp barrel assembly plus a crimp over sleeve and rubber boot. These connectors are suitable for 900µm and 2 and 3mm cables. The connector is precision made and manufactured to demanding specifications. The combination of a ceramic ferrule and a precision nickel plated brass housing provides consistent long-term mechanical and optical performance. Connectors are available in both multimode and singlemode options. One piece design features
preradiused ceramic ferrules. Suitable for use with two part heat curing epoxies and cold cure anaerobic adhesives. Generally there are two types of alignment sleeve within an adaptor; phosphor bronze for multimode or zirconia (ceramic) for singlemode. The FC connector and adaptor set are mainly used for singlemode applications where precision is required.

Features & benefits
- Low insertion loss and back reflection loss
- High precision alignment
- NTT-FC Compatibility
- Compact design
- Choice of housing shape and sleeve material
- Nickel plated brass body
- Telcordia, ANSI, TIA/EIA, NTT and JIS compliance

Part no	Description
22-CSM-FASX9-GN	FC/APC SX Plug SM 900um Green Boot
22-CSM-FCSX2-RB	FC SX Plug SM 1.8mm Red & Blue Boots
22-CSM-FPSX3-BU	FC/PC SX Plug SM 3mm Blue Boot
22-CSM-FASX3-GN	FC/APC SX Plug SM 3mm Green Boot
22-ASM-FCSX-RD	FC SX SM Adaptor - Red Caps

Item	Specification
ST connector versions available	2mm/3mm patch, 900µm
Termination procedure	Epoxy-crimp-polish
STandard packaging	100pcs bulk packed
Boot colours	Blue, black
Singlemode	Insertion loss: max. 0.3 dB, typical 0.2 dB Return loss: UPC > 50 dB, typical 55 dB APC > 60 dB, typical 65 dB
Multimode	Insertion loss: max. 0.3 dB, typical 0.12 dB (IEC 874-1 method)
Mechanical capillary diameter	SM: 126 ± 0.5µm, MM: 127 =/- 0.5µm ferrule diameter 2.5mm ± .00 Pre-radiused end finish for PC ferrule to ferrule. R 10 to 25mm
Vibration (mated pair)	10-55 Hz, 1.5mm P to P =0.3 dB change (IEC 61300-2-1)
Mating durability	1000 mating cycles - clean every 25 < 0.2 dB change (IEC 61300-2-2)
High temperature	75°C for 96 hours =0.2 dB change (IEC 61300-2-18)
Damp heat	60°C at 95% RH, 96 hours =0.2 dB change (IEC 61300-2-19)
Temperature cycling	-40 to +75°C, 40 cycles =0.2 dB change (IEC 61300-2-48)
Operating temperature	-40°C to +85°C
ST adaptor - insertion loss	<0.20 dB
ST adaptor - durability	<0.20 dB typical change 1000 matings
ST adaptor - operating Temperature	-40 to + 85°C

Termination Kit & Fyberscope™

BCC NetSys-Opt™ Cabling System

BRITISH CABLES COMPANY

Product summary
Whether termination procedures are taking place on-site or in a production facility, the BCC NetSys Termination Kit provides all the necessary equipment and consumables for manufacturing cabling assemblies and terminating cables.

The kit is supplied in a rugged carry case, resistant to demanding on-site working conditions. BCC NetSys termination kits are available from stock with replacement consumables available individually.

The BCC NetSys Fyberscope™ is the ideal instrument for carrying out the necessary visual checks on a fibre optic ferrule. Designed to be a hand-held and lightweight optical microscope, the Fyberscope™ is available in four styles - 100, 200, 320 and 400 times magnification. The Fyberscope™ is manufactured with a robust metal construction, and provides a clear central focus - eliminating the need for alignment. The Fyberscope™ also includes a backlight facility, enabling the user to illuminate the fibre core and check for scratches, cracks and other impurities. A choice of universal or dedicated adaptors can be supplied.

Features & benefits

Termination Kit
- Supplied in rugged, durable flightcase
- Everything you need in one box
- Consumables can be supplied individually

Fyberscope
- A third of the cost of industry standard microscopes
- Perfect vision of ferrules
- Hand-held and lightweight
- Includes backlight facility
- Supplied ready to use
- Robust metal construction

Termination kit contents
2oz cleaning solvent, 4 bit screwdriver, fibre stripper, safety glasses, PVC electrical tape, black marker, connector cleaner, 5x degreaser wipes, Kevlar scissors, 5x 60mm fusion splice sleeves, ruler, jacket stripper, black work mat, buffer tube stripper, fibre disposal unit, fabric tape measure, round cable slitter, 6" side cutting pliers, foam swabs, 1/2 nut driver, cleaning tissues, 3x economy tie labels, utility knife, tweezers, shrink tube kit, needle nose pliers, 1 m furcation, piano wire, fibre optic wipes - all supplied in a rugged carry case.

Part no	Description
23-BCC NetSys-FTK	BCC NetSys Fibre Termination Kit
23-BCC NetSys-HF	BCC NetSys Hand-held FyberscopeTM

Mini 4s Active Alignment Splicer

BCC NetSys-Opt™ Cabling System

BRITISH CABLES COMPANY

Product summary
The Mini 4S is conveniently designed for FTTx, its excellent portability and reliability gives inexperienced customers convenience in any place, especially for telegraphic poles, manholes etc. Furthermore, it's faster splicing and heating time also provide unprecedented efficiency and satisfaction to customers.

Features & benefits
- Applicable cleaved length - up to 5mm
- Heating time - 18 sec <60mm sleeve>
- Universal holder 250um,900um, 2-3Ø Indoor
- Two batteries are included in standard package - 400 cycles (splicing & heating) with two batteries
- Full touch screen - GUI interface & tempered glass
- SOC compatible
- FTTH solution
- Anti-shock, dustproof and waterproof

Part no	Description
23-M4S-FSK	Mini 4S Fusion Splicer Kit
23-SE903-SE	BCC NetSys SE903 Spare Electrodes

Item	Specification
Splicing method	Active Alignment DAA (Digitalized Active Alignment)
Average loss	SM(0.02dB) / mm(0.01dB) / DS(0.05dB)/ NZDS(0.05dB) / G.657(0.03dB)
Return loss	>>60dB
Splice time	12s average SM / SM 7s Quick mode
Electrode lifespan	>3,500 arcs
Applicable fibre	SM(ITU-T G.652), MM(ITU-T G.651), DS(ITU-T G.653), NTZDS(ITU-T G.655), IT-G657A, ITG657B 0.25mm, 0.9mm, 2.0mm, 2.4mm, 3.0mm, FLAT(indoor cable)
Cleaved length	Coating Diameter <0.25mm = 5-16mm, Coating Diameter >0.25mm = 8-16mm minimum
Coating diameter	100-1000um
Cladding diameter	80-150um
Heating programs	Factory installed mode:3, User installable mode:23
Heating time	Typical 18s
Protection sleeve	40mm, 60mm, SOC - 3.0, SOC - 0.9
Data output	Micro HDMI-USB master device
Splice programs	8 User modes, User installable mode: 70+
Splice memory	Up to 2000 records
Battery	Typical 200 Cycles (Splice & Heat) / single battery <2 Batteries Standard>
Power supply	AC 100-240V input or DC 9-14V
Monitor	Colour 4.3" LCD monitor, with Touch Screen (Tempered Glass)
Cameras	2 CCD camera system
Magnification	XY: 150 times, X/Y: 300 power
Fibre display	X/Y or XY, singleX.Y
Weight	1.31Kg (without battery)
Size	122mm X 124mm X 138mm
Wind protection	The max wind speed 15m/s
Operating environment	Elevation 0-5000 meters, -15-60°C, 0-95% relative humidity
Storage condition	Temperature -40 to 80°C, 0-95% relative humidity, battery -20-30°C
Pull test	1.96-2.25N (standard)

Mini 6s Core Alignment Splicer

BCC NetSys-Opt™ Cabling System

BRITISH CABLES COMPANY

Product summary
The Mini 6S with its excellent portability and reliability gives inexperienced customers convenience under any environmental conditions. Furthermore, it's faster splicing and heating time also provide unprecedented efficiency and satisfaction to customers.

Features & benefits
- Heating time - 18 sec <60mm sleeve>
- Universal holder 250um,900um, 2-3Ø Indoor
- Two batteries are included in standard package - 400 cycles (splicing & heating) with two batteries
- Full touch screen - GUI interface & tempered glass
- SOC compatible
- The fastest splicing time - 7s with SM fibre
- Anti-shock, dustproof and waterproof

Part no	Description
23-M6S-FSK	Mini 6S Fusion Splicer Kit
23-SE903-SE	BCC NetSys SE903 Spare Electrodes

Item	Specification
Splicing method	Active Alignment DAA (Digitalized Active Alignment)
Average loss	SM(0.02dB) / mm(0.01dB) / DS(0.05dB)/ NZDS(0.05dB) / G.657(0.03dB)
Return loss	>>60dB
Splice time	12s average SM / SM 7s Quick mode
Electrode lifespan	>3,500 arcs
Applicable fibre	SM(ITU-T G.652), MM(ITU-T G.651), DS(ITU-T G.653), NTZDS(ITU-T G.655), IT-G657A, ITG657B 0.25mm, 0.9mm, 2.0mm, 2.4mm, 3.0mm, FLAT(indoor cable)
Cleaved length	Coating Diameter <0.25mm = 8-16mm, Coating Diameter >0.25mm = 16mm minimum
Coating diameter	100-1000um
Cladding diameter	80-150um
Heating programs	Factory installed mode:11, User installable mode:23
Heating time	Typical 18s
Protection sleeve	40mm, 60mm, SOC Connector
Data output	Micro HDMI-USB master device
Splice programs	33, User installable mode: 70+
Splice memory	Up to 2000 records and 2000 splice images
Battery	Typical 200 Cycles (Splice & Heat) / single battery <2 Batteries Standard>
Power supply	AC 100-240V input or DC 9-14V
Monitor	Colour 4.3" LCD monitor, with Touch Screen
	(Tempered Glass)
Cameras	2 CCD camera system
Magnification	XY: 150 times, X/Y: 300 power
Fibre display	X/Y or XY, singleX.Y
Weight	1.39Kg (without battery)
Size	122mm X 124mm X 138mm
Wind protection	The max wind speed 15m/s
Operating environment	Elevation 0-5000 meters, -15-60°C, 0-95% relative humidity
Storage condition	Temperature -40 to 80°C, 0-95% relative humidity, battery -20-30°C
Pull test	1.96-2.25N (standard)

Splice-on Connectors

BCC NetSys-Opt™ Cabling System

BRITISH CABLES COMPANY

Product summary

BCC NetSys splice-on connectors provide a convenient low loss alternative to using pigtails to field terminate fibre cable. The connector is supplied ready terminated with a short length of fibre, which can be directly spliced to installed cable. The splice is then protected within the specially designed connector boot, removing need for additional splice trays or housings.

Used in conjunction with BCC NetSys Fusion Splicers, the connectors offer a quick to use, high quality, low insertion loss, low return loss, fully compliant solution.

Features & benefits

- Compliant with IEX51754-4, KS C6974(F04), JIS C5973(F04)
- Compliant with Telcrdia GR-326-core
- Able to terminate the fibre with a connector in the field
- Jointing point is located inside of the connector
- Higher quality, better insertion loss and return loss
- Easy to assemble with one step system
- Comes in pack of 10

Part no	Description
23-XX-SOC-SCPC	BCC NetSys SOC SC PC Connector
23-XX-SOC-SCAPC	BCC NetSys SOC SC Connector APC
23-XX-SOC-LCPC	BCC NetSys SOC LC PC Connector
23-XX-SOC-LCAPC	BCC NetSys SOC LC APC Connector
23-XX-SOC-FCPC	BCC NetSys SOC FC PC Connector
23-XX-SOC-STPC	BCC NetSys SOC ST PC Connector

Item	Specification
General connector	
Available fibre type	Singlemode OS2, Multimode OM1,OM2,OM3
Insertion loss	UPC ≤ 0.2dB, APC ≤ 0.2dB
Return loss	SM UPC ≤ 50dB, APC ≤ 60dB MM UPC -, APC -
Repeating test	500 Cycles, ≤0.2dB
Operation test	-45°C - 85°C
SC connector	75°C for 96 hours =0.2 dB change (IEC 61300-2-18)
Type of fibre	0.9mm fibre, 2.0mm, 2.4mm, 3.0mm cable, 3X2 indoor cable
Tensile force	≥30N(≥3.1kgf) for 3.0mm code or 0.9mm fibre/≥80N(≥8.0kgf) for 3X2 indoor cable
LC connector	<0.20 dB typical change 1000 matings
Type of fibre	2.0mm Code, 3.0mm cable, 3X2 indoor cable
Tensile force	≥30N(≥3.1KGF) for 2.0mm code/≥50N(5.1kgf) for 3.0mm Cable or 3X2 Indoor Cable

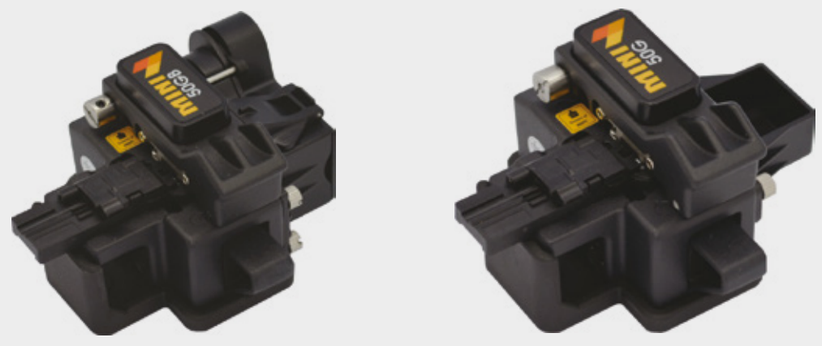
XX can be replaced with the below to denote quantity

OM1= OM1	OM2= OM2	OS2= OS2
OM3= OM3	OM4= OM4	

High Performance Mini Precision Cleaver

BCC NetSys-Opt™ Cabling System

BRITISH CABLES COMPANY



Product summary

BCC NetSys cleaver series bring maximum portability and convenience to any customers who work under various environmental conditions.

Features & benefits

- Universal Holder 250um,900um, 2-3Ø Indoor
- The most precise mini cleaver
- Blade life span ≤0.5 : 50,000
- Robust and shock resistant
- Chip collector (50GB)

Part no	Description
23-50GB-CL	BCC NetSys Mini 50gb Cleaver (with Auto collect tray)
23-XX-SOC-LCPC	BCC NetSys Cleaver Blade

Item	Specification
Type	Single fibre
Applicable fibre	250um, 900um, Φ2mm, Φ3mm, Drop Cable
Clad diameter	80-125um
Length	8-20mm (single fibre)
Cleaving angle	≤0.5
Lifespan of blade	50,000 times
Operation step	2 Steps/Auto Pushback Slider Block
Holder	Universal holder
Collector	Auto collector (50GB)
Weight	50G (221G) - 50GB (248G)
Type of fibre	2.0mm Code, 3.0mm cable, 3X2 indoor cable
Tensile force	≥30N(≥3.1KGF) for 2.0mm code/≥50N(5.1kgf) for 3.0mm Cable or 3X2 Indoor Cable

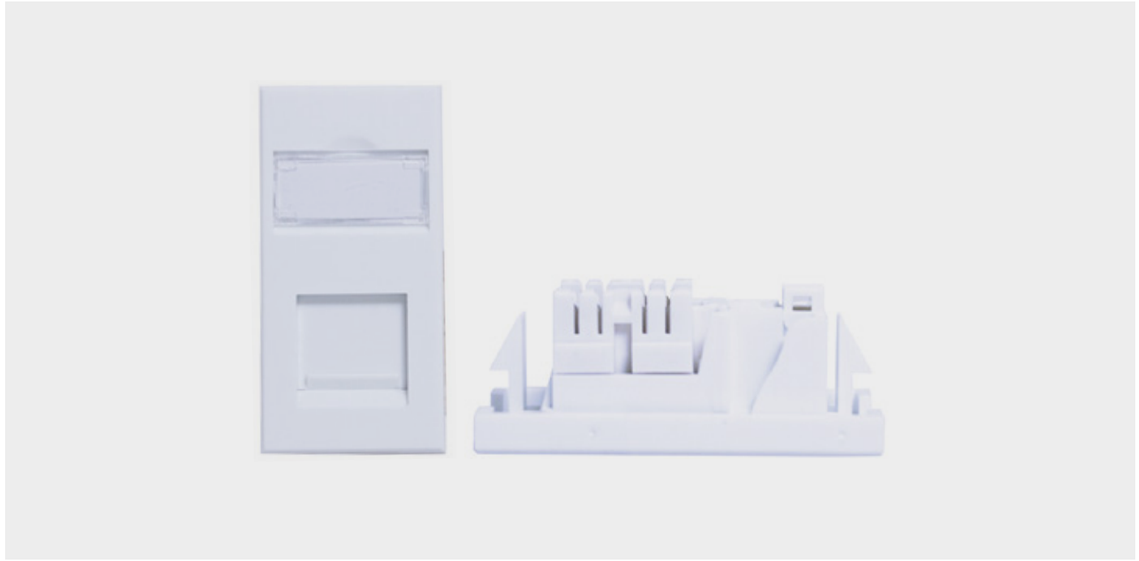
BCC NetSys-100™

Cat 5e Stuctured Cabling Systems

UTP Compact Module

BCC NetSys-100™ Cabling System

BRITISH CABLES COMPANY



Product summary

The BCC NetSys Enhanced Category 5 UTP Compact Module is designed to provide one of the shallowest wall outlets on the market. They are the ideal solution wherever back-box depth is a problem. The attractive high gloss finish and easy to use labelling system are identical to all other systems modules, making them interchangeable in most applications.

Enhanced Category 5 Compact Modules can be fitted into single or dual gang faceplates and can be combined with quarter blanks and/or voice modules to provide the required configuration. The modules offer extended PowerSum characteristics and exceed the ANSI/TIA-568-C specifications. When combined with BCC NetSys Enhanced Category 5 Patch Panels and UTP Cable the link will perform well in excess of the Enhanced Category 5 Specification.

Features & benefits

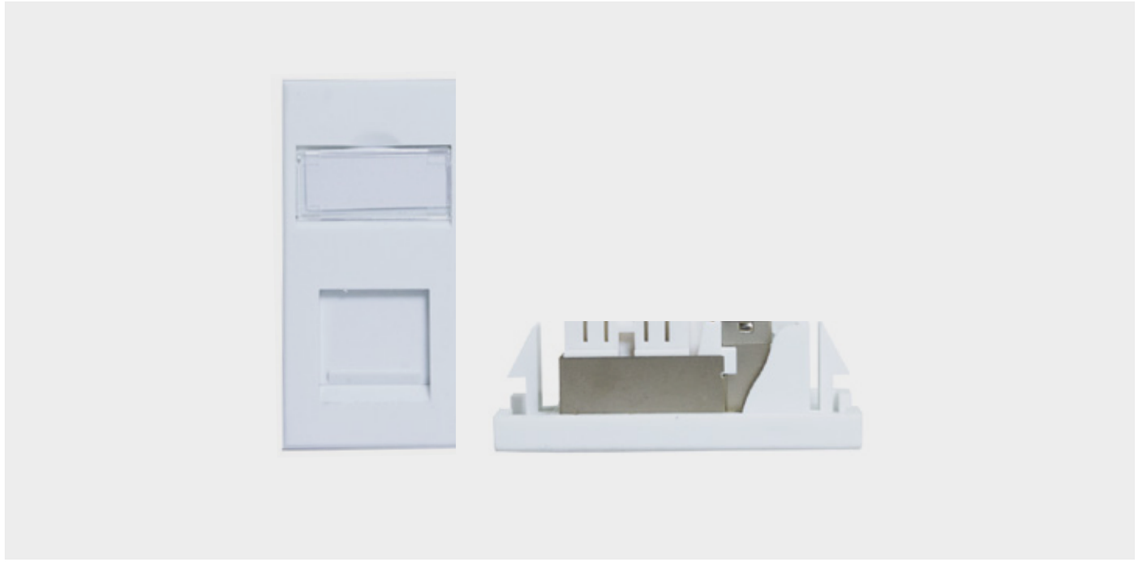
- Suitable for Gigabit Ethernet applications
- Shallow design requires minimal back-box depth
- Interchangeable with other Euro modules and 1⁄4 blanks
- Industry standard IDCs
- Individually QA tested
- Also available as PABX Secondary or Full Master Voice Module

Part no	Description
58-C5EU-EM	BCC NetSys Cat 5e UTP Compact Euro Module
51-1G2MSF	One Gang, Two Mod, Standard Faceplate
51-2G4MSF	Two Gang, Four Mod, Standard Faceplate
51-1G2MOF	One Gang, Two Mod, Office Faceplate
51-2G4MOF	Two Gang, Four Mod, Office Faceplate
51-FPB025	Faceplate Blank 1/4
51-FPB050	Faceplate Blank 1/2

Item	Specification
Width (mm)	25
Depth (mm)	22
Height (mm)	50
Back-box Depth (mm)	Minimum 15mm recommended
Material	Polycarbonate/ABS thermoplastic resin, with grade UL94 VO at 1.5mm flame retardancy
Finish	High gloss
IDC labels	Individual colour coded labels to T568B
IDC blocks	4 way industry standard IDC blocks
Conforms to	ANSI/TIA-568-C Enhanced Category 5 Specification

FTP Compact Module

BCC NetSys-100™ Cabling System



Product summary

The BCC NetSys Enhanced Category 5 FTP Compact Module is designed to provide one of the shallowest wall outlets on the market. They are the ideal solution wherever back-box depth is a problem. The attractive high gloss finish and easy to use labelling system are identical to all other systems modules, making them interchangeable in most applications.

Enhanced Category 5 Compact Modules can be fitted into single or dual gang faceplates and can be combined with quarter blanks and/or voice modules to provide the required configuration. The modules offer extended PowerSum characteristics and exceed the ANSI/TIA-568-C specifications. When combined with BCC NetSys Enhanced Category 5 Patch Panels and FTP Cable the link will perform well in excess of the Enhanced Category 5 Specification.

Features & benefits

- Suitable for Gigabit Ethernet applications
- Shallow design requires minimal back-box depth
- Interchangeable with other Euro modules and 1⁄4 blanks
- Industry standard IDCs
- Individually QA tested
- Also available as PABX Secondary or Full Master Voice Module

Part no	Description
58-C5EF-EM	BCC NetSys Cat 5e UTP Compact Euro Module
51-1G2MSF	One Gang, Two Mod, Standard Faceplate
51-2G4MSF	Two Gang, Four Mod, Standard Faceplate
51-1G2MOF	One Gang, Two Mod, Office Faceplate
51-2G4MOF	Two Gang, Four Mod, Office Faceplate
51-FPB025	Faceplate Blank 1/4
51-FPB050	Faceplate Blank 1/2

Item	Specification
Width (mm)	25
Depth (mm)	22
Height (mm)	50
Back-box Depth (mm)	Minimum 15mm recommended
Material	Polycarbonate/ABS thermoplastic resin, with grade UL94 VO at 1.5mm flame retardancy
Finish	High gloss
IDC labels	Individual colour coded labels to T568B
IDC blocks	4 way industry standard IDC blocks
Conforms to	ANSI/TIA-568-C Enhanced Category 5 Specification

UTP LJ6C Module

BCC NetSys-100™ Cabling System

Product summary

The BCC NetSys Enhanced Category 5 UTP LJ6C Compact Module is designed to provide one of the shallowest outlets on the market. They are the ideal solution wherever back box depth is a problem. LJ6C Modules are ideal for use in floorboxes, or any application that has an industry standard LJ6C aperture. Single and dual gang faceplates are available for up to four LJ6C modules in addition to panels suitable for Ackerman Floorboxes. Their attractive high gloss finish and easy to use labelling system makes them popular with both installers and users alike. Installation is made easy with individual colour codes and the use of industry standard IDCs.

BCC NetSys Enhanced Category 5 LJ6C Modules offer extended PowerSum characteristics and exceed the ANSI/TIA- 568-C specifications. When combined with BCC NetSys Enhanced Category 5 Patch Panels and UTP Cable, the link will perform well in excess of the Enhanced Category 5 Specification.

Features & benefits

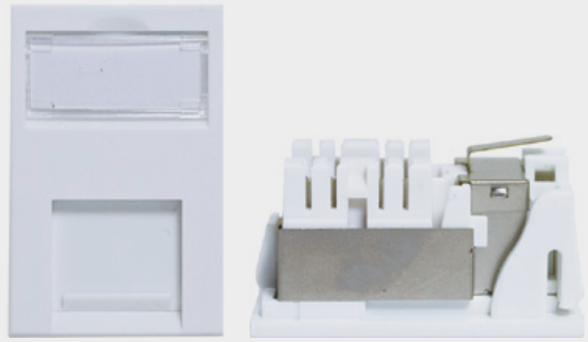
- Shallow design requires minimal back-box depth
- Industry standard LJ6C size
- Industry standard IDCs
- Individually QA tested

Part no	Description
58-C5EU-LJ6	BCC NetSys Cat 5e UTP Compact LJ6C Module
51-1G2MSF-LJ6	One Gang, Two Mod, Standard Faceplate
51-2G4MSF-LJ6	Two Gang, Four Mod, Standard Faceplate
51-1G2MOF-LJ6	One Gang, Two Mod, Office Faceplate
51-2G4MOF-LJ6	Two Gang, Four Mod, Office Faceplate
51-FPB025-LJ6	Faceplate Blank 1/4
51-FPB050-LJ6	Faceplate Blank 1/2

Item	Specification
Width (mm)	25
Depth (mm)	19.5
Height (mm)	38.5
Back-box Depth (mm)	Minimum 20mm with panel, 15mm with faceplate
Mounting hold size	22.3mm x 36.7mm
Panel thickness	2.0mm max
Material	Polycarbonate/ABS thermoplastic resin with grade UL94 VO at 1.5mm flame retardency
Finish	High gloss
IDC labels	Individual colour code
Cable Guide	Integrated cable tie position
IDC blocks	4 way industry standard IDC blocks
Conforms to	ANSI/TIA-568-C Enhanced Category 5 Specification

FTP LJ6C Module

BCC NetSys-100™ Cabling System



Product summary

The BCC NetSys Enhanced Category 5 FTP LJ6C Compact Module is designed to provide one of the shallowest outlets on the market. They are the ideal solution wherever back box depth is a problem. LJ6C Modules are ideal for use in floorboxes, or any application that has an industry standard LJ6C aperture. Single and dual gang faceplates are available for up to four LJ6C modules in addition to panels suitable for Ackerman Floorboxes. Their attractive high gloss finish and easy to use labelling system makes them popular with both installers and users alike. Installation is made easy with individual colour codes and the use of industry standard IDCs.

BCC NetSys Enhanced Category 5 LJ6C Modules offer extended PowerSum characteristics and exceed the ANSI/TIA- 568-C specifications. When combined with BCC NetSys Enhanced Category 5 Patch Panels and FTP Cable, the link will perform well in excess of the Enhanced Category 5 Specification.

Features & benefits

- Shallow design requires minimal back-box depth
- Industry standard LJ6C size
- Industry standard IDCs
- Individually QA tested

Part no	Description
58-C5EU-LJ6	BCC NetSys Cat 5e FTP Compact LJ6C Module
51-1G2MSF-LJ6	One Gang, Two Mod, Standard Faceplate
51-2G4MSF-LJ6	Two Gang, Four Mod, Standard Faceplate
51-1G2MOF-LJ6	One Gang, Two Mod, Office Faceplate
51-2G4MOF-LJ6	Two Gang, Four Mod, Office Faceplate
51-FPB025-LJ6	LJ6C Blank 1/4
51-FPB050-LJ6	LJ6C Blank 1/2

Item	Specification
Width (mm)	25
Depth (mm)	19.5
Height (mm)	38.5
Back-box Depth (mm)	Minimum 20mm with panel, 15mm with faceplate
Mounting hold size	22.3mm x 36.7mm
Panel thickness	2.0mm max
Material	Polycarbonate/ABS thermoplastic resin with grade UL94 VO at 1.5mm flame retardency
Finish	High gloss
IDC labels	Individual colour code
Cable Guide	Integrated cable tie position
IDC blocks	4 way industry standard IDC blocks
Conforms to	ANSI/TIA-568-C Enhanced Category 5 Specification

4000 Series Vertical Outlet

BCC NetSys-100™ Cabling System

Product summary

The BCC NetSys 4000 Series offers Enhanced Category 5 performance in a High Density package.

The BCC NetSys 4000 Series is extremely quick and easy to install; just attach the base plate, snap in the PCB, punch down the cables and install the cover. Gone are the problems of installing modules into a faceplate and pushing excess wires into a back box.

The 4000 Series Outlets have been designed for direct wall mounting with top entry mini trunking. In addition, they fit on a standard back box to provide maximum mounting flexibility. The position of the sockets on the Vertical Outlet allow for a compact installation without protruding leads.

Features & benefits

- High Density, single gang unit
- Available in a 2 or 4 port version
- Enhanced Category 5 performance
- No protruding leads
- Designed for direct wall mounting
- Custom logo service available

Part no	Description
58-C5E-4WVWO	BCC NetSys Cat 5e 4 Way Vertical Wall Outlet
58-C5E-2WVWO	BCC NetSys Cat 5e 2 Way Vertical Wall Outlet

Item	Specification
Width (mm)	87
Depth (mm)	27
Height (mm)	87
Material	ABS thermoplastic resin, with grade UL94 VO at 1.5mm flame retardancy
Finish	High Gloss
IDC Colour	Code IDC Colour code to T568B
IDC blocks	Industry standard IDC blocks
PCB	1.6mm double sided PTH boards
Conforms to	ANSI/TIA-568-C Enhanced Category 5 Specification

4000 Series Tamperproof Outlet

BCC NetSys-100™ Cabling System

Product summary

The BCC NetSys 4000 Series offers Enhanced Category 5 performance in a High Density package. The Tamperproof outlet restricts the user's access to patch leads, eliminating unauthorised or accidental patch lead disconnection which is one of the most common causes of network problems.

The 4000 Series is extremely quick and easy to install; just attach the base plate, snap in the PCB, punch down the cables and install the cover. But the Tamperproof version has the added benefit that leads cannot be unplugged without first removing the cover, and the position of the sockets allow for a compact installation without protruding leads. The 4000 Series outlets have been designed for direct wall mounting with top entry mini trunking. In addition, they fit on a standard back box to provide maximum mounting flexibility.

Features & benefits

- Tamperproof design
- High density, single gang unit
- Available in a 2 or 4 port version
- Enhanced Category 5 performance
- Designed for direct wall mounting
- Custom logo service available

Part no	Description
58-C5E-4WTWO	Cat 5e 4 Way Tamperproof Wall Outlet
58-C5E-2WTWO	Cat 5e 2 Way Tamperproof Wall Outlet

Item	Specification
Width (mm)	87
Depth (mm)	27
Height (mm)	87
Height (including tamperproof cover)	120
Spacer plate depth (mm)	8
Material	ABS thermoplastic resin, with grade UL94 VO at 1.5mm flame retardancy
Finish	High Gloss
IDC Colour	Code IDC Colour code to T568B
IDC blocks	4 Way Industry standard IDC blocks
PCB	1.6mm double sided PTH boards
Conforms to	ANSI/TIA-568-C Enhanced Category 5 Specification

Keystone Module

BCC NetSys-100™ Cabling System

Product summary

BCC NetSys Tool-less Keystone Modules ensure a quick and easy to terminate installation. The snap-fit to terminate design means that a punch down tool is not required.

The module offers a high performance transmission that meets or exceeds Cat5e standards. They have been designed to be installed into most UK and European keystone applications, including standard or angled faceplate products, patch panels or surface boxes. The loading cap is colour coded to T568B standards to ensure a quick and easy installation.

Features & benefits

- Quick and easy to install
- Snap-fit to terminate
- Suitable for all standard keystone applications
- Integrated cable tie position
- Category 5e hardware performance
- T568B colour coded wiring terminals

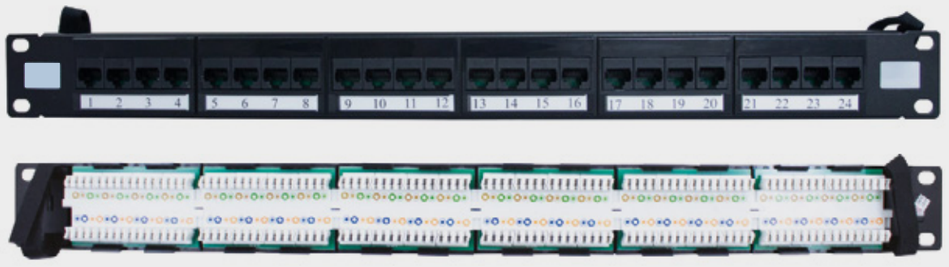
Part no	Description
53-C5EU-TL	BCC NetSys Cat 5e Tool-less Keystone Module - Unshielded
51-ASFSF	BCC NetSys Angled Shuttered Euro Fascia

Item	Specification
Width (mm)	16.3
Depth (mm)	31.5
Height (mm)	21
Mounting hold size	19.3mm x 14.7mm
Material	Polycarbonate/ABS thermoplastic resin with grade UL94 VO at 1.5mm flame retardency
IDC labels	Colour coded to T568A and T568B
IDC blocks	Tool-less IDC mechanism
Conforms to	ANSI/TIA-568-C Enhanced Category 5 Specification

UTP High Density Patch Panel

BCC NetSys-100™ Cabling System

BRITISH CABLES COMPANY



Product summary

BCC NetSys Enhanced Category 5 High Density Elite Patch Panels provide exceptional performance for high speed LANs including Gigabit Ethernet applications. The High Density format is ideal where cabinet space is at a premium.

The panels achieve optimum transmission performances by incorporating the highest quality components and innovative on-board compensation techniques. The front of the panel features easy to use slide in labels and the rear utilities colour coded cable saddles and hook and loop cable retainers.

All BCC NetSys Enhanced Category 5 Panels offer extended PowerSum characteristics and exceed the ANSI/TIA-568-C specifications, and when combined with BCC NetSys Enhanced Category 5 Modules and UTP Cable, the link will perform well in excess of the Enhanced Category 5 Specification.

Features & benefits

- Suitable for Gigabit Ethernet applications
- Individual colour coded saddles allow quick and accurate terminations
- Top quality sockets
- Fully QA tested
- Optional Cable management tray

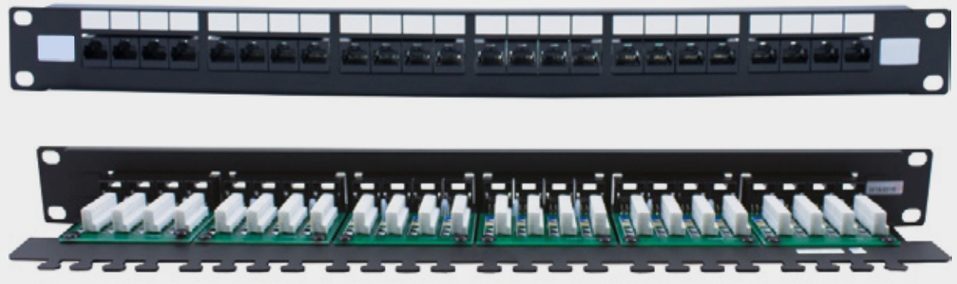
Part no	Description
50-5U24-1U-E	BCC NetSys 24 Way UTP Patch Panel
50-5U48-2U-E	BCC NetSys 48 Way UTP Patch Panel

Item	Specification
Width (mm)	483 (19")
Depth (mm)	30
Height (mm)	1u (44mm)
Fixing centres (mm)	467
Material	Mild steel sheet CR4 to BSEN 10130-1999 DC01, Plastic inserts ABS thermoplastic resin with grade, UL94 V0 at 1.5mm flame retardancy
Finish	Black powder coated to BS6496
Socket labels	9mm numbered card to BS6496
IDC labels	Individual colour coded labels to T568B
Cable Guide	Individual cabling saddles with cable tie
IDC blocks	4 way industry standard IDC blocks
PCB	Groups of 4 identical circuits on 1.6mm double sided PTH boards
Conforms to	ANSI/TIA-568-C Enhanced Category 5 Specification

UTP Right Angled High Density Patch Panel

BCC NetSys-100™ Cabling System

BRITISH CABLES COMPANY



Product summary

The BCC NetSys UTP Right Angles Patch Panel is an alternative to The Enhanced Category 5 High Density Panel. It offers the same Enhanced Category 5 performance as the standard panel but has been designed to present the cable termination IDCs horizontally on a tray at the rear of the panel, making termination and Cable management easier.

BCC NetSys Enhanced Category 5 24 Way Panels achieve optimum transmission performance by incorporating the highest quality components and innovative on-board compensation techniques. The front of the panel features write on designation labels. This panel offers extended PowerSum characteristics and exceeds the ANSI/TIA-568-C specifications. When combined with BCC NetSys Enhanced Category 5 Modules and UTP Cable the link will perform well in excess of the Enhanced Category 5 Specification.

Features & benefits

- Easy to install
- Simple cable management
- Suitable for Gigabit Ethernet applications
- Can be configured with copper and fibre to suit individual requirements
- Mix and match copper and fibre in one panel

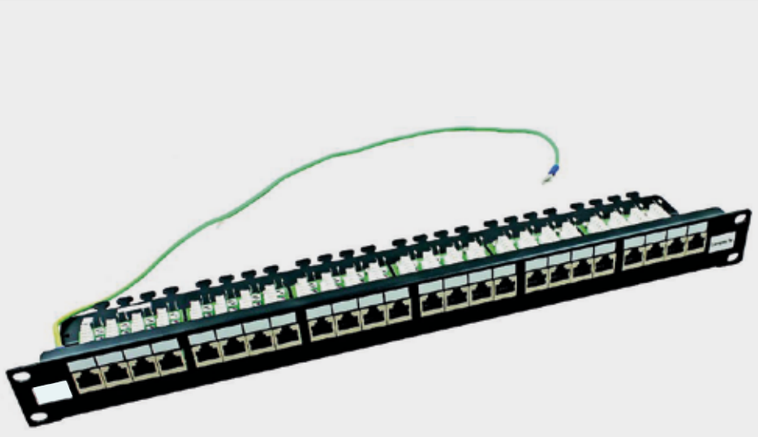
Part no	Description
50-5U24-1U-A	BCC NetSys 24 Way UTP Right-Angled Patch Panel

Item	Specification
Width (mm)	483 (19")
Depth (mm)	30
Height (mm)	1u (44mm)
Fixing centres (mm)	467
Material	Mild steel sheet CR4 to BSEN 10130-1999 DC01
Finish	Matt black polyester paint
Socket labels	Write-on silk screen on panel front
Cable management	Improved cabling facility with easy to use cable tie positions for left and right cable entry
IDC Labelling	Colour coded to T568B
IDC blocks	Industry standard 4 way IDC's
Conforms to	ANSI/TIA-568-C Enhanced Category 5 Specification

FTP Right Angled High Density Patch Panel

BCC NetSys-100™ Cabling System

BRITISH CABLES COMPANY



Product summary

The BCC NetSys FTP Right Angled Patch Panel is an alternative to the Standard Enhanced Category 5 FTP Panel. It offers the same Enhanced Category 5 performance as the standard panel but has been designed to present the cable termination IDCs horizontally on a tray at the rear of the panel, making termination and Cable management easier.

All sockets in the panel are commonly linked through the panel and can be grounded to the rack using the earth wire provided. Enhanced Category 5 panels provide exceptional performance for high speed LANs including Gigabit Ethernet applications in an easy to use format. When combined with BCC NetSys Enhanced Category 5 FTP Modules and Cable, the link will perform well in excess of the Enhanced Category 5 specifications.

Features & benefits

- Easy to install
- Suitable for Gigabit Ethernet applications
- High Density 24 Port
- Rear cover to protect termination and improve shielding
- Mix and match copper and fibre in one panel
- Manufactured in the UK

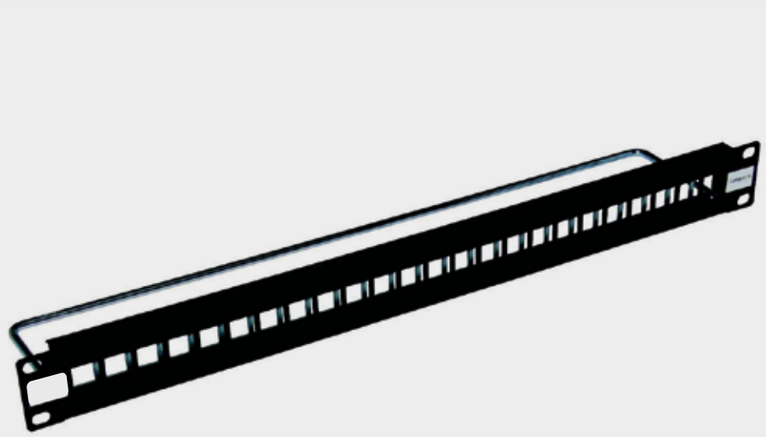
Part no	Description
50-5F24-1U-A	BCC NetSys 24 Way FTP Right-Angled Patch Panel

Item	Specification
Width (mm)	483 (19")
Depth (mm)	98
Height (mm)	1u (44mm)
Fixing centres (mm)	467
Material	Mild steel sheet CR4 to BSEN 10130-1999 DC01
Finish	Matt black polyester paint
Socket labels	Write-on silk screen on panel front
Cable management	Improved cabling facility with easy to use cable tie positions for left and right cable entry
IDC Labelling	Colour coded to T568B
IDC blocks	Industry standard 4 way IDC's
Conforms to	ANSI/TIA-568-C Enhanced Category 5 Specification

Unloaded UTP Keystone Patch Panel

BCC NetSys-100™ Cabling System

BRITISH CABLES COMPANY



Product summary

The BCC NetSys Enhanced Category 5 UTP Keystone Patch Panels offer high density and the capability for 10G data transmission performance levels.

Supplied unloaded - the patch panel installation and termination time can be greatly reduced when BCC NetSys Tool-less Snap-to-fit Keystone Modules are used in the panel. To further increase on-site installation efficiency, BCC NetSys Express Pre-terminated and Pre-tested Modules can also be used.

Features & benefits

- Fully shielded
- High density, 24/48 ports
- Suitable for UTP Tool-less Keystone Modules
- Suitable for BCC NetSys Express assemblies
- Integrated cable management tray
- Earth connection
- Robust all steel construction

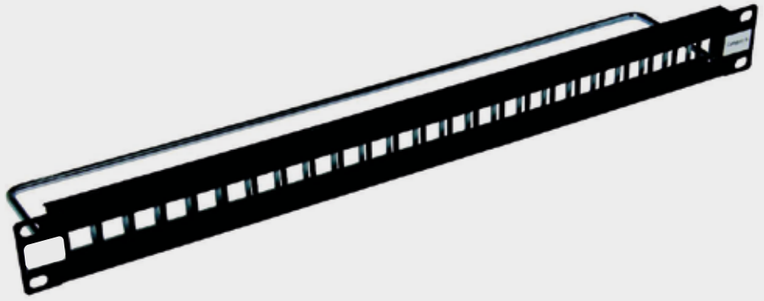
Part no	Description
50-5U24-1U-M	BCC NetSys 24 Way Unloaded UTP Patch Panel
50-5U48-2U-M	BCC NetSys 48 Way Unloaded UTP Patch Panel

Item	Specification
Width (mm)	483 (19")
Depth (mm)	155
Height (mm)	44.45
Material	Mild steel
Finish	Fine textured black paint (front) Bright zinc plate (rear)

Unloaded FTP Keystone Patch Panel

BCC NetSys-100™ Cabling System

BRITISH CABLES COMPANY



Product summary

The BCC NetSys unloaded FTP Keystone Patch Panel offer high density and the capability for 10G data transmission performance levels.

Supplied unloaded - the patch panel installation and termination time can be greatly reduced when BCC NetSys Tool-less Snap-to-fit Keystone Modules are used in the panel. To further increase on-site installation efficiency, BCC NetSys Express Pre-terminated and Pre-tested Modules can also be used.

Features & benefits

- Fully shielded
- High density, 24/48 ports
- Suitable for FTP Tool-less Keystone Modules
- Suitable for BCC NetSys Express assemblies
- Integrated cable management tray
- Earth connection
- Robust all steel construction

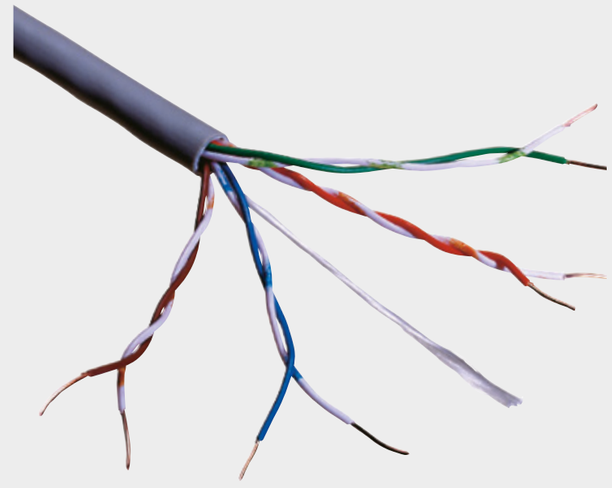
Part no	Description
50-5F24-1U-M	BCC NetSys 24 Way Unloaded FTP Patch Panel
50-5F48-2U-M	BCC NetSys 48 Way Unloaded UTP Patch Panel

Item	Specification
Width (mm)	483 (19")
Depth (mm)	155
Height (mm)	44.45
Material	Mild steel
Finish	Fine textured black paint (front) Bright zinc plate (rear)

UTP Solid Cable

BCC NetSys-100™ Cabling System

BRITISH CABLES COMPANY



Product summary

The BCC NetSys Enhanced Category 5 UTP Cable is designed for high speed LANs including Gigabit Ethernet applications.

When used with BCC NetSys Enhanced Category 5 panels and modules it gives the exceptional performance required for transmission over all four pairs. The cable is supplied in easy to use Reelex boxes and is available with standard Grey PVC, Violet HFFR or black PE outer sheaths. Available in CPR Euroclassification Dca, Eca and Fca.

Features & benefits

- Suitable for Gigabit Ethernet applications
- PVC, HFFR or PE outer sheaths
- Supplied metre marked in Reelex boxes for easy installation
- Pure copper cores
- Excellent performance exceeding ANSI/TIA Enhanced Category 5 specifications

Part no	Description	Euroclass
BCCXCM0905EYN08	Cat 5e UTP PVC Solid Cable (Grey)	Eca
BCCXCM0905EYZ07	Cat 5e UTP HFFR Solid Cable (Violet)	Eca
BCCXCM0905EYT00	Cat 5e UTP Solid External Cable (Black)	Fca
BCCXCMD56OUZ07	Cat 5e UTP Solid Cable (Violet)	Dca - s/b, d2, a2

Item	Specification
Inner conductor	24 AWG plain copper
Installation	High density polyethylene
Construction	4 twisted pairs cabled together
Colour code	Pair 1: White/Blue-Blue/White Pair 2: White/Orange-Orange/White Pair 3: White/Green-Green/White Pair 4: White/Brown-Brown/White
Jacket	PVC, PE (external) or Low Smoke Zero Halogen
Overall diameter	5.0 +/- 0.2mm
Weight (Kg/Km)	31
Min bending radius installation	20mm
Impedance	100 MHz +/- 15Ω
Capacitance	<5.6nF/100m
DC resistance	<9Ω/100m
Velocity ratio	69%
Operating temp range	-20°C to + 70°C
Installation temp range	0°C to + 50°C
Conforms to	ANSI/TIA-568-C Enhanced Category 5 Specification

BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 5e U/UTP Cable - B2ca-s1a, d1, a1

B2ca-s1a, d1, a1
DoP: BCC1001

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
This cable is suitable for internal use of Local Area Networks and Analogue & Digital video applications

Category
5e Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-3-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Ripcord
Nylon

4. Sheath
LSZH - Orange

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.49 (±0.01)	0.88 (±0.05)	5.00 (±0.2)	28	-20 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	98	5.6	65	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	65.3	62.3	63.8	60.8	20.0	45
4	4.1	56.3	55.3	51.8	48.8	23.0	45
8	5.8	51.8	48.8	45.7	42.7	24.5	45
10	6.5	50.3	47.3	43.8	40.8	25.0	45
16	8.2	47.2	44.2	39.7	36.7	25.0	45
20	9.3	45.8	42.8	37.8	34.8	25.0	45
25	10.4	44.3	41.3	35.8	32.8	24.3	45
31.25	11.7	42.9	39.9	33.9	30.9	23.6	45
62.5	17.0	38.4	35.4	27.9	24.9	21.5	45
100	22	35.3	32.3	23.8	20.8	20.1	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 5e U/UTP Cable - Cca-s1a, d1, a1

Cca-s1a, d1, a1
DoP: BCC1002

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
This cable is suitable for internal use of Local Area Networks and Analogue & Digital video applications

Category
5e Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-3-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Ripcord
Nylon

4. Sheath
LSZH - Green

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.49 (±0.01)	0.88 (±0.05)	5.00 (±0.2)	28	-20 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	98	5.6	65	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	65.3	62.3	63.8	60.8	20.0	45
4	4.1	56.3	55.3	51.8	48.8	23.0	45
8	5.8	51.8	48.8	45.7	42.7	24.5	45
10	6.5	50.3	47.3	43.8	40.8	25.0	45
16	8.2	47.2	44.2	39.7	36.7	25.0	45
20	9.3	45.8	42.8	37.8	34.8	25.0	45
25	10.4	44.3	41.3	35.8	32.8	24.3	45
31.25	11.7	42.9	39.9	33.9	30.9	23.6	45
62.5	17.0	38.4	35.4	27.9	24.9	21.5	45
100	22	35.3	32.3	23.8	20.8	20.1	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 5e U/UTP Cable - Eca

Eca
DoP: BCC1003

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
This cable is suitable for internal use of Local Area Networks and Analogue & Digital video applications

Category
5e Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-3-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Ripcord
Nylon

4. Sheath
LSZH - Violet

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.49 (±0.01)	0.88 (±0.05)	5.00 (±0.2)	28	-20 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	98	5.6	65	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	65.3	62.3	63.8	60.8	20.0	45
4	4.1	56.3	55.3	51.8	48.8	23.0	45
8	5.8	51.8	48.8	45.7	42.7	24.5	45
10	6.5	50.3	47.3	43.8	40.8	25.0	45
16	8.2	47.2	44.2	39.7	36.7	25.0	45
20	9.3	45.8	42.8	37.8	34.8	25.0	45
25	10.4	44.3	41.3	35.8	32.8	24.3	45
31.25	11.7	42.9	39.9	33.9	30.9	23.6	45
62.5	17.0	38.4	35.4	27.9	24.9	21.5	45
100	22	35.3	32.3	23.8	20.8	20.1	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 5e U/UTP Cable - Eca-PVC Sheathed

Eca
DoP: BCC1008

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
This cable is suitable for internal use of Local Area Networks and Analogue & Digital video applications

Category
5e Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-3-1
EN 50575:2014/A1:2016
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Ripcord
Nylon

4. Sheath
LSZH - Grey

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.49 (±0.01)	0.88 (±0.05)	5.00 (±0.2)	28	-20 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	98	5.6	65	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	65.3	62.3	63.8	60.8	20.0	45
4	4.1	56.3	55.3	51.8	48.8	23.0	45
8	5.8	51.8	48.8	45.7	42.7	24.5	45
10	6.5	50.3	47.3	43.8	40.8	25.0	45
16	8.2	47.2	44.2	39.7	36.7	25.0	45
20	9.3	45.8	42.8	37.8	34.8	25.0	45
25	10.4	44.3	41.3	35.8	32.8	24.3	45
31.25	11.7	42.9	39.9	33.9	30.9	23.6	45
62.5	17.0	38.4	35.4	27.9	24.9	21.5	45
100	22	35.3	32.3	23.8	20.8	20.1	45

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BCC Data-Tec™ - Networking Cable - F/UTP

4 Pair Cat 5e F/UTP Cable - Dca-s2, d2, a1

Dca - s2, d2, a1
DoP: BCC1007

CPR COMPLIANT

BCC BRITISH CABLES COMPANY

Applications
This cable is suitable for internal use of Local Area Networks and Analogue & Digital video applications

Category
5e Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-2-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Ripcord
Nylon

4. Screen
Al Foil

5. Drain Wire
Tinned Copper

6. Sheath
LSZH –Blue

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.5 (±0.01)	1.04 (±0.05)	6.10 (±0.3)	34	-10 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	93.8	5.6	66	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.1	65.3	62.3	63.8	60.8	20.0	45
4	4.1	56.3	55.3	51.8	48.7	23.0	45
8	5.8	51.8	48.8	45.7	42.7	24.5	45
10	6.5	50.3	47.3	43.8	40.8	25.0	45
16	8.2	47.3	44.3	39.7	36.7	25.0	45
20	9.3	45.8	42.8	37.7	34.7	25.0	45
25	10.4	44.3	41.3	35.8	32.8	24.3	45
31.25	11.7	42.9	39.9	33.9	30.9	23.6	45
62.5	17.0	38.4	35.4	27.8	24.8	21.5	45
100	22	35.3	32.3	23.8	20.8	20.1	45

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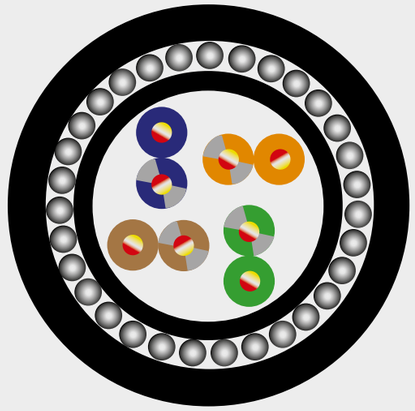
Solid SWA Cable

BCC NetSys-100™ Cabling System

BCC BRITISH CABLES COMPANY



Product summary
BCC NetSys Enhanced Category 5 cable is designed for use in next generation data communications networks, and will comfortably support all present applications including Gigabit Ethernet.

BCC NetSys Category 5e UTP Solid Cable offers the performance characteristics required by the ever present Category 5e Standard. When used in conjunction with BCC NetSys Category 5e Modules and Patch Panels the user will get a link performance exceeding Category 5e requirements.

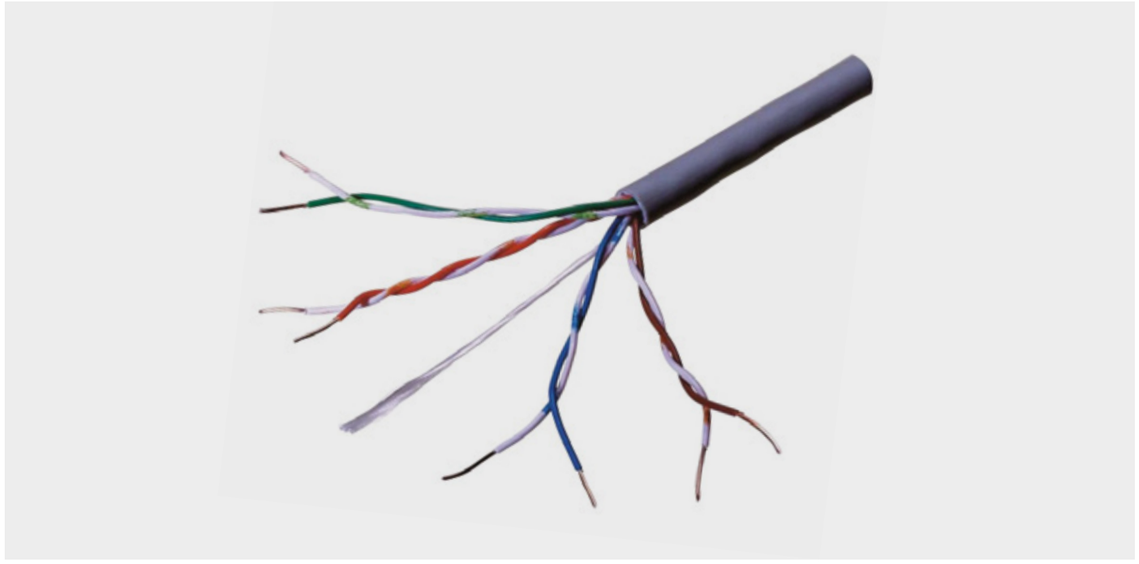
Features & benefits
- Suitable for direct burial
- Rodent proof and waterproof
- Suitable for Gigabit Ethernet
- Performance exceeding Category 5e specifications

Part no	Description	Euroclass
BCCWAM2KJEFPOOD	Cat 5e FUTP PE Solid SWA Cable (Black)	Fca

Item	Specification
Temperature range - in service	-20°C to +60°C
Temperature range - at installation	-0°C to +50°C
Temperature range -rransport & storage	-0°C to +50°C
Max pulling tension	80 N
Weight	29 kg/km
Conductor	Solid bare copper wire (24AWG) - 0.510mm
Installation	Polyethylene - 0.90mm
No. of pairs	4
Armour	DataGuard Steel Wire Armour
Conductor resistance	< 190 Ω/km
Resistance unbalance	<2%
Dialectric strength	1kV during 1min = no breakdown
Insulation resistance (500V)	> 5000 M Ω/km
Capacitance unbalance real-ground	< 1600 pF/km
Characteristic impedance at 100 MHz	100 + 5Ω
Nominal velocity	66%
Bending radius - installation	> 40mm
Bending radius - installed	> 20mm

Patch Cable

BCC NetSys-100™ Cabling System



Product summary

BCC NetSys Enhanced Category 5 Unshielded Twisted Pair Cable is designed for use in next generation data communications networks, and will comfortably support all present applications including Gigabit Ethernet.

BCC NetSys Category 5E UTP Patch Cable offers the performance characteristics required by the Category 5E Standard. When used in conjunction with BCC NetSys Category 5E RJ45 Jacks and a Category 5E network the user will get a link performance exceeding Category 5E requirements.

Features & benefits

- UL tested
- Performance exceeding Category 5e specifications

Part no	Description
C1510-XX-0500-R	Cat5e UTP HFFR Patch 305m

XX can be replaced with the below to denote colour

BK = Black	VT = Violet	YE = Yellow
BU = Blue	GY = Grey	WH = White
RD = Red	GN = Green	OR = Orange

Item	Specification
Max. Conductor dc resistance (Ω/km)	84
Max. Insulation resistance (Ω/km)	100 M
Dielectic strength	AC-500V/1 Min

Item	Specification
Test object	Jacket
Test material	PVC
Before tensile strength (kg/mm2)	>1.05
Ageing elongation (%)	>100
Ageing condition	100 + 2°C x 240 hours
After tensile strength	>70% of original
Ageing elongation	>65% of original
Rated temperature	75°C
Application	Telephone & other communication circuits such as voice, data, & audio for on-premise customer systems
Reference standard	UL 444
Construction	Stranded Bare Copper
4 Twisted pair	8C
Awg	24
Construction (mm)	7/0.20
Stranded dia. (mm)	0.61
Insulation	PE
Nom. thickness (mm)	0.19
Insulation dia. (+0.05Mm)	1.0
Cabling	
Construction	4P
Jacket	FR-PVC
Nom. thickness (mm)	0.58
Outer dia. (+0.10Mm)	5.5

UTP Cat5e Patch Leads

BCC NetSys-100™ Cabling System

Product summary

BCC NetSys Enhanced Category 5 UTP Patch Leads are designed to exceed the performance requirements of the Enhanced Category 5 specification.

Patch leads are made from Enhanced Category 5 stranded cable and are terminated using high performance modular plugs. Each lead is individually factory tested to the standard to ensure true standard compatibility. We stock a variety of booted and unbooted leads in lengths from 0.5 to 10 metres, available in a number of different colours.

Features & benefits

- Fully conforms to ANSI/TIA-568-C
- Available from stock in lengths from 0.5 to 10 metres
- Available in nine colours
- Each lead is individually QA tested
- Plugs conform to ISO8877

Part no	Description
52-5EUZ-xx-005	0.5M Cat5e UTP Patch lead
52-5EUZ-xx-010	1.0M Cat5e UTP Patch lead
52-5EUZ-xx-015	1.5M Cat5e UTP Patch lead
52-5EUZ-xx-020	2.0M Cat5e UTP Patch lead
52-5EUZ-xx-030	3.0M Cat5e UTP Patch lead
52-5EUZ-xx-050	5.0M Cat5e UTP Patch lead
52-5EUZ-xx-100	10.0M Cat5e UTP Patch lead

Item	Specification
Plug	High performance modular plug
Cable	Enhanced Category 5 stranded cable
Conforms to	ANSI/TIA 568-C

XX can be replaced with the below to denote colour

BK = Black	VT = Violet	YE = Yellow
BU = Blue	GY = Grey	WH = White
BR = Brown	GN = Green	TQ = Turquoise
RD = Red	OR = Orange	PK = Pink

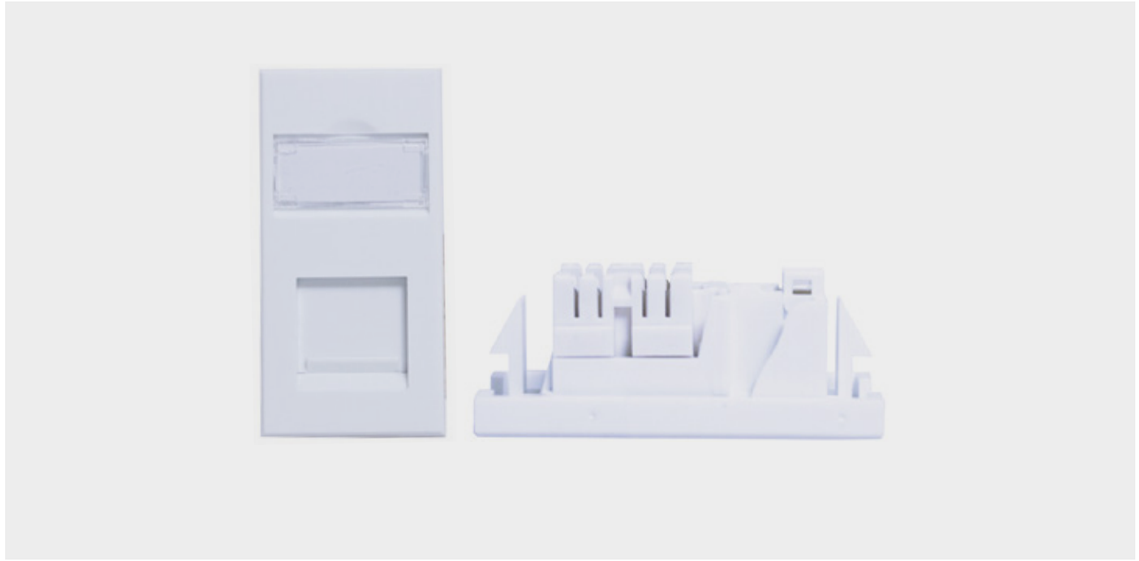
BCC NetSys-250™

Cat 6 Stuctured Cabling Systems

UTP Compact Module

BCC NetSys-250™ Cabling System

BRITISH CABLES COMPANY



Product summary

The BCC NetSys Category 6 Compact Module is designed to provide one of the shallowest wall outlets on the market. They are the ideal solution wherever back-box depth is a problem. The attractive high gloss finish and easy to use labelling system is identical to all other BCC NetSys Cabling Systems Modules, making them interchangeable in most applications. Category 6 Compact Modules can be fitted into single or dual gang Euro Faceplates and can be combined with quarter blanks and/or voice modules to provide the required configuration. BCC NetSys Category 6 Modules are fully compliant with the ANSI/TIA Category 6 Standard. When used in conjunction with BCC NetSys Category 6 Patch Panels and UTP Cable the user will get a link performance exceeding the Category 6 requirements.

Features & benefits

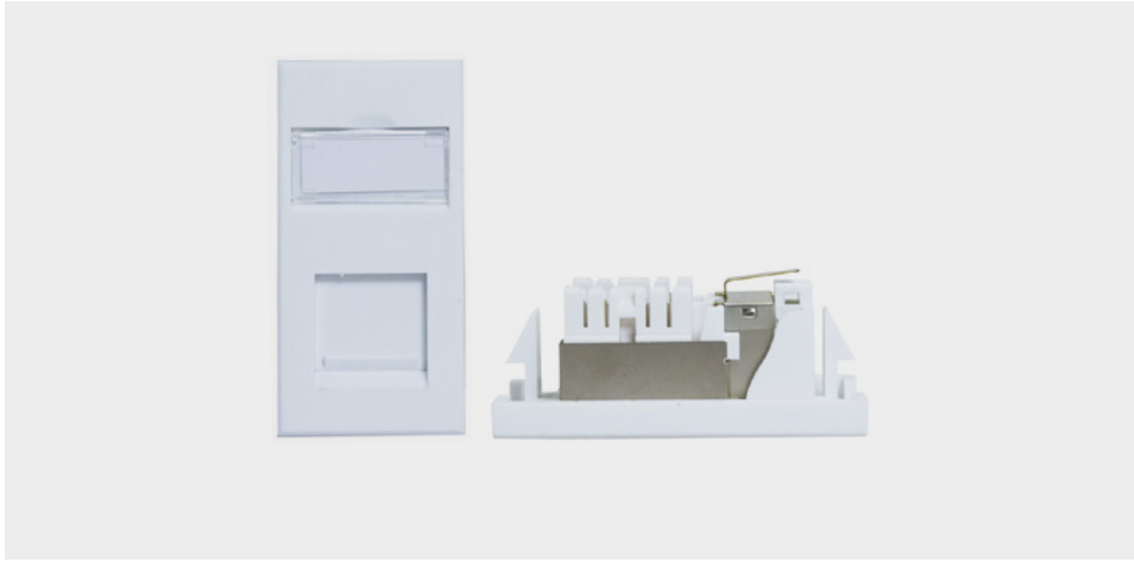
- Suitable for Gigabit Ethernet applications
- Shallow design requires minimal back-box depth
- Interchangeable with all other Euro modules and quarter blanks
- Fits all standard Euro faceplates
- Individually QA tested

Part no	Description
58-C6U-EM	BCC NetSys Cat 6 UTP Compact Euro Module
51-1G2MSF	One Gang, Two Mod, Standard Faceplate
51-2G4MSF	Two Gang, Four Mod, Standard Faceplate
51-1G2MOF	One Gang, Two Mod, Office Faceplate
51-2G4MOF	Two Gang, Four Mod, Office Faceplate
51-FPB025	Faceplate Blank 1/4
51-FPB050	Faceplate Blank 1/2

Item	Specification
Width (mm)	25
Depth (mm)	21
Height (mm)	50
Back-box Depth (mm)	Minimum 15mm recommended Material Poly-carbonate/ABS thermoplastic resin, with grade UL94 VO at 1.5mm flame retardancy
Finish	High gloss
IDC labels	Individual colour coded labels to T568B
IDC blocks	4 way industry standard IDC blocks
Conforms to	ANSI/TIA-568-C Category 6 Specification

FTP Compact Module

BCC NetSys-250™ Cabling System



Product summary

The BCC NetSys Category 6 FTP Compact Module provides the performance needed for present and next generation data communications networks and applications, including Gigabit Ethernet, with the added benefit of shielding to minimise the risk of EMI. The use of next generation components and specially designed boards allow a bandwidth of 250MHz to be achieved in a shielded package. Category 6 compact modules can be fitted into single or dual gang Euro faceplates and can be combined with quarter blanks and/or voice modules to provide the required configuration.

The compact design provides one of the shallowest wall outlets on the market; making them the ideal solution wherever back-box depth is a problem. The modules are fully compliant with the ANSI/TIA Category 6 standards.

Features & benefits

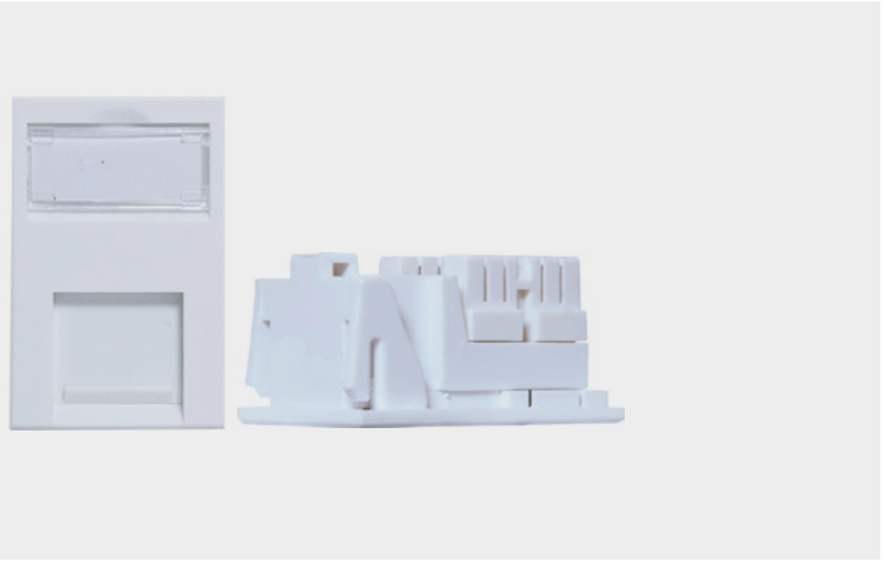
- Suitable for Gigabit Ethernet applications
- Shallow design requires minimal back-box depth
- Interchangeable with all other Euro modules and quarter blanks
- Fits all standard Euro faceplates
- Individually QA tested

Item	Specification
Width (mm)	25
Depth (mm)	22
Height (mm)	50
Back-box Depth (mm)	32
Material	Polycarbonate/ABS thermoplastic resin, with grade UL94 VO at 1.5mm flame retardancy
Finish	High gloss
IDC labels	Colour coded labels to T568B
Cable guide	Integrated earth connection/cable tie position
Sockets	High performance shielded RJ45
IDC blocks	Industry standard IDC blocks
Conforms to	ANSI/TIA-568-C.2 Category 6 Specification

Part no	Description
58-C6F-EM	BCC NetSys Cat 6 FTP Compact Euro Module
51-1G2MSF	One Gang, Two Mod, Standard Faceplate
51-2G4MSF	Two Gang, Four Mod, Standard Faceplate
51-1G2MOF	One Gang, Two Mod, Office Faceplate
51-2G4MOF	Two Gang, Four Mod, Office Faceplate
51-FPB025	Faceplate Blank 1/4
51-FPB050	Faceplate Blank 1/2

UTP LJ6C Module

BCC NetSys-250™ Cabling System



Product summary

Category 6 modules provide the performance needed for present and next generation data communications networks and applications, including Gigabit Ethernet. The use of next generation components and specially designed boards allow a bandwidth of 250MHz to be achieved.

BCC NetSys Category 6 LJ6C Modules are ideal for use in floorboxes, or any application that has an industry standard LJ6C aperture. Single and dual gang faceplates are available for up to four LJ6C modules in addition to panels suitable for Ackerman Floorboxes. Their attractive high gloss finish and easy to use labelling system makes them popular with both installers and end users alike. Installation is made easy with the unique colour coded cable saddle and the use of industry standard IDCs.

Features & benefits

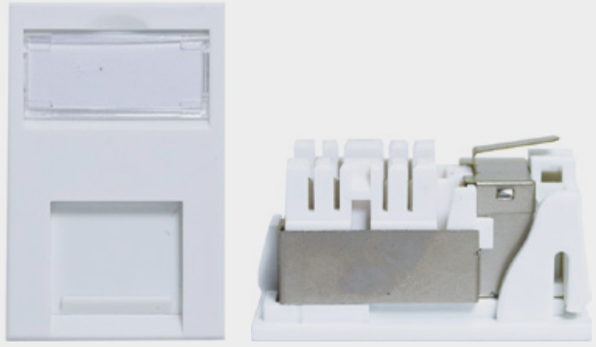
- Industry standard LJ6C size
- Category 6 performance
- Compact low profile design
- Industry standard IDCs
- Top quality high performance sockets
- Individually QA tested

Item	Specification
Width (mm)	25
Depth (mm)	21
Height (mm)	38.5
Back-box depth (mm)	Minimum 20mm with panel, 15mm with faceplate
Mounting hold size	21.7mm x 36.7mm
Panel thickness	2.0mm max
Material	Polycarbonate/ABS thermoplastic resin with grade UL94 VO at 1.5mm flame retardency
Finish	High gloss
IDC labels	Colour coded labels T568B
Cable guide	Integrated cable tie position
Sockets	High performance unshielded RJ45
IDC blocks	4 way industry standard IDC blocks
Conforms to	ANSI/TIA-568-C Category 6 Specification

Part no	Description
58-C6U-LJ6	BCC NetSys Cat 6 UTP Compact LJ6C Module
51-1G2MSF-LJ6	One Gang, Two Mod Standard Faceplate
51-2G4MSF-LJ6	Two Gang, Four Mod Standard Faceplate
51-1G2MOF-LJ6	One Gang, Two Mod Office Faceplate
51-2G4MOF-LJ6	Two Gang, Four Mod Office Faceplate
51-FPB025-LJ6	LJ6C Blank 1/4
51-FPB050-LJ6	LJ6C Blank 1/2

FTP LJ6C Module

BCC NetSys-250™ Cabling System



Product summary

The BCC NetSys Category 6 FTP LJ6C Module provides the performance needed for present and next generation data communications networks and applications, including Gigabit Ethernet, with the added benefit of shielding to minimise the risk of EMI. The use of next generation components and specially designed boards allow a bandwidth of 250MHz to be achieved in a shielded package.

BCC NetSys LJ6C Modules are ideal for use in floorboxes, or any application that has an industry standard LJ6C aperture. Single and dual gang faceplates are available for up to four LJ6C modules in addition to panels suitable for Ackerman Floorboxes. The modules are fully compliant with the ANSI/TIA Category 6 standards. When used in conjunction with BCC NetSys Category 6 FTP Patch Panels and FTP Cable the user will get a link performance exceeding Category 6 requirements.

Features & benefits

- Cat 6 performance
- Suitable for Gigabit Ethernet
- Ultra-slimline design
- LJ6C style module
- Interchangeable with other LJ6C modules and blanks
- Individually QA tested
- Easy to use shield connection
- Individually QA tested

Item	Specification
Width (mm)	25
Depth (mm)	22
Height (mm)	38.5
Back-box depth (mm)	32
Mounting hold size	22mm x 37mm
Panel thickness	2.0mm max
Material	Polycarbonate/ABS thermoplastic resin with grade UL94 VO at 1.5mm flame retardency
Finish	High gloss
IDC labels	Colour coded to T568B
Cable guide	Integrated cable tie position
Sockets	High performance shielded RJ45
IDC blocks	4 way industry standard IDC blocks
Conforms to	ANSI/TIA-568-C.2 Category 6 Specification

Part no	Description
58-C6F-LJ6	BCC NetSys Cat 6 FTP Compact LJ6C Module
51-1G2MSF-LJ6	One Gang, Two Mod Standard Faceplate
51-2G4MSF-LJ6	Two Gang, Four Mod Standard Faceplate
51-1G2MOF-LJ6	One Gang, Two Mod Office Faceplate
51-2G4MOF-LJ6	Two Gang, Four Mod Office Faceplate
51-FPB025-LJ6	LJ6C Blank 1/4
51-FPB050-LJ6	LJ6C Blank 1/2

4000 Series Vertical Outlet

BCC NetSys-250™ Cabling System

Product summary

The BCC NetSys 4000 Series offers Category 6 performance in a high density package. The 4000 Series is extremely quick and easy to install; just attach the base plate, snap in the PCB, punch down the cables and install the cover. Gone are the problems of installing modules into a faceplate and pushing excess wires into a back box.

The 4000 Series outlets have been designed for direct wall mounting with top entry mini trunking. In addition, they fit on a standard back box to provide maximum mounting flexibility. The installation without protruding leads.

Features & benefits

- High density, single gang unit
- Category 6 performance
- No protruding leads
- Designed for direct wall mounting
- Custom logo service available
- Available in a 2 or 4 port version

Item	Specification
Width (mm)	87
Depth (mm)	27
Height (mm)	87
Material	ABS thermoplastic resin, with grade UL94 VO at 1.5mm flame retardancy
Finish	High gloss
PCB	1.6mm double sided PTH boards
IDC blocks	Industry standard IDC blocks
Conforms to	TIA/EIA-568-C Category 6 Specification

Part no	Description
J8-C6-4WVWO	BCC NetSys Cat 6 4 Way Vertical Wall Outlet
J8-C6-2WVWO	BCC NetSys Cat 6 2 Way Vertical Wall Outlet

4000 Series Tamperproof Outlet

BCC NetSys-250™ Cabling System

BRITISH CABLES COMPANY

Product summary

The BCC NetSys 4000 Series offers Category 6 performance in a high-density package. The Tamperproof outlet restricts the user's access to patch leads, eliminating unauthorised or accidental patch lead disconnection which is one of the most common causes of network problems.

The 4000 Series is extremely quick and easy to install; just attach the base plate, snap in the PCB, punch down the cables and install the cover. The Tamperproof version has the added benefit that leads cannot be unplugged without first removing the cover, and the position of the sockets allow for a compact installation without protruding leads.

The 4000 Series outlets have been designed for direct wall mounting with top entry mini trunking. In addition, they fit on a standard back box to provide maximum mounting flexibility.

Features & benefits

- Tamperproof design
- High density, single gang unit
- Category 6 performance
- Designed for direct wall mounting
- Custom logo service available
- Available as a 2 or 4 port version

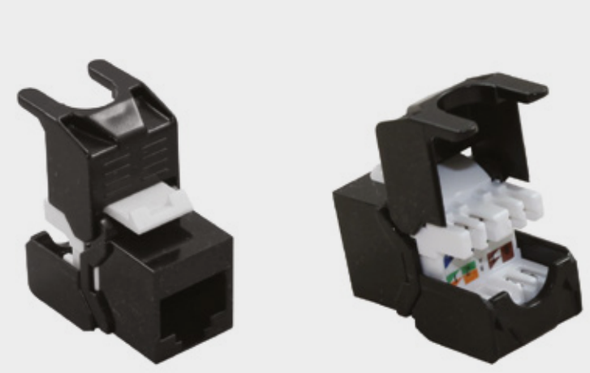
Item	Specification
Width (mm)	87
Depth (mm)	27
Height (mm)	87
Height (including tamperproof cover)	120
Spacer plate depth (mm)	8
Material	ABS thermoplastic resin, with grade UL94 VO at 1.5mm flame retardancy
Finish	High gloss
PCB	1.6mm double sided PTH boards
IDC blocks	4 Way industry standard IDC blocks
Conforms to	TIA/EIA-568-C Category 6 Specification

Part no	Description
58-C6-4WTWO	Cat 6 4 Way Tamperproof Wall Outlet
58-C6-2WTWO	Cat 6 2 Way Tamperproof Wall Outlet

Keystone Module - Unshielded

BCC NetSys-250™ Cabling System

BRITISH CABLES COMPANY



Product summary

BCC NetSys Category 6 Tool-less Keystone Modules ensure a quick and easy to terminate installation. The snap-fit to terminate design means that a punch down tool is not required.

The module offers a high performance transmission that meets or exceeds Cat6 standards. They have been designed to be installed into most UK and European keystone applications, including standard or angled faceplate products, patch panels or surface boxes. The loading cap is colour coded to T568B standards to ensure a quick and easy installation.

Features & benefits

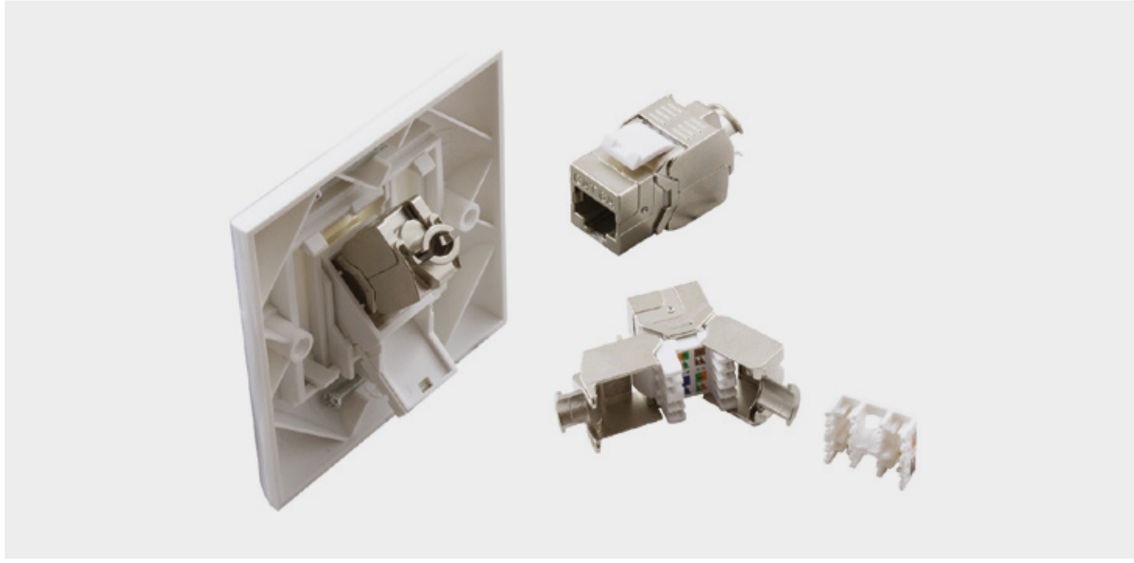
- Quick and easy to install
- Snap-fit to terminate
- Suitable for all standard Keystone applications
- Compact design
- Category 6 hardware performance
- T568A and T568B colour coded wiring terminals

Part no	Description
53-C6U-TL	BCC NetSys Cat 6 Tool-less Keystone Module - Unshielded
51-ASFSF	BCC NetSys Angled Shuttered Euro Fascia

Item	Specification
Width (mm)	16.3
Depth (mm)	31.5
Height (mm)	21
Mounting hold size	19.3mm x 14.7mm
Material	Polycarbonate/ABS thermoplastic resin with grade UL94 VO at 1.5mm flame retardency
IDC labels	Colour coded to T568A and T568B
IDC blocks	Tool-less IDC mechanism
Conforms to	ANSI/TIA-568-C Category 6 Specification
IDC blocks	4 Way industry standard IDC blocks
Conforms to	TIA/EIA-568-C Category 6 Specification

Keystone Module - Shielded

BCC NetSys-250™ Cabling System



Product summary

BCC NetSys Category 6 Tool-less Keystone Modules ensure a quick and easy to terminate installation. The snap-fit to terminate design means that a punch down tool is not required.

The module offers a high performance transmission that meets or exceeds Cat6 standards. They have been designed to be installed into most UK and European keystone applications, including standard or angled faceplate products, patch panels or surface boxes. The loading cap is colour coded to T568B standards to ensure a quick and easy installation.

Features & benefits

- Quick and easy to install
- Snap-fit to terminate
- Suitable for all standard keystone applications
- Integrated cable tie position
- Category 6 hardware performance
- T568B colour coded wiring terminals

Part no	Description
53-C6U-TL	BCC NetSys Cat 6 Tool-less Keystone Module - Shielded
51-ASFSF	BCC NetSys Angled Shuttered Euro Fascia

Item	Specification
Width (mm)	16.3
Depth (mm)	31.5
Height (mm)	21
Recommended back-box depth (mm)	32
Mounting hold size	19.3mm x 14.7mm
Copper conductor diameter	24 AWG
life (operations)	Min. 750
Shield housing	Zinc die-cast
Colour code	T568B
Conforms to	ANSI/TIA-568-C.2 Category 6 Specification IEEE802.3an 10-Gigabit Ethernet

UTP Angled Keystone Patch Panel

BCC NetSys-250™ Cabling System

Product summary

The BCC NetSys 24 Way Angled Panel offers enhanced patch lead management in any style of cabinet. The patent pending design naturally sweeps patch leads to the side of the racking, without the panel protruding beyond the rack or cabinet profiles.

The 24 way Keystone Panel offers a high density design and the capability for Category 6 data transmission performance levels. Supplied unloaded, the unshielded patch panel accepts Category 6 or Category 5e high performance Keystone Modules which are simply clicked into position. An integrated rear management tray supports the cabling and offers individual cable tie positions. For the optimum in on-site installation efficiency, BCC NetSys Express Pre-terminated and Pre-tested assemblies can be used.

Features & benefits

- Enhanced patch lead management
- For use in cabinets and open racks
- Patent pending design
- Suitable for BCC NetSys Express assemblies
- Integrated Cable management bar
- Robust all steel construction

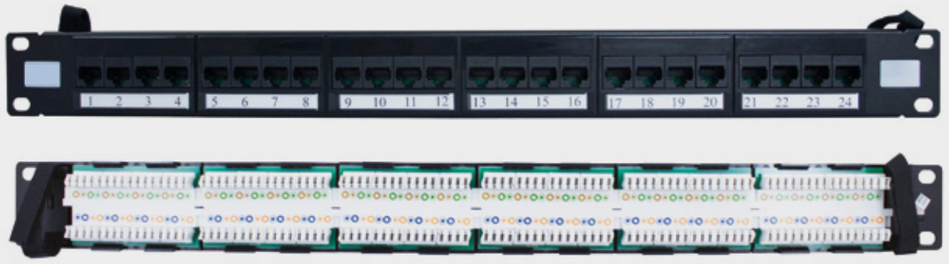
Item	Specification
Width (mm)	483 (19")
Depth (mm)	130
Height (mm)	44.45
Material	Mild steel
Finish	Fine textured black paint (front) Bright zinc plate (rear)

Part no	Description
50-6U24-IU-MA	Unloaded 24 Way Angled UTP Panel
53-BLANK	Keystone Panel Blanks

UTP High Density Patch Panel

BCC NetSys-250™ Cabling System

BRITISH CABLES COMPANY



Product summary

BCC NetSys Category 6 High Density Elite Patch Panels provide the performance needed for present and next generation data communications networks and applications, including Gigabit Ethernet. The high density format is ideal where cabinet space is at a premium.

Available in a 1u 24 port format and a 2u 48 port format, these Category 6 High Density panels achieve optimum transmission performances by incorporating the highest quality components and innovative on-board compensation techniques. The front of the panel features easy to use slide-in labels. The rear utilises colour coded cable saddles and hook and loop retainers. All BCC NetSys Category 6 High Density Panels are fully compliant with the ANSI/TIA Category 6 Standard. When used in conjunction with BCC NetSys Category 6 Modules and UTP Cable, the user will get a link performance exceeding Category 6 requirements.

Features & benefits

- Category 6 performance
- Unique colour coded saddles allow for quick and easy termination
- Industry standard IDCs
- Top quality high performance sockets
- Individually QA tested
- Manufactured in the UK

Item	Specification
Width (mm)	483 (19")
Depth (mm)	30
Height	1u (44mm)
Fixing centres (mm)	467
Material	Mild steel sheet CR4 to BSEN 10130-1999 DC01, Plastic inserts ABS thermoplastic resin with grade, UL94 V0 at 1.5mm flame retardancy
Finish	Black powder coated to BS6496
Socket labels	9mm numbered card with acetate cover
IDC Colour code	IDC Colour code to T568B
Cable guide	Individual cable saddles with cable tie
Sockets	High performance unshielded vertical jacks
IDC blocks	4 way industry standard IDC blocks
PCB	Groups of 4 identical circuits on 1.6mm double sided PTH boards
Conforms to	ANSI/TIA-568-C Category 6 Specification

Part no	Description
50-6U24-1U-E	BCC NetSys 24 Way UTP Patch Panel
50-6U48-2U-E	BCC NetSys 48 Way UTP Patch Panel

UTP Right Angled High Density Patch Panel

BCC NetSys-250™ Cabling System

BRITISH CABLES COMPANY

Product summary

The BCC NetSys 2020 Series Patch Panel is an alternative to the Category 6 High Density Elite Panel. It offers the same Category 6 performance as the standard panel but has been designed to present the cable termination IDCs horizontally on a tray at the rear , making termination and Cable management easier.

Category 6 High Density 24 way panels achieve optimum transmission performances by incorporating the highest quality components and innovative on-board compensation techniques. This panels offer extended PowerSum characteristics and exceeds the ANSI/TIA-568-C specifications. When combined with BCC NetSys Category 6 Modules and UTP Cable the link will perform well in excess of the Category 6 specification. LC, SC, ST and FC fibre modules are also available, complete with a Starlight compatible gland hole and integrated management tray. Blank modules can be included for future expansion.

Features & benefits

- Easy to install
- Simple Cable management
- Suitable for Gigabit Ethernet applications
- Adjustable recessed mounting version available
- Mix and match copper and fibre in one panel
- Manufactured in the UK

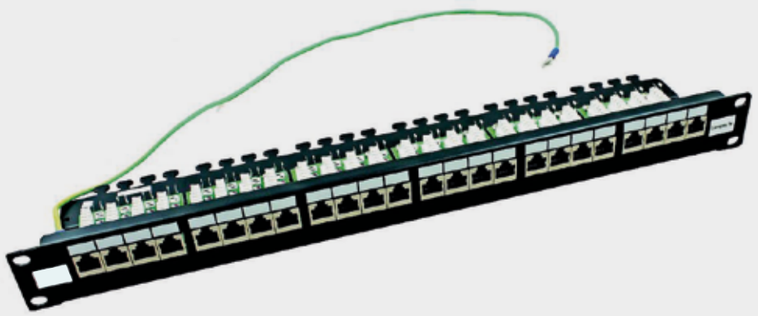
Item	Specification
Width (mm)	483 (19")
Depth (mm)	95
Height	1u (44mm)
Fixing centres (mm)	467
Material	Mild steel sheet CR4 to BSEN 10130-1999 DC01
Finish	Matt black polyester paint
Socket labels	Write-on silk screen on panel front
Cable management	Improved cabling facility with easy to use cable tie positions for left and right cable entry
IDC Labelling	Colour coded to T568B
IDC blocks	Industry standard 4 way IDC's
Conforms to	ANSI/TIA-568-C Category 6 Specification

Part no	Description
50-6U24-1U-A	BCC NetSys 24 Way UTP Right-Angled Patch Panel

FTP Right Angled High Density Patch Panel

BCC NetSys-250™ Cabling System

BRITISH CABLES COMPANY



Product summary

The BCC NetSys Category 6 2020 Series Patch Panel is an alternative to the Standard Category 6 Panel. It offers the same Cat 6 performance as the standard panel but has been designed to present the cable termination IDCs horizontally on a tray at the rear of the panel, making termination and Cable management easier.

Category 6 panels provide exceptional performance for high speed LANs including Gigabit Ethernet applications. The boards are designed using the latest noise compensation techniques and the shielding feature minimises the risk of EMI. All sockets in the panel are commonly linked through the panel and can be grounded to the rack using the earth wire provided. When combined with BCC NetSys Category 6 FTP Modules and Cable the link will perform well in excess of the Category 6 specifications.

Features & benefits

- Easy to install
- Suitable for Gigabit Ethernet applications
- High Density 24 ports
- Rear cover to protect termination and improve shielding
- Mix and match copper and fibre in one panel
- Manufactured in the UK

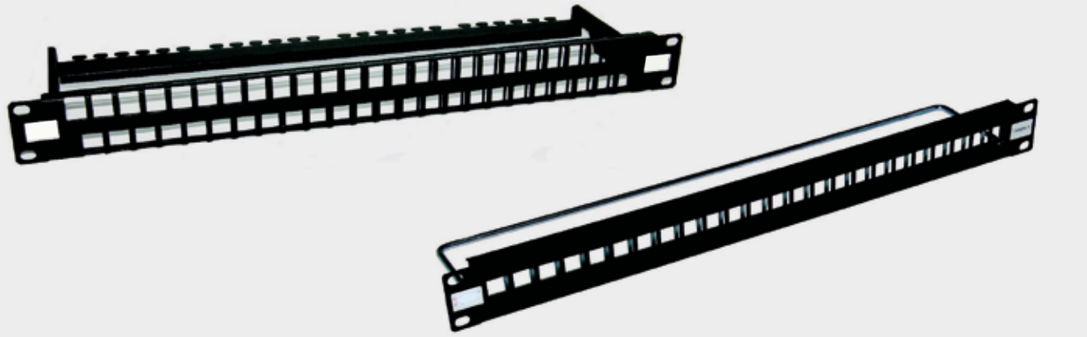
Item	Specification
Width (mm)	483 (19")
Depth (mm)	98
Height	1u (44mm)
Fixing centres (mm)	467
Material	Mild steel sheet CR4 to BSEN 10130-1999 DC01
Finish	Matt black polyester paint
Socket labels	Write-on silk screen on panel front
Cable management	Improved cabling facility with easy to use cable tie positions for left and right cable entry
IDC labelling	Colour coded to T568B
IDC blocks	Industry standard 4 way IDC's
Conforms to	ANSI/TIA-568-C.2 Category 6 Specification

Part no	Description
50-6F24-1U-A	BCC NetSys 24 Way FTP Right-Angled Patch Panel

Unloaded UTP Keystone Patch Panel

BCC NetSys-250™ Cabling System

BRITISH CABLES COMPANY



Product summary

The BCC NetSys 24 and 48 Way UTP Keystone Panels offer ultra High Density and the capability for Category 6 data transmission performance levels. The panel is supplied unloaded and accepts Category 6 performance Keystone Modules which are simply clicked into position.

Patch panel installation and termination time can be greatly reduced when BCC NetSys Tool-less Keystone Modules are used in the panel, making for a snap-to-fit, quick and easy termination. To further increase on-site installation efficiency, BCC NetSys Express Pre-terminated and Pre-tested Modules can be used.

Features & benefits

- 24 and 48 way High Density
- Category 6 performance
- Suitable for BCC NetSys Express assemblies
- Suitable for tool-less Keystone Modules
- Integrated Cable management bar

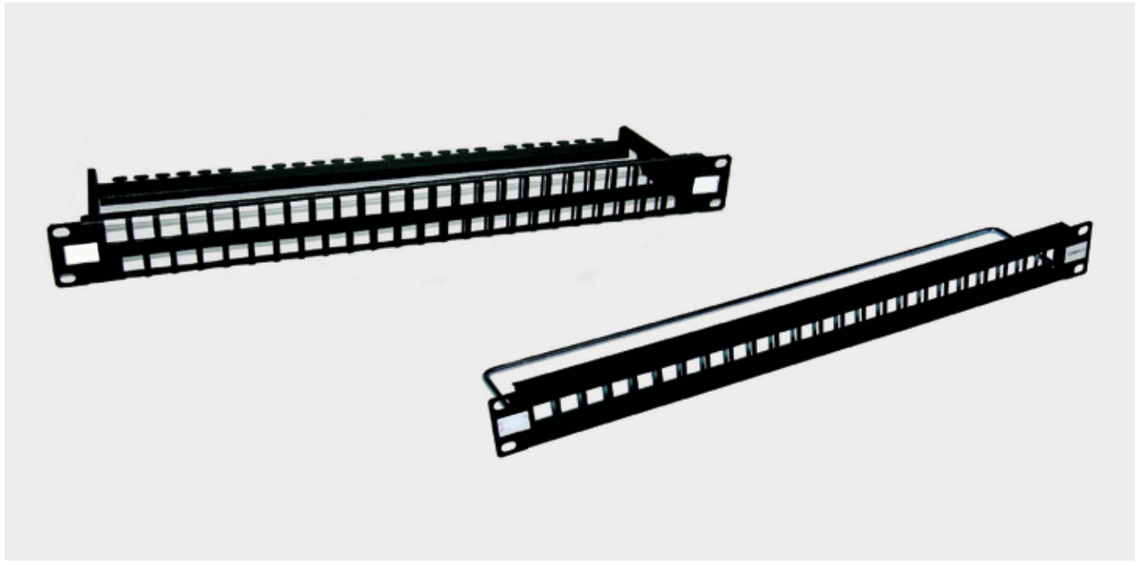
Item	Specification
Width (mm)	483 (19")
Depth (mm)	155
Height (mm)	44.45
Material	Mild Steel
Finish	Fine textured black paint (front)

Part no	Description
50-6U24-1U-M	BCC NetSys 24 Way Unloaded UTP Patch Panel
50-6U48-2U-M	BCC NetSys 48 Way Unloaded UTP Patch Panel

Unloaded FTP Keystone Patch Panel

BCC NetSys-250™ Cabling System

BRITISH CABLES COMPANY



Product summary

The BCC NetSys 24 and 48 Way FTP Keystone Panels offer ultra High Density and the capability for Category 6 data transmission performance levels. The panel is supplied unloaded and accepts Category 6 performance Keystone Modules which are simply clicked into position.

Patch panel installation and termination time can be greatly reduced when BCC NetSys Tool-less Keystone Modules are used in the panel, making for a snap-to-fit, quick and easy termination. To further increase on-site installation efficiency, BCC NetSys Express Pre-terminated and Pre-tested Modules can be used.

Features & benefits

- 24 and 48 way High Density
- Category 6 performance
- Suitable for BCC NetSys Express assemblies
- Suitable for tool-less Keystone Modules
- Integrated Cable management bar

Item	Specification
Width (mm)	483 (19")
Depth (mm)	155
Height (mm)	44.45
Material	Mild Steel
Finish	Fine textured black paint (front)

Part no	Description
50-6F24-1U-M	BCC NetSys 24 Way Unloaded FTP Patch Panel
50-6F48-2U-M	BCC NetSys 48 Way Unloaded FTP Patch Panel

BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 6 U/UTP Cable - B2ca-s1a, d0, a1

B2ca-s1a, d0, a1
DoP: BCC1004

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications

Suitable for internal use of Local Area Networks and Analogue & Digital video applications, supporting Gigabit Ethernet and POE.

Category

6 Data Cables

Standard References

ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-3-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design

1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Cross member
Polyethylene

4. Ripcord
Nylon

5. Sheath
LSZH

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.55 (±0.01)	1.00 (±0.05)	6.2 (±0.3)	40	-10 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	95	5.6	65	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	74.3	72.3	67.8	64.8	20.0	45
4	3.8	65.3	63.3	55.8	52.8	23.0	45
8	5.3	60.8	58.8	49.7	46.7	24.5	45
10	6.0	59.3	57.3	47.8	44.8	25.0	45
16	7.6	56.2	54.2	43.7	40.7	25.0	45
20	8.5	54.8	52.8	41.8	38.8	25.0	45
25	9.5	53.3	51.3	39.8	36.8	24.3	45
31.25	10.7	51.9	49.9	37.9	34.9	23.6	45
62.5	15.4	47.4	45.4	31.9	28.9	21.5	45
100	19.8	44.3	42.3	27.8	24.8	20.1	45
200	29.0	39.8	37.8	21.8	18.8	18.0	45
250	32.8	38.3	36.3	19.8	16.8	17.3	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 6 U/UTP Cable - Cca-s1a, d0, a1

Cca-s1a, d0, a1
DoP: BCC1005

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
Suitable for internal use of Local Area Networks and Analogue & Digital video applications, supporting Gigabit Ethernet and POE.

Category
6 Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-6-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Cross member
Polyethylene

4. Ripcord
Nylon

5. Sheath
LSZH

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.55 (±0.01)	1.00 (±0.05)	6.2 (±0.3)	40	-10 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	95	5.6	65	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	74.3	72.3	67.8	64.8	20.0	45
4	3.8	65.3	63.3	55.8	52.8	23.0	45
8	5.3	60.8	58.8	49.7	46.7	24.5	45
10	6.0	59.3	57.3	47.8	44.8	25.0	45
16	7.6	56.2	54.2	43.7	40.7	25.0	45
20	8.5	54.8	52.8	41.8	38.8	25.0	45
25	9.5	53.3	51.3	39.8	36.8	24.3	45
31.25	10.7	51.9	49.9	37.9	34.9	23.6	45
62.5	15.4	47.4	45.4	31.9	28.9	21.5	45
100	19.8	44.3	42.3	27.8	24.8	20.1	45
200	29.0	39.8	37.8	21.8	18.8	18.0	45
250	32.8	38.3	36.3	19.8	16.8	17.3	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 6 U/UTP Cable - Cca-s1a, d0, a1

Cca-s1a, d0, a1
DoP: BCC1005

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
Suitable for internal use of Local Area Networks and Analogue & Digital video applications, supporting Gigabit Ethernet and POE.

Category
6 Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-6-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Cross member
Polyethylene

4. Ripcord
Nylon

5. Sheath
LSZH

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.51 (±0.01)	0.93 (±0.05)	5.9 (±0.2)	40	-10 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	95	5.6	65	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	74.3	72.3	67.8	64.8	20.0	45
4	3.8	65.3	63.3	55.8	52.8	23.0	45
8	5.3	60.8	58.8	49.7	46.7	24.5	45
10	6.0	59.3	57.3	47.8	44.8	25.0	45
16	7.6	56.2	54.2	43.7	40.7	25.0	45
20	8.5	54.8	52.8	41.8	38.8	25.0	45
25	9.5	53.3	51.3	39.8	36.8	24.3	45
31.25	10.7	51.9	49.9	37.9	34.9	23.6	45
62.5	15.4	47.4	45.4	31.9	28.9	21.5	45
100	19.8	44.3	42.3	27.8	24.8	20.1	45
200	29.0	39.8	37.8	21.8	18.8	18.0	45
250	32.8	38.3	36.3	19.8	16.8	17.3	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 6 U/UTP Cable - Dca-s1a, d0, a1

Dca-s1a, d0, a1
DoP: BCC1006

CPR COMPLIANT

BCC BRITISH CABLES COMPANY

Applications
Suitable for internal use of Local Area Networks and Analogue & Digital video applications, supporting Gigabit Ethernet and POE.

Category
6 Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-6-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Cross member
Polyethylene

4. Ripcord
Nylon

5. Sheath
LSZH

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
0.51 (±0.01)	0.93 (±0.05)	5.9 (±0.2)	40	-10 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz)	95	5.6	65	5000	2.0

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	74.3	72.3	67.8	64.8	20.0	45
4	3.8	65.3	63.3	55.8	52.8	23.0	45
8	5.3	60.8	58.8	49.7	46.7	24.5	45
10	6.0	59.3	57.3	47.8	44.8	25.0	45
16	7.6	56.2	54.2	43.7	40.7	25.0	45
20	8.5	54.8	52.8	41.8	38.8	25.0	45
25	9.5	53.3	51.3	39.8	36.8	24.3	45
31.25	10.7	51.9	49.9	37.9	34.9	23.6	45
62.5	15.4	47.4	45.4	31.9	28.9	21.5	45
100	19.8	44.3	42.3	27.8	24.8	20.1	45
200	29.0	39.8	37.8	21.8	18.8	18.0	45
250	32.8	38.3	36.3	19.8	16.8	17.3	45

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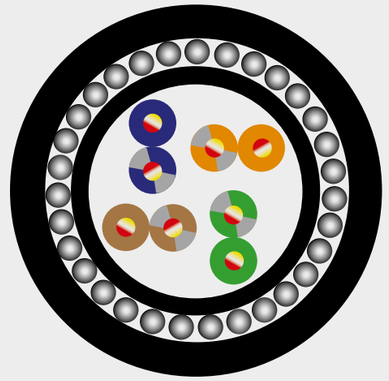
Solid SWA Cable

BCC NetSys-250™ Cabling System

BCC BRITISH CABLES COMPANY



Product summary
Category 6 unshielded twisted pair cable is designed for use in next generation data communications networks, and will comfortably support all present applications including Gigabit Ethernet.

BCC NetSys Category 6 UTP Solid Cable offers the performance characteristics required by the ever present Category 6 Standard. When used in conjunction with Connectix Category 6 Modules and Patch Panels the user will get a link performance exceeding Category 6 requirements.

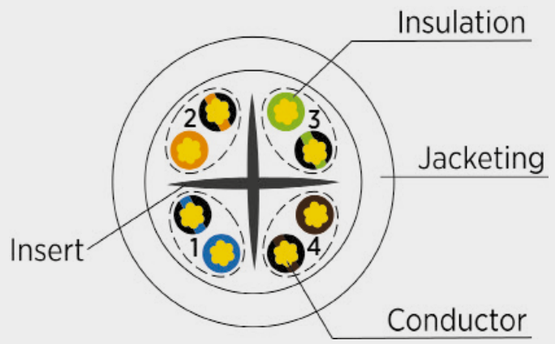
Features & benefits
- Suitable for outdoor usage
- Rodent proof and waterproof
- Suitable for Gigabit Ethernet
- Performance exceeding Category 6 specifications

Part no	Description
BCCWAMIK65FP00D	Cat 6 UTP PE Solid SWA Cable (Black)

Item	Specification
AWG	23
Conductor diameter	0.57 +/- 0.01
Installation (PE) thickness	0.215
Installation diameter	1.00(+/-0.05) x 2C twist
PVC Jacket diameter	6.5 +/- 0.15
PE jacket colour	Grey (RAL -7044)
PE jacket diameter	8.5 +/-0.2
PE jacket colour	Black
SWA construction	0.9mm x 30+/-3
PE outer jacket diameter	1.2
PE outer jacket colour	12.80
PE outer jacket colour	Black
Max conductor DC resistance at 20°C	<81.6
Rated temperature	60oC
Velocity ratio	65%

Patch Cable

BCC NetSys-250™ Cabling System



Product summary

Category 6 Unshielded Twisted Pair Cable is designed for use in next generation data communications networks, and will comfortably support all present applications including Gigabit Ethernet.

BCC NetSys Category 6 UTP Patch Cable offers the performance characteristics required by the ever present Category 6 Standard. When used in conjunction with Connectix Category 6 RJ45 Jacks and a Category 6 network the user will get a link performance exceeding Category 6 requirements.

Features & benefits

- Category 6 performance
- UL tested
- Performance exceeding Category 6 specifications

Part no	Description
C1550-XX-0500-R	Cat 6 UTP Patch 305m

XX can be replaced with the below to denote colour

BK = Black	VT = Violet	YE = Yellow
BU = Blue	GY = Grey	WH = White
RD = Red	GN = Green	OR = Orange

Item	Specification
Inner conductor	26 AWG plain copper
Insulation	High density polyethylene
Construction	4 twisted pairs cabled together with spline
Colour code	Pair 1: White/Blue - Blue/White Pair 2: White/Orange - Orange/White Pair 3: White/Green - Green/White Pair 4: White/Brown - Brown/White
Jacket	HFFR
Overall diameter	6.4 mm
Min bending radius installation	50 mm
Min Bending Radius Installed	25 mm
Impedance	100 Ohm +/- 15%
Capacitance	<5.6nF/100m
DC resistance	< 9 Ω/100m
Velocity ratio	69%
Conforms to	ANSI/TIA-568-C Cat 6 Specification ISO/ IEC 2nd Edition 11801 Class E/ CENELEC EN 50173-1 CENELEC EN 50288-6-2 / IEC 61156-6 (for patch) RoHS compliant with European Union issued Directive 2002/95/EC

UTP Cat6 Patch Leads

BCC NetSys-250™ Cabling System

Product summary

BCC NetSys Cat 6 UTP Patch Leads are designed to exceed the performance requirements of the Category 6 Specification.

These patch leads are made from Category 6 stranded cable and are terminated using high performance modular plugs. There are a variety of leads in lengths from 0.5 to 10 metres in stock as well as a number of different colours.

Features & benefits

- Conforms to TIA/EIA-568-C Category 6 Specification
- Conforms to IEC 60332-1, IEC 61034 and IEC 60754
- Available from stock in lengths from 0.5 to 5 metres
- Available in nine different colours
- Each lead is individually tested
- Plugs conform to ISO8877

Part no	Description
52-6SUZ-xx-005	0.5M Cat6 UTP Patch lead
52-6SUZ-xx-010	1.0M Cat6 UTP Patch lead
52-6SUZ-xx-015	1.5M Cat6 UTP Patch lead
52-6SUZ-xx-020	2.0M Cat6 UTP Patch lead
52-6SUZ-xx-030	3.0M Cat6 UTP Patch lead
52-6SUZ-xx-050	5.0M Cat6 UTP Patch lead
52-6SUZ-xx-100	10.0M Cat6 UTP Patch lead

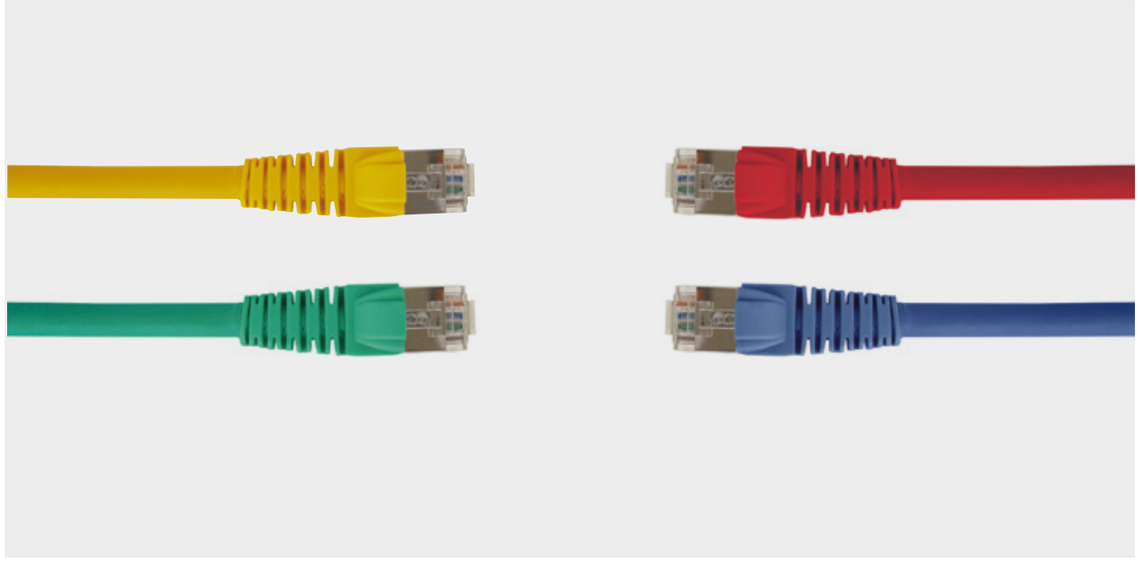
Item	Specification
Plug	High performance modular plug
Cable	26 AWG PVC Category 6 stranded cable
Cable diameter	Approx. 4.8mm
Conforms to	TIA/EIA-568-C Category 6 Specification

XX can be replaced with the below to denote colour

BK = Black	VT = Violet	YE = Yellow
BU = Blue	GY = Grey	WH = White
BR = Brown	GN = Green	TQ = Turquoise
RD = Red	OR = Orange	PK = Pink

FTP Cat6 Patch Leads

BCC NetSys-250™ Cabling System



Product summary

BCC NetSys Category 6 FTP Patch Leads are designed to exceed the performance requirements of the Category 6 Specification.

The BCC NetSys Cat 6 Patch Leads are made from Category 6 stranded cable and are terminated using high performance modular plugs. The fully shielded patch leads increase signal isolation and prevent contaminant noise from entering a cabling system. Each lead is individually factory tested to the standard to ensure true Category 6 compatibility. We stock a variety of lead lengths, each available in a number of different colours.

Features & benefits

- Fully shielded for signal protection
- Shielding prevents contaminant noise from entering the cabling system
- Individually tested up to 250MHz
- Available from stock in lengths from 0.5 to 5 metres
- Fully conforms to ANSI/TIA-568-C
- Each lead is individually tested
- Plugs conform to ISO8877

Part no	Description
52-65FZ-XX-005	0.5M Cat6 FTP Patch lead
52-65FZ-XX-010	1.0M Cat6 FTP Patch lead
52-65FZ-XX-015	1.5M Cat6 FTP Patch lead
52-65FZ-XX-020	2.0M Cat6 FTP Patch lead
52-65FZ-XX-030	3.0M Cat6 FTP Patch lead
52-65FZ-XX-050	5.0M Cat6 FTP Patch lead
52-65FZ-XX-100	10.0M Cat6 FTP Patch lead

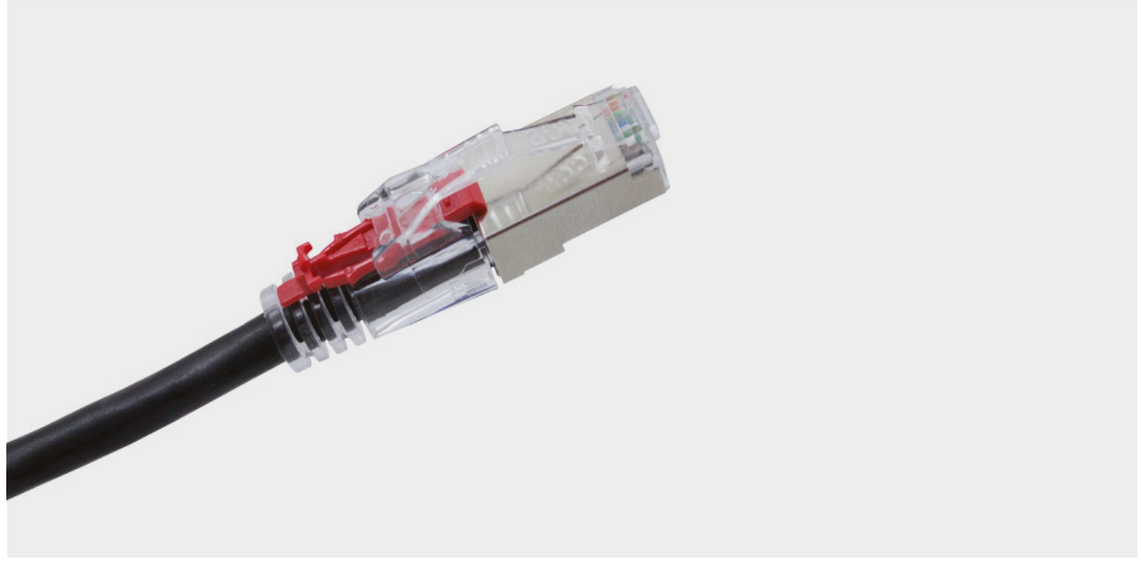
Item	Specification
Plug	High performance modular plug
Cable	Category 6 stranded cable
Conforms to	ANSI/TIA-568-C

XX can be replaced with the below to denote colour

BK = Black	VT = Violet	YE = Yellow
BU = Blue	GY = Grey	WH = White
BR = Brown	GN = Green	TQ = Turquoise
RD = Red	OR = Orange	PK = Pink

Patchlock Leads

BCC NetSys-250™ Cabling System



Product summary

The Patchlock leads from BCC NetSys provide extra security when installed in public areas as they prevent the risk of unauthorised disconnection of critical network connections. A Removal Key must be used to release the secure lock thus allowing the patch lead to be removed.

The BCC NetSys Category 6 Patch Leads are made from Category 6 stranded cable and are terminated using high performance modular plugs. The fully shielded patch leads increase signal isolation and prevent contaminant noise from entering a cabling system.

Each lead is individually factory tested to the standard to ensure true Category 6 compatibility. We stock a variety of lead lengths, each available in a number of different colours. BCC NetSys Category 6 FTP Patch Leads are designed to exceed the performance requirements of the Category 6 Specification.

Features & benefits

- Individually tested up to 250MHz
- Fully conforms to ANSI/TIA-568-C
- Uses fully shielded cable
- Available from stock in lengths from 0.5 to 5 metres
- Available with blue, red, yellow or green latches
- Offers enhanced security

Part no	Description
52-65F2-XX-005L	0.5M Cat6 FTP Patchlock lead
52-65F2-XX-010L	1.0M Cat6 FTP Patchlock lead
52-65F2-XX-015L	1.5M Cat6 FTP Patchlock lead
52-65F2-XX-020L	2.0M Cat6 FTP Patchlock lead
52-65F2-XX-030L	3.0M Cat6 FTP Patchlock lead
52-65F2-XX-050L	5.0M Cat6 FTP Patchlock lead
52-65F2-XX-100L	10.0M Cat6 FTP Patchlock lead

Item	Specification
Plug	High performance 50um gold plated
Cable	Category 6 stranded cable
Conforms to	ANSI/TIA-568-C
Boot & secure lock	Polycarbonate
Key	Polycarbonate

XX can be replaced with the below to denote colour

BK = Black	VT = Violet	YE = Yellow
BU = Blue	GY = Grey	WH = White
BR = Brown	GN = Green	TQ = Turquoise
RD = Red	OR = Orange	PK = Pink

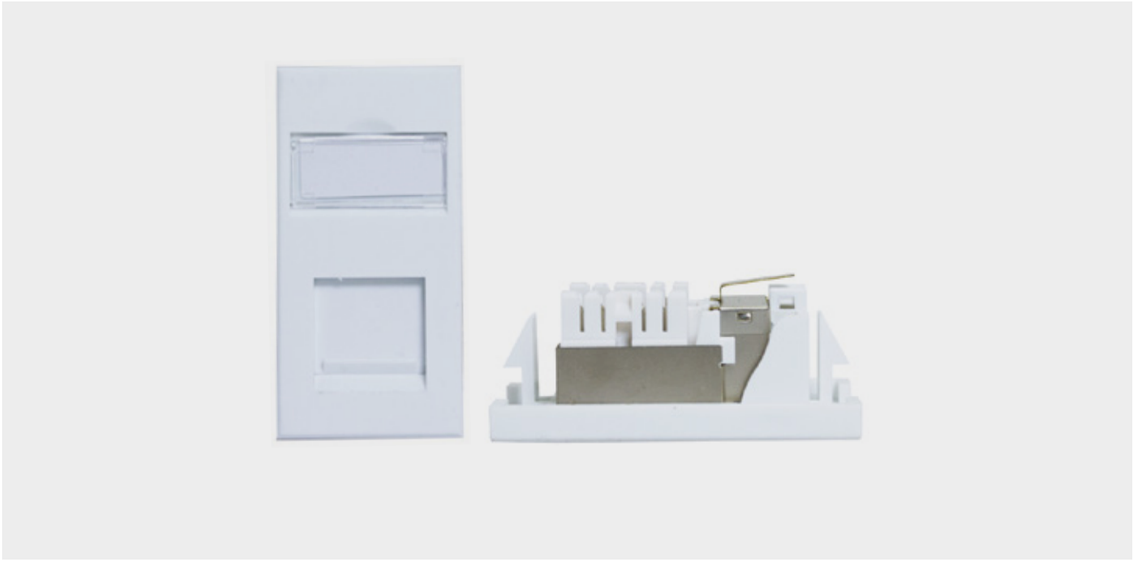
BCC NetSys-500™

Cat 6A Stuctured Cabling Systems

FTP Compact Module

BCC NetSys-500™ Cabling System

BRITISH CABLES COMPANY



Product summary

BCC NetSys Category 6A FTP Compact Modules have been designed to provide the exceptional performance required to support extremely high speed applications such as 10-Gigabit Ethernet. Category 6A compact modules can be fitted into single or dual gang Euro faceplates and can be combined with quarter blanks and/or voice modules to provide the required configuration.

The compact design provides one of the shallowest wall outlets on the market; making them the ideal solution wherever back-box depth is a problem. BCC NetSys Category 6A FTP Modules are fully compliant with the ANSI/TIA Category 6A standards and provide an outstanding transmission medium free from the problems of alien crosstalk. When used in conjunction with BCC NetSys Category 6A FTP Patch Panels and FTP Cable the user will achieve a link performance far exceeding the Category 6A requirements.

Features & benefits

- Cat 6A performance
- Suitable for 10-Gigabit Ethernet
- Ultra-slimline design
- Euro style module
- Interchangeable with other Euro Modules and blanks
- Individually QA tested
- Easy to use shield connection

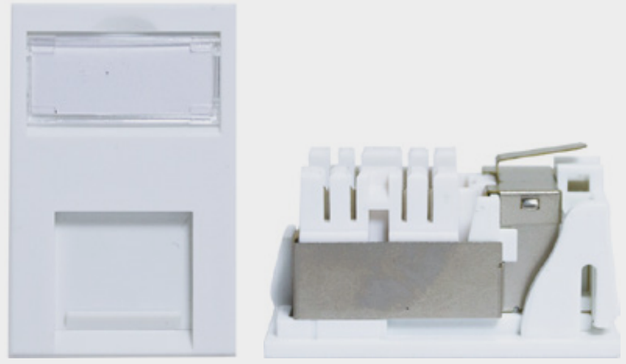
Item	Specification
Width (mm)	25
Depth (mm)	22
Height (mm)	50
Recommended back-box depth (mm)	32
Material	Polycarbonate/ABS thermoplastic resin, with grade UL94 VO at 1.5mm flame retardancy
Finish	High gloss
IDC labels	Colour coded to T568B
Cable guide	Integrated earth connection and cable tie position
Sockets	High performance shielded RJ45
IDC blocks	Industry standard IDC blocks
Conforms to	ANSI/TIA-568-C.2 Category 6A Specification

Part no	Description
58-C6AF-EM	BCC NetSys Cat 6A Compact Euro Module
51-1G2MSF	One Gang, Two Mod, Standard Faceplate
51-2G4MSF	Two Gang, Four Mod, Standard Faceplate
51-1G2MOF	One Gang, Two Mod, Office Faceplate
51-2G4MOF	Two Gang, Four Mod, Office Faceplate
51-FPB025	Faceplate Blank 1/4
51-FPB050	Faceplate Blank 1/2

FTP LJ6C Module

BCC NetSys-500™ Cabling System

BRITISH CABLES COMPANY



Product summary

BCC NetSys Category 6A FTP Modules have been designed to provide the exceptional performance required to support extremely high speed applications such as 10-Gigabit Ethernet. BCC NetSys LJ6C Modules are ideal for use in floorboxes, or any application that has an industry standard LJ6C aperture. Single and dual gang faceplates are available for up to four LJ6C modules in addition to panels suitable for Ackerman Floorboxes. Their attractive high gloss finish and easy to use labelling system makes them popular with both installers and end users alike. Installation is made easy with the unique colour coded cable saddle and the use of industry standard IDCs.

BCC NetSys Category 6A FTP Modules are fully compliant with the ANSI/TIA Category 6A Standards and provide an outstanding transmission medium free from the problems of alien crosstalk.

Features & benefits

- Cat 6A performance
- Suitable for 10-Gigabit Ethernet
- Ultra-slimline design
- LJ6C style module
- Interchangeable with other LJ6C modules and blanks
- Individually QA tested
- Easy to use shield connection

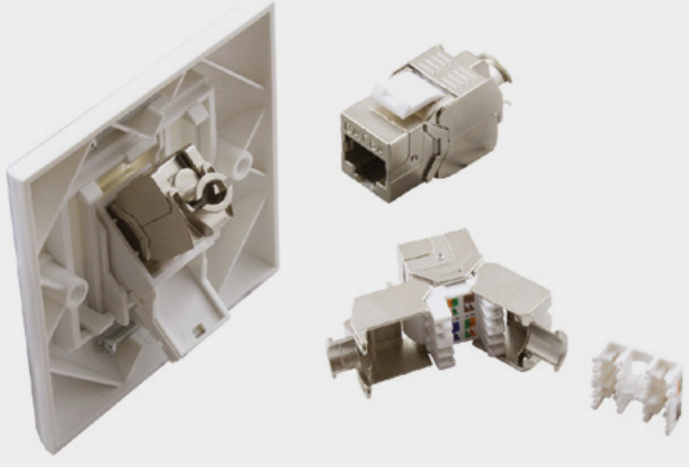
Item	Specification
Width (mm)	25
Depth (mm)	22
Height (mm)	39.5
Recommended back-box depth (mm)	32
Mounting hold size	22mm x 37mm
Panel thickness	2.0mm max
Material	Polycarbonate/ABS thermoplastic resin, with grade UL94 VO at 1.5mm flame retardancy
Finish	High gloss
IDC labels	Colour coded to T568B
Cable guide	Integrated cable tie position
Sockets	High performance shielded RJ45
IDC blocks	Industry standard IDC blocks
Conforms to	ANSI/TIA-568-C.2 Category 6A Specification

Part no	Description
58-C6AF-LJ6	BCC NetSys Cat 6A Compact LJ6C Module
51-1G2MSF-LJ6	One Gang, Two Mod Standard Faceplate
51-2G4MSF-LJ6	Two Gang, Four Mod Standard Faceplate
51-1G2MOF-LJ6	One Gang, Two Mod Office Faceplate
51-2GFMOF-LJ6	Two Gang, Four Mod Standard Faceplate
51-FPB025-LJ6	LJ6C Blank 1/4
51-FPB050-LJ6	LJ6C Blank 1/2

Keystone Module - Shielded

BCC NetSys-500™ Cabling System

BRITISH CABLES COMPANY



Product summary

BCC NetSys Category 6A Keystone Modules have been designed to provide the exceptional performance required to support extremely high speed applications, including 10-Gigabit Ethernet.

When used with BCC NetSys Category 6A Cable, the Category 6A Keystone Modules provide an outstanding transmission medium free from the problems of alien crosstalk.

The tool-less and snap-to-fit module ensures a quick and easy to terminate installation, and the standard Keystone fitting allows the use of the same module in patch panels, wall outlets and a variety of other applications.

Features & benefits

- Cat 6A performance
- Suitable for 10-Gigabit Ethernet
- Fully shielded die-cast design
- No special tooling required
- Industry standard Keystone fitting
- Tool-less snap-to-fit module

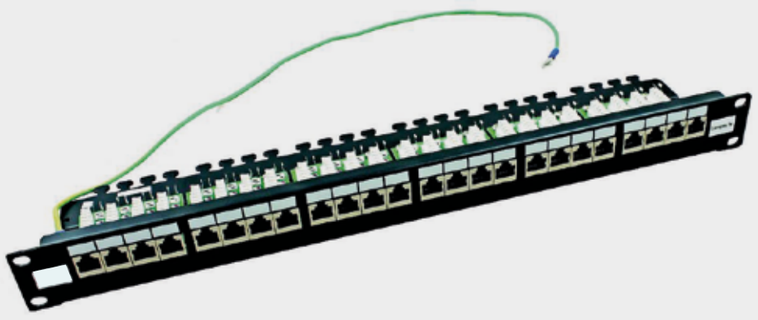
Part no	Description
53-C6AF-TL	BCC NetSys Cat 6A Tool-less Keystone Module - Shielded
51-ASFSF	BCC NetSys Angled Shuttered Euro Fascia

Item	Specification
Width (mm)	16.3
Depth (mm)	38
Height (mm)	21
Recommended back-box depth (mm)	32
Mounting hold size	19.3 x 14.7 mm
Copper conductor diameter	24 AWG
Life (Operations)	Min. 750
Shielding housing	Zinc die-cast
Colour code	T568B
Conforms to	ISO/IEC 11801;EN 50173-1 ANSI/TIA 568-C Category 6A IEEE802.3an 10-Gigabit Ethernet

Right Angled High Density Patch Panel

BCC NetSys-500™ Cabling System

BRITISH CABLES COMPANY



Product summary

BCC NetSys Category 6A Patch Panels provide exceptional performance for high speed LAN's including 10-Gigabit Ethernet applications. The boards are designed using the latest noise compensation techniques and the shielding feature can minimise the risk of EMI. The 2020 Series FTP Panel offers Cat 6A performance and has been designed to present the cable termination IDCs horizontally on a tray at the rear of the panel, making termination and Cable management easier.

All sockets in the panel are commonly linked through the panel and can be grounded to the rack using the earth wire provided. When combined with BCC NetSys Category 6A FTP Modules and Cable, the link will perform well in excess of Category 6A specifications.

Features & benefits

- Easy to install
- Suitable for 10-Gigabit Ethernet applications
- High Density 24 ports
- Rear Cable management
- Earth connection
- Robust all steel construction

Part no	Description
50-6AF24-1U-A	BCC NetSys Cat 6A 2020 24 Way FTP Panel

Item	Specification
Width (mm)	483 (19")
Depth (mm)	98
Height (mm)	44.5 (1u)
Material	Mild Steel
Finish	Matt black polyester paint
Socket	High performance side entry RJ45 jacks
Socket labels	Write-on silk screen on panel front
IDC Labelling	Colour coded to T568B
Conforms to	TIA/EIA-568-C Category 6A Specification

24 Way Unloaded Angled Keystone Patch Panel

BCC NetSys-500™ Cabling System

BRITISH CABLES COMPANY

Product summary

The BCC NetSys 24 Way Angled Patch Panel offers enhanced patch lead management in any style of cabinet. The patent pending design naturally sweeps patch leads to the side of the racking, without the panel protruding beyond the rack or cabinet profiles.

Supplied unloaded, the fully shielded patch panel accepts 10G high performance Keystone Modules which are simply clicked into position. The 24 way Keystone Panel offers high density and the capability for 10G data transmission performance levels. An integrated rear management tray supports the cabling and offers individual cable tie positions. For the optimum in on-site installation efficiency, BCC NetSys Express Pre-terminated and Pre-tested assemblies may be used.

Features & benefits

- Enhanced patch lead management
- For use in cabinets and open racks
- Patent pending design
- Suitable for BCC NetSys Express assemblies
- Integrated Cable management bar
- Earth connection
- Robust all steel construction

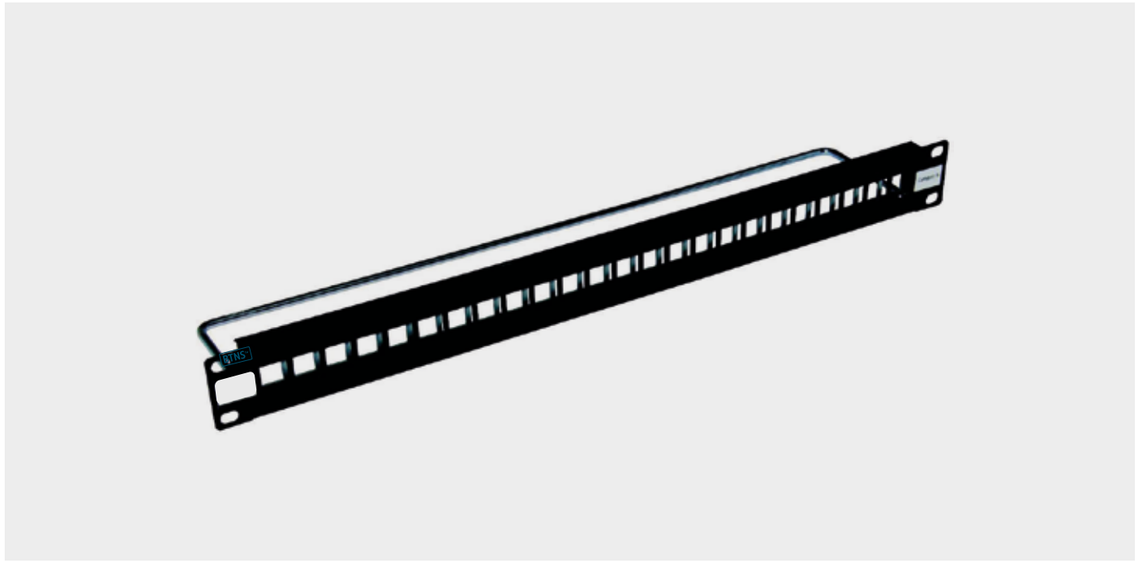
Part no	Description
50-6AF24-1U-MA	BCC NetSys 24 Way Unloaded Angled Keystone Patch Panel

Item	Specification
Width (mm)	483 (19")
Depth (mm)	130
Height (mm)	44.45
Material	Mild Steel
Finish	Fine textured black paint (front) Bright zinc plate (rear)

Unloaded FTP Keystone Patch Panel

BCC NetSys-500™ Cabling System

BRITISH CABLES COMPANY



Product summary

The BCC NetSys 24/48 Way Keystone Patch Panels offer high density and the capability for 10G data transmission performance levels.

Supplied unloaded - the patch panel installation and termination time can be greatly reduced when BCC NetSys Tool-less Snap-to-fit Keystone Modules are used in the panel. To further increase on-site installation efficiency, BCC NetSys Express Pre-terminated and Pre-tested Modules can also be used.

Features & benefits

- Fully shielded
- High density, 24 ports
- Suitable for FTP Tool-less Keystone Modules
- Suitable for BCC NetSys Express assemblies
- Integrated Cable management tray
- Earth connection
- Robust all steel construction

Part no	Description
50-6AF24-1U-M	BCC NetSys 24 Way Unloaded FTP Keystone Patch Panel
50-6AF48-2U-M	BCC NetSys 48 Way Unloaded FTP Keystone Patch Panel

Item	Specification
Width (mm)	483 (19")
Depth (mm)	155
Height (mm)	44.45
Material	Mild Steel
Finish	Fine textured black paint (front) Bright zinc plate (rear)

BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 6A U/FTP Cable - B2ca-s1a, d0, a1

B2ca-s1a, d0, a1
DoP: BCC1011

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications

Suitable for internal use of Local Area Networks and Analogue & Digital video applications, supporting Gigabit Ethernet and POE.

Category

6 Data Cables

Standard References

ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-10-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design

1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Individual Pair Screening
Al Foil

4. Cross member
Polyethylene

5. Drain Wire
Tinned Copper

6. Ripcord
Nylon

7. Sheath
LSZH - Orange

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
23 AWG	1.35 (±0.2)	7.8 (±0.5)	50	-10 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz) 100±22 (300MHz to 500MHz)	93.8	5.6	65	5000	2.5

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	75.3	72.3	68.0	65.0	20.0	45
4	3.7	66.3	63.3	56.0	53.0	23.0	45
10	5.9	60.3	57.3	48.0	45.0	25.0	45
16	7.4	57.2	54.2	43.9	40.9	25.0	45
20	8.3	55.8	52.8	42.0	39.0	25.0	45
31.25	10.4	52.9	49.9	38.1	35.1	23.6	45
62.5	14.9	48.4	45.4	32.1	29.1	21.5	45
100	19.0	45.3	42.3	28.0	25.0	20.1	45
200	27.5	40.8	37.8	22.0	19.0	18.0	45
250	31.0	39.3	36.3	20.0	17.0	17.3	45
300	34.2	38.1	35.1	18.5	15.5	17.3	45
500	45.3	34.8	31.8	14.0	11.0	17.3	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 6A U/FTP Cable - Cca-s1a, d0, a1

Cca-s1a, d0, a1
DoP: BCC1012

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
Suitable for internal use of Local Area Networks and Analogue & Digital video applications, supporting Gigabit Ethernet and POE.

Category
6 Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-6-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Individual Pair Screening
Al Foil

4. Cross member
Polyethylene

5. Drain Wire
Tinned Copper

6. Ripcord
Nylon

7. Sheath
LSZH - Green

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
23 AWG	1.35 (±0.2)	7.8 (±0.5)	50	-10 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz) 100±22 (300MHz to 500MHz)	93.8	5.6	65	5000	2.5

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	75.3	72.3	68.0	65.0	20.0	45
4	3.7	66.3	63.3	56.0	53.0	23.0	45
10	5.9	60.3	57.3	48.0	45.0	25.0	45
16	7.4	57.2	54.2	43.9	40.9	25.0	45
20	8.3	55.8	52.8	42.0	39.0	25.0	45
31.25	10.4	52.9	49.9	38.1	35.1	23.6	45
62.5	14.9	48.4	45.4	32.1	29.1	21.5	45
100	19.0	45.3	42.3	28.0	25.0	20.10	45
200	27.5	40.8	37.8	22.0	19.0	18.0	45
250	31.0	39.3	36.3	20.0	17.0	17.3	45
300	34.2	38.1	35.1	18.5	15.5	17.3	45
500	45.3	34.8	31.8	14.0	11.0	17.3	45

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BCC Data-Tec™ - Networking Cable - U/UTP

4 Pair Cat 6A U/FTP Cable - Dca-s1a, d0, a1

Dca-s1a, d0, a1
DoP: BCC1013

CPR COMPLIANT

BRITISH CABLES COMPANY

Applications
Suitable for internal use of Local Area Networks and Analogue & Digital video applications, supporting Gigabit Ethernet and POE.

Category
6 Data Cables

Standard References
ANSI/TIA-568-C.2
ISO/IEC 11801 2ND edition
EN50173-1 & EN50288-6-1
EN 50575:2014/A1:2016
IEC 60754-1&2
IEC 61034-1
RoHS 2002/95/EC

Design
1. Conductor
Solid annealed copper

2. Insulation
Pair 1: WHITE-Blue/Blue
Pair 2: WHITE-Orange/Orange
Pair 3: WHITE-Green/Green
Pair 4: WHITE-Brown/Brown

3. Individual Pair Screening
Al Foil

4. Cross member
Polyethylene

5. Drain Wire
Tinned Copper

6. Ripcord
Nylon

7. Sheath
LSZH - Blue

Standard Put Up Length
305 metres

Physical Characteristics

Conductor Diameter Nom. (mm)	Insulation Diameter Nom. (mm)	Overall Diameter Nom. (mm)	Cable Weight Nom. (Kg/Km)	Temperature Range (°C)	Min. Bend Radius (install) (mm)
23 AWG	1.35 (±0.2)	7.8 (±0.5)	50	-10 ~ +60	8 X OD

Electrical Characteristics at 20°C (part 1)

Impedance (Ω)	Max. Conductor DC Resistance (Ω/km)	Mutual Capacitance at 1KHz (nF/100m)	NVP (%)	Min. Insulation Resistance (MΩ*km)	Max. Resistance Unbalance (%)
100±15 (1MHz to 100MHz) 100±22 (300MHz to 500MHz)	93.8	5.6	65	5000	2.5

Electrical Characteristics at 20°C (part 2)

Frequency (MHz)	Nominal Attenuation (dB/100m)	Minimum NEXT (dB)	Minimum PSNEXT (dB)	Minimum ELFEXT (dB)	Minimum PSELFEXT (dB)	Min. Return Loss (dB)	Maximum SKEW (ns/100m)
1	2.0	75.3	72.3	68.0	65.0	20.0	45
4	3.7	66.3	63.3	56.0	53.0	23.0	45
10	5.9	60.3	57.3	48.0	45.0	25.0	45
16	7.4	57.2	54.2	43.9	40.9	25.0	45
20	8.3	55.8	52.8	42.0	39.0	25.0	45
31.25	10.4	52.9	49.9	38.1	35.1	23.6	45
62.5	14.9	48.4	45.4	32.1	29.1	21.5	45
100	19.0	45.3	42.3	28.0	25.0	20.10	45
200	27.5	40.8	37.8	22.0	19.0	18.0	45
250	31.0	39.3	36.3	20.0	17.0	17.3	45
300	34.2	38.1	35.1	18.5	15.5	17.3	45
500	45.3	34.8	31.8	14.0	11.0	17.3	45

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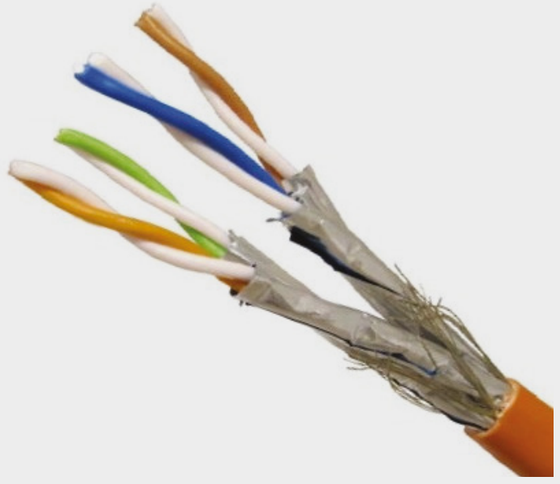
S/FTP Solid Cable

BCC NetSys-500™ Cabling System

BRITISH CABLES COMPANY



Product summary

BCC NetSys Category 6A S/FTP Cable has been designed to provide the exceptional performance required to support extremely high speed applications, including 10-Gigabit Ethernet.

The individually shielded pairs ensure maximum transmission, free from the problems of NEXT and alien crosstalk. The sheath is a Low Smoke Zero Halogen (HFFR) material, as specified in many public buildings. Available in CPR Euroclassification B2ca.

Features & benefits

- Exceeds requirements of ISO/IEC 11801, IEC 61156-5, EN 50173-1 and prEN 50288-10-1
- Individually screened pairs and overall copper braid
- Suitable for applications up to class EA (500 MHz)
- Applicable for PoE

Part no	Description
BCCXCMB36A5207	Cat 6A S/FTP HFFR Solid Cable (Violet)

Item	Specification
Minimum Bending Radius	- Installation >65mm - Installed >30mm
Tensile strength	<95N
Crush resistance	>1000N/10cm
Impact	>10 impacts
Temperature range	- During Installation 0°C to + 50°C - In Operation -20 to + 60°C
Loop resistance	146Ω/km at 20°C
Mutual capacitance	42 pF/m
Impedance at 100 MHz	100Ω+/- 5Ω

Item	Specification
Transfer impedance at 1/10/30MHz	<6/10/20m Ω/m
Coupling attenuation	> 75dB
Near end balance attenuation LCL	> 40dB
Delay skew	4 ns/100m
NVP	80%
Return loss (dB)	25
Inner conductor	Bare Copper Wire (AWG 23)
Wire	1.3mm ø
Screen pair	Alu PETP foil
Screen	Tinner braided copper
Sheath	FRNC/LSOH orange (RAL 2003)
LSOH standards	IEC 60754/1/-2, EN 50267-2-1/-2-2 VDE 0482-267-2-1/-2-2
Flame propagation	IEC 60332-1/-2, EN 60332-1-2 VDE 0482-332-1-2
Flame spread	IEC 60332-3-24, EN 60332-3-24
Smoke density	IEC 61034-1/-2, EN 61034-1/-2 VDE 0482-1034-1/-2
PoE	IEEE 802.3 af
EMC	Shielded
Attenuation	43 db/100m
NEXT/PS NEXT (dB)	77/74
ACR-N (dB)	34
PS-ACR-N (dB)	31
ACR-F (dB)	43
PS-ACR-F (dB)	40

S/FTP Cat6A Patch Leads

BCC NetSys-500™ Cabling System

BRITISH CABLES COMPANY

Product summary

BCC NetSys Cat 6A S/FTP Patch Leads are designed to complete the Cat 6A Channel, providing support for extremely high-speed applications including 10GBASE-T. The Patch Leads are made from shielded Cat 6A cable and are terminated using high performance modular plugs.

The fully shielded cable increases signal isolation and helps to prevent contaminant noise from entering the lead. These S/FTP patch leads are complementary to the CCS Cat 6A Cabling System and will provide support for future bandwidth-hungry applications. Leads are available from stock in lengths from 0.5 to 10 metres, and in a number of
different colours.

Features & benefits

- Independently tested to Cat 6A and 10GBASE-T channel performance standards
- Conform to ANSI/TIA 568-C Category 6A
- Uses fully shielded cable
- Available from stock in lengths from 1 to 5 metres

Item	Specification
Plug	High performance modular lpug
Wiring specification	Straight through
Cable	Category 6A shielded cable
Cable shield	Overall braid and individually foiled pairs
Boot	Low profile with latch protection
Conforms to	ANSI/TIA 568-C Category 6A

Part no	Description
52-6ASFZ-XX-005	0.5M Cat6A Patch lead
52-6ASFZ-XX-010	1.0M Cat6A Patch lead
52-6ASFZ-XX-015	1.5M Cat6A Patch lead
52-6ASFZ-XX-020	2.0M Cat6A Patch lead
52-6ASFZ-XX-030	3.0M Cat6A Patch lead
52-6ASFZ-XX-050	5.0M Cat6A Patch lead
52-6ASFZ-XX-100	10.0M Cat6A Patch lead

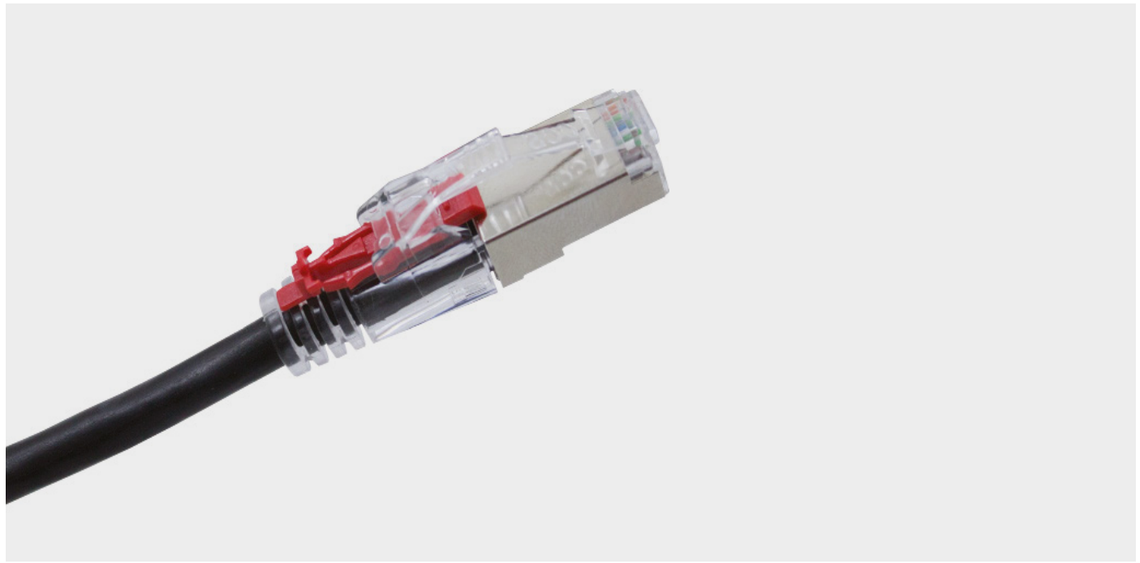
XX can be replaced with the below to denote colour

BK = Black	VT = Violet	YE = Yellow
BU = Blue	GY = Grey	WH = White
BR = Brown	GN = Green	TQ = Turquoise
RD = Red	OR = Orange	PK = Pink

Cat6A Patchlock Leads

BCC NetSys-500™ Cabling System

BRITISH CABLES COMPANY



Product summary

The Patchlock leads from BCC NetSys provide extra security when installed in public areas as they prevent the risk of unauthorised disconnection of critical network connections. A Removal Key must be used to release the secure lock thus allowing the patch lead to be removed. The Patch Leads are made from shielded BCC NetSys Cat 6A cable and are terminated using high performance modular plugs. The fully shielded cable increases signal isolation and helps to prevent contaminant noise from entering the lead. Leads are available in lengths from 0.5 to 5 metres, and in a number of different colours.

BCC NetSys Cat 6A SFTP Patch Leads are designed to complete the Cat 6A Channel, providing support for extremely highspeed applications including 10GBASE-T.

Features & benefits

- Independently tested to Cat 6A and 10GBASE-T channel performance standards
- Conform to ANSI/TIA 568-C Category 6A
- Uses fully shielded cable
- Available in lengths from 0.5 to 5 metres
- Available with blue, red, yellow or green latches
- Offers enhanced security

Item	Specification
Plug	High performance 50um gold plated
Cable	Category 6A shielded cable
Cable shield	Overall braid and individually foiled pairs
Conforms to	ANSI/TIA 568-C Category 6A
Boot & secure lock	Polycarbonate
Key	Polycarbonate

Part no	Description
52-6ASFZ-XX-005L	0.5M Cat6A Patchlock lead
52-6ASFZ-XX-010L	1.0M Cat6A Patchlock lead
52-6ASFZ-XX-015L	1.5M Cat6A Patchlock lead
52-6ASFZ-XX-020L	2.0M Cat6A Patchlock lead
52-6ASFZ-XX-030L	3.0M Cat6A Patchlock lead
52-6ASFZ-XX-050L	5.0M Cat6A Patchlock lead
52-6ASFZ-XX-100L	10.0M Cat6A Patchlock lead

XX can be replaced with the below to denote colour

BK = Black	VT = Violet	YE = Yellow
BU = Blue	GY = Grey	WH = White
BR = Brown	GN = Green	TQ = Turquoise
RD = Red	OR = Orange	PK = Pink

Data and Server Cabinets

Mini Cabinet

Data and Server Cabinets

Product summary

The BCC NetSys compact design of the Mini Cabinet makes it the ideal housing for small network requirements, allowing integration of voice, data, ISDN and internet connections in one neat unit. The cabinet has been designed to fit perfectly into both the office and home environment, and has an 8u capacity for the Office System range of 10” networking hardware and patching equipment. The lockable smoked glass door enables easy patching from the front of the unit, and cable access points are situated in the top and back to assist installation. For maximum cable access the rear panel can be removed. There are added ventilation slots in both sides with a removable top plate to increase ventilation.

Features & benefits

- Ideal for the small office/home environment
- Available with attractive black finish
- Lockable glass front door
- Cable access positioned in top and rear of unit

Part no	Description
17-50HO-8U-C	Mini Cabinet 8U
17-8U-55	10” Shelf
17-1U-BP10	10” Blank Panel 1u
17-2U-BP10	10” Blank Panel 2u
17-B5P10	10 “ Brush Strip Panel

Item	Specification
Wall mount cabinet	
Finish	Black powder coat to BS6496
Material	Mild steel to BS1449
Width (mm)	300
Depth (mm)	350
Height (mm)	400
Door	Smoked Grey glass
Capacity	8 units (8u)
Shelf	
Finish	Black powder coat to BS6496
Material	Mild steel to BS1449
Width (mm)	260 (10”)
Depth (mm)	140
Height (mm)	44
Blank panel	
Finish	Black powder coat to BS6496
Material	Mild steel to BS1449
Width (mm)	260 (10”)
Depth (mm)	10
Height (mm)	1u: 44, 2u: 88

Server Cabinets

Data and Server Cabinets

Product summary

The BCC NetSys Server Cabinets have been designed to offer the optimum housing for servers and networking hardware. Mesh front and rear doors plus a vented roof add up to offer maximum ventilation. The cabinets are fitted with quick release front and rear perforated doors, fitted with lockable swing handles. The side panels can be fitted with cabinet locks. The large floor aperture gives maximum cable access, plus there is cabling access in the top. All apertures are fitted with blanking plates as standard. These 800 wide cabinets have additional cable access next to the rack profiles to allow easy routing of cables from the front to the rear of the cabinet. These Server Cabinets are available in various configurations and are supplied fully assembled on a pallet, but all cabinets can be easily dismantled if required. The high quality attractive black finish ensures the cabinet will complement high specification office environments.

Features & benefits

- Fully removable steel sides
- Design allows for maximum ventilation
- Lockable doors front and rear
- Adjustable 19” mounting profiles front and rear
- High quality paint finish (Black powder coat)
- 800 kg static load capacity
- Supplied fully assembled

Conforms to the following standards

IEC 297-2, DIN 41494-7, DIN 41491-1, BS 5850/3192

Part no	Description
17-F61-12U-682M	Server Cabinet 12u 600w x 1000d
17-F61-18U-748M	Server Cabinet 18u 600w x 1000d
17-F61-21U-1082M	Server Cabinet 21u 600w x 1000d
17-F61-24U-1215M	Server Cabinet 24u 600w x 1000d
17-F61-27U-1348M	Server Cabinet 27u 600w x 1000d
17-F61-39U-1882M	Server Cabinet 39u 600w x 1000d
17-F61-42U-2015M	Server Cabinet 42u 600w x 1000d
17-F61-45U-2148M	Server Cabinet 45u 600w x 1000d
17-F81-12U-682M	Server Cabinet 12u 800w x 1000d
17-F81-18U-748M	Server Cabinet 18u 800w x 1000d
17-F81-21U-1082M	Server Cabinet 21u 800w x 1000d
17-F81-24U-1215M	Server Cabinet 24u 800w x 1000d
17-F81-27U-1348M	Server Cabinet 27u 800w x 1000d
17-F81-39U-1882M	Server Cabinet 39u 800w x 1000d
17-F81-42U-2015M	Server Cabinet 42u 800w x 1000d
17-F81-45U-2148M	Server Cabinet 45u 800w x 1000d
17-720F-S-BK	Fixed Shelf 715 mm

Bespoke Co-location Data Centre Cabinets

Data and Server Cabinets

BRITISH CABLES COMPANY

Product summary

The BCC NetSys range of Data Centre Server Cabinets provide a flexible solution for data centre racks layouts. Design and built to the clients configuration, the cabinets are modular and use pre-loaded and retrospective compartment options for installation. This flexibility gives Data Centre Managers maximum use of space within cabinets, maximum revenues per U of rack and best environment optimisation of rack layout.

BCC NetSys Co-location Cabinets include internal vertical Cable management, a large access aperture in the base and brushed cable entry positions in the roof. The cabinets support 1500kgs loading capacity and are manufactured in the UK from heavy duty frame construction on 2mm steel. Supplied with reinforced mesh doors, they can be interchanged with solid steel or advanced IP-based locking systems. Multiple rack layouts are available, please speak to your sales person so we can design a solution to fit your requirements.

Features & benefits

- Heavy duty frame construction from 2mm steel with 1500kgs loading capacity
- Two pairs of fully adjustable 19" profiles with 'U' numbers & with 1/4 & 1/2 Co-location fixings
- 2 x 300mm enclosed cable tray c/w access panels
- Large aperture in base
- 2 x brushed cable entry positions in roof at rear, one each side midway back
- 2 to 5 x Full width/depth shelf's c/w door bars to split cabinet into 4 x secure compartments
- 2 to 5 x Reinforced 80% mesh doors fitted front & rear, each section with its own key
- 2 x side panels
- Airflow kit fitted at front of cabinet to minimise airflow around the 19" posts
- Front & rear posts set back 130mm
- Doors earthed to cabinet
- 10 way 80A earth bar fitted at rear in base
- Baying kit supplied with each cabinet

Floor Standing Cabinets

Data and Server Cabinets

BRITISH CABLES COMPANY

Product summary

The BCC NetSys range of 19" Floor Standing Cabinets are an ideal solution for housing network hardware and patching equipment. The robust design makes them suitable for use in IT departments and offices. The cabinets are available in various configurations and are supplied fully assembled. Each cabinet utilises a ventilated top and four 19" adjustable front and rear mounting posts. The cabinets feature lift-off sides and a lockable door for maximum access to the internal equipment, with cable access in the base for convenient routing of network cables. The side panels can be fitted with cabinet locks. The cabinet frameworks are finished in black with a Perspex lockable front door. These 19" Floor Standing Cabinets incorporate the essential features for data communication environments - security, durable construction, easy access and protection from dust or contamination for the network equipment.

Features & benefits

- Ventilated top
- Adjustable mounting posts
- Lockable Perspex front door
- Lockable and removable rear door
- Cable access in base
- 800 kg static load capacity
- Supplied fully assembled

Accessories

A full range of cabinet accessories are available including; wall mounting frames, PDUs, fixed shelves, telescopic shelves, castors, cage nuts, baying kits, roof mounting fan units and plinths. See the cabinet accessories page.

Part no	Description
17-F66P-12U-682	Floor Standing 12u 600w x 600d
17-F66P-18U-748	Floor Standing 18u 600w x 600d
17-F66P-21U-1082	Floor Standing 21u 600w x 600d
17-F66P-24U-1215	Floor Standing 24u 600w x 600d
17-F66P-27U-1348	Floor Standing 27u 600w x 600d
17-F66P-39U-1882	Floor Standing 39u 600w x 600d
17-F66P-42U-2015	Floor Standing 42u 600w x 600d
17-F68P-12U-682	Floor Standing 12u 600w x 800d
17-F68P-18U-748	Floor Standing 18u 600w x 800d
17-F68P-24U-1215	Floor Standing 24u 600w x 800d
17-F68P-27U-1348	Floor Standing 27u 600w x 800d
17-F68P-39U-1882	Floor Standing 39u 600w x 800d
17-F68P-42U-2015	Floor Standing 42u 600w x 800d
17-F86P-21U-1082	Floor Standing 21u 800w x 600d
17-F86P-27U-1348	Floor Standing 27u 800w x 600d
17-F86P-42U-2015	Floor Standing 42u 800w x 600d
17-F88P-21U-1082	Floor Standing 27u 800w x 800d
17-F88P-27U-1348	Floor Standing 27u 800w x 800d
17-F88P-42U-2015	Floor Standing 42u 800w x 800d

Wall Mounting Cabinet

Data and Server Cabinets

Product summary

The BCC NetSys compact design of the 19" Wall Mounting Cabinets make them ideal for smaller networks and workgroups.

The cabinets are available in various sizes and are supplied fully assembled. Each cabinet comprises a welded steel frame and adjustable front and rear 19" mounting profiles. Cable access positions with removable plates are situated in the top and bottom of the cabinet.

The cabinets feature a ventilation slots in the top, have a lockable glass front door, and removable sides. The cabinet is finished in a high quality attractive black.

Features & benefits

- Ventilated top
- Adjustable mounting posts
- Removable side panels
- Removable cable plates access in base and top
- Lockable glass front door
- Supplied fully assembled

Accessories

A full range of cabinet accessories are available including; wall mounting frames, PDUs, fixed shelves, telescopic shelves, castors, cage nuts, baying kits, roof mounting fan units and plinths. See the cabinet accessories page.

Part no	Description
17WB1-6U-340	Wall Mounting Cabinet 6u 550 × 450mm
17WB1-9U-470	Wall Mounting Cabinet 9u 550 × 450mm
17WB1-12U-600	Wall Mounting Cabinet 12u 550 × 450mm
17WB1-15U-735	Wall Mounting Cabinet 15u 550 × 450mm

Part no	Description
17WB-18U-875	Wall Mounting Cabinet 18u 550 × 450mm
17WB2-6U-340	Wall Mounting Cabinet 6u 550 × 550mm
17WB2-9U-470	Wall Mounting Cabinet 9u 550 × 550mm
17WB2-12U-600	Wall Mounting Cabinet 12u 550 × 550mm
17WB2-15U-735	Wall Mounting Cabinet 15u 550 × 550mm
17WB2-18U-875	Wall Mounting Cabinet 18u 550 × 550mm
17WB2-21U-1015	Wall Mounting Cabinet 21u 550 × 550mm
17WB3-6U-340	Wall Mounting Cabinet 6u 600 × 450mm
17WB3-9U-470	Wall Mounting Cabinet 9u 600 × 450mm
17WB3-12U-600	Wall Mounting Cabinet 12u 600 × 450mm
17WB3-15U-735	Wall Mounting Cabinet 15u 600 × 450mm
17WB3-18U-875	Wall Mounting Cabinet 18u 600 × 450mm
17WB3-21U-1015	Wall Mounting Cabinet 21u 600 × 450mm
17WB4-6U-340	Wall Mounting Cabinet 6u 600 × 550mm
17WB4-9U-470	Wall Mounting Cabinet 9u 600 × 550mm
17WB4-12U-600	Wall Mounting Cabinet 12u 600 × 550mm
17WB4-15U-735	Wall Mounting Cabinet 15u 600 × 550mm
17WB4-18U-875	Wall Mounting Cabinet 18u 600 × 550mm
17WB4-21U-1015	Wall Mounting Cabinet 21u 600 × 550mm
17WB5-6U-340	Wall Mounting Cabinet 6u 600 × 600mm
17WB5-9U-470	Wall Mounting Cabinet 9u 600 × 600mm
17WB5-12U-600	Wall Mounting Cabinet 12u 600 × 600mm
17WB5-15U-735	Wall Mounting Cabinet 15u 600 × 600mm
17WB5-18U-875	Wall Mounting Cabinet 18u 600 × 600mm
17WB3-21U-1015	Wall Mounting Cabinet 21u 600 × 600mm

High Density Patching Frame

Data and Server Cabinets

Product summary

The BCC NetSys High Density Patching Frame is a simple solution for housing 42 x 24 way patch panels. The frame is also suitable for the mounting of active equipment and the accommodation of standard power distribution units.

The frame comes fully assembled and is of welded steel construction. It's designed to have no tight corners or sharp edges - the edges are radiused in key areas to prevent over stressing of cables.

A 3-way roof mounting fan unit is available if additional cooling is required, as are optional lockable doors and removable rear or side panels. Patching frames can be installed separately, side by side, back to back or against a wall depending on available space and customer requirements.

Features & benefits

- Strong welded steel construction
- Optional lockable front door and removable rear or side panels
- 3-way roof mounting fan unit available
- No sharp edges or tight corners (prevents over stressing of cables)
- Supplied fully assembled

Accessories

A full range of cabinet accessories are available including; PDUs, fixed shelves, telescopic shelves, cage nuts, roof mounting fan units and plinths.

Part no	Description
17-42U-PF	42u High Density Patching Frame
17-42U-PF-SP	42u Patching Frame Side Panel
17-42U-PF-RD	42u Patching Frame Rear Door
17-42U-PF-LFD	42u Patching Frame Lockable Front Door

Wall Mounting Frames

Data and Server Cabinets

Product summary

The BCC NetSys 19” Wall Mounting Frames are an ideal alternative when a lockable cabinet isn’t required. They are ideal for mounting patch panels and other shallow 19” rack mount equipment, and their lightweight construction means they can be mounted on virtually any wall.

Features & benefits

- Ideal for installation sites where space is limited such as risers and shafts
- Standard finish black (other colours on request)
- Easy access to internal equipment
- Manufactured in the UK

Accessories

A full range of cabinet accessories are available including; PDUs, fixed shelves, telescopic shelves, castors, cage nuts, baying kits, roof mounting fan units and plinths.

Part no	Description
17-WMF1-1U	1u 11” Wall Mounting Frame 50mm Deep
17-WMF2-2U	2u 19” Wall Mounting Frame 200mm Deep
17-WMF2-3U	3u 19” Wall Mounting Frame 200mm Deep
17-WMF2-4U	4u 19” Wall Mounting Frame 200mm Deep
17-WMF2-6U	6u 19” Wall Mounting Frame 200mm Deep
17-WMF3-3U	3u 19” Wall Mounting Frame 350mm Deep
17-WMF3-6U	6u 19” Wall Mounting Frame 350mm Deep

Cabinet Accessories

Data and Server Cabinets

Product summary

The BCC NetSys range of cabinet accessories complement the variety of floor standing and wall mounted cabinets. Combined together, these products offer a complete cable patching solution.

Heavy duty castors can be fitted to raise the cabinet clear of the floor and allow the cabinet to be moved across even surfaces. Cage nuts are used to fix internal equipment into the cabinet. Earth bonding kits enable two cabinets to be joined together. Steel plinths fit beneath the cabinet to allow cable access from the base, sides and rear and are available in various widths and depths. Vertical Cable management offers an ideal way to keep your cabling tidy and maximise airflow.

Part no	Description
17-CAGEC-NB	Cage Nuts and Bolts (50)
17-EBK	Earth Bonding Kit (2)
17-JF	Cabinet Feet (4)
17-HDC	Heavy Duty Castors 1000kg
17-C	Standard Castors 300kg
17-4RCMU	4 Ring Cable management Bar
17-5RCMU	5 Ring Cable management Bar
17-BSP19	Brush Strip Panel
17-1U-BP19	1u Blank Panel
17-2U-BP19	2u Blank Panel
17-3U-BP19	3u Blank Panel
17-1U-DP19	1u Dump Panel
17-2U-DP19	2u Dump Panel
17-18U-VCM	Vertical Cable management 18U
17-27U-VCM	Vertical Cable management 27U
17-39U-VCM	Vertical Cable management 39U
17-PL66	Vertical Cable management 42U
17-42U-VCM	Plinth 600 x 600 mm
17-PL68	Plinth 600 x 800 mm
17-PL88	Plinth 800 x 800 mm
17-CVS-1U-300	Cantilevered Vented Shelf 1U 300 mm
17-CVS-1U-400	Cantilevered Vented Shelf 1U 400 mm
17-FVS-315	Fixed Vented Shelf 315 mm
17-FVS-515	Fixed Vented Shelf 515 mm
17-FVS-715	Fixed Vented Shelf 715 mm
17--2W-FT	2 Way Fan Tray
17-4W-FT	4 Way Fan Tray
17-4W-FT	4 Way Fan Tray
17-4W-1U-HDPU	4 Way 1U Horizontal PDU
17-6W-VPDU	6 Way Vertical PDU
17-84-VPDU	8 Way Vertical PDU
17-10W-VPDU	10 Way Vertical PDU
17-12W-VPDU	12 Way Vertical PDU
17-4W-HDPU-10	10” Cabinet 4 Way 1U Horizontal PDU

Accessories

Accessories

BCC NetSys Cabling System

Product summary

BCC NetSys are offering a range of networking accessories to help install professional cabling systems. The BCC NetSys Cable Tidy Panel enables the neat routing of cables within a 19" rack. These Cable management Panels are designed to give extra support for patch leads and prevents obscuring other equipment, while delivering a professional finish. The BCC NetSys Cable Stripper is the ideal way of stripping data cables. Its fully encapsulated blades ensure a precisely controlled and constant cutting depth. The BCC NetSys Punch down tool is perfect when terminating the back of any BCC NetSys RJ45 Patch Panels or Module. The universal BCC NetSys crimp tool works with both RJ45 and RJ12 plugs. Also stocking BCC NetSys RJ45 plugs which are suitable for terminations on both Stranded Patch and Solid core cable. Alternatively, combine all the essential on site tools in the BCC NetSys installation kit to get your structured network up and working with ease. The kit includes: 1 x either 100m or 500m reel of Cat5e, Cat6 or Cat6a Solid LSOH Shielded Cable (price will vary), 1 x IDC Punch-down Tool, 1 x Cable Stripper, 1 x Continuity Tester, 1 x Cable ties (2.5mm x 100mm pk100).

Features & benefits

- Install structured cabling systems with ease
- Install equipment to a professional standard

Part no	Description
90-1000-120-0	BCC NetSys 1U 4 Ring Cable Tidy
54-RJ45P	BCC NetSys RJ45 Plug
54-RJ45-B-GY	BCC NetSys RJ45 Boot - Grey
90-1000-104-0	BCC NetSys IDC Punch-down Tool
90-1000-115-0	BCC NetSys Cable Stripper
90-1000-103-0	BCC NetSys RJ45 Crimp Tool
91-CT-01	BCC NetSys Connectivity Tester
91-IK-01	BCC NetSys Installation Kit
54-COUP-C5E	BCC NetSys-100™ Coupler

General technical information

American Wire Gauge (AWG) Conductors (of bare or tinned copper)

Flexible Conductors	AWG	24	22	20	18	16	14	12
Number of strands		7	7	7	7	19	19	19
Gauge single strand	AWG	32	30	28	26	29	27	25
Diameter single strand	mm	0.2	0.25	0.32	0.40	0.28	0.36	0.45

Solid Conductors	AWG	24	22	20	18	16	14	12
Diameter	mm	0.51	0.64	0.81	1.02	1.29	1.63	2.05

All Conductors	AWG	24	22	20	18	16	14	12
Cross section	mm^2	0.20	0.32	0.52	0.82	1.37	2.08	3.31
Max. DC resistance	Ω/km	88	57.4	32.16	22.7	15.47	9.36	5.61
Max. Recommended current 2 or 3 core cable	Amps	2.7	2.8	3.75	5	6.25	8	12
Max. Recommended current 4 or 5 core cable	Amps	2.2	2.25	3	4	5	6.4	9.6
Max. Recommended current 6 to 19 core cable	Amps	1.9	1.95	2.6	3.5	4.35	5.6	8.4
Max. Recommended current 20 to 36 core cable	Amps	1.35	1.4	1.65	2.5	3.12	4	6

Metric Conductors (of bare copper according to IEC 60228)

Conductor	mm^2	0.75	1.0	1.5	2.5	4.0
Max. Recommended current 2 or 3 core cable	Amps	≤ 5	≤ 5.70	≤ 6.25	≤ 8	≤ 12

Flexible Conductors, class 2	mm^2	0.055	0.22	0.50	0.75	1.0	1.5	2.5	4.0	6.0
Number of strands		7	7	7	7	7	7	7	7	7
Diameter single strand	mm	0.1	0.2				0.53			
Max. DC resistance	Ω/km	345	86.2	36.0	24.5	18.1	12.1	7.41	4.61	3.08
Flexible Conductors, class 5	mm^2	0.055	0.22	0.50	0.75	1.0	1.5	2.5	4.0	6.0
Number of strands				16	24	32	30	50	56	84
Diameter single strand	mm			0.2	0.2	0.2	0.24	0.24	0.29	0.29
Max. DC resistance	Ω/km			39.0	26.0	19.5	13.3	7.98	4.95	3.30

Max. Recommended current 2 or 3 core cable	Amps	2.7	2.8	3.75	5	6.25	8			12
Max. Recommended current 4 or 5 core cable	Amps	2.2	2.25	3	4	5	6.4			9.6
Max. Recommended current 6 to 19 core cable	Amps	1.9	1.95	2.6	3.5	4.35	5.6			8.4
Max. Recommended current 20 to 36 core cable	Amps	1.35	1.4	1.65	2.5	3.12	4			6

All conductors in BCC are in accordance with above tables unless otherwise stated in the respective section of this publication or datasheets.

Pairs: all pairs consist of two twisted wires with a lay-length < 40 D.

Cable Cores: all cable cores consist of stranded wires or pairs

Foil screens for multi-core and multi-pair cables, screens or shields mostly consist of an aluminium foil laminated to polyester, broadly known as Alpet. These foils are helically (as a spiral) applied with sufficient overlap to guarantee 115 % or more coverage. . For the flexibility of a cable a helically applied foil is to be preferred. A longitudinally applied foil act more as a stiff tube = more difficult to bend.

A drain wire or continuity wire, contacting the aluminium side of the foil, is used for the termination of the screen and also to ground electrostatic discharges.

In case the screen of a coaxial cable where the screen may be a foil, this foil will be applied longitudinally and will also be bonded to the dielectric around the conductor.

Braided screens consist of 16 or 24 groups of strands. One set of 8 or 12 strands is woven clockwise and the other set of 8 or 12 strands anti-clockwise. Strands can consist of tinned or bare copper or aluminium wires.

Braided screens provide good screening efficiency and flexibility. Higher coverage provides better screening.

Sheaths: Grey PVC, Violet HFFR or black for PE, all in accordance with BS EN 50290-2.

Sheath	PVC	PVC alarm cables	HFFR	PE
Physical properties	BS EN 50290-2-22	UL444	BS EN 50290-2	BS EN 50290-2
Retardancy	Flame	Fire	Fire	Not applicable
Retardancy acc. to	IEC 60332-1	UL1666	IEC 60332-3C	Not applicable
Low Smoke	Not applicable	Not applicable	IEC 61034	Not applicable
Halogen-free (non acid, non toxic)	Not applicable	Not applicable	IEC 60754	Not applicable
RoHS compliant	YES	YES	YES	YES
Installation **	INDOOR	INDOOR	INDOOR	OUTDOOR

** on request cables with a sheath for in- & outdoor = universal use available.

RoHS Limits for Hazardous Substances

Substance	Max. Concentration
Lead (Pb)	0.03%
Mercury (Hg)	0.10%
Cadmium (Cd)	0.01%
Chromium 6	0.1%
PBB	0.1%
PBDE	0.1%

Unless so marked, all BCC do not contain restricted or hazardous substances and are compliant with the European Regulations or Directives for RoHS (Restriction of Hazardous Substances), REACH (Regulation Registration, Evaluation, Authorisation and Restriction of Chemical substances), WEEE (Waste Electrical and Electronic Equipment), ELV (End of Life Vehicles) and BFR (Brominated Flame Retardants).

RS Protocol

	RS-232	RS-422	RS-485
Differential	no	yes	yes
Max. number of drivers Max. number of receivers	1 1	1 10	1 32
Modes of operation	full duplex	half duplex	half duplex
Network topology	point-to-point	multidrop	multidrop
Max. distance acc. to standard	15 m	1200 m	1200 m
Max. speed at 12 m. Max. speed at 1200 m.	20 kbs 1 kbs	10 Mbs 100 kbs	35 Mbs 100 kbs
Cables used	6 to 25 conductors. No impedance specified	mainly 24AWG conductors. Two pairs or more. 100 ohm	mainly 24AWG conductors. One pair or more. 120 ohm
BCC main part numbers see	section 1.3	section 1.2	section 1.1

British Cables Company

General technical information

Nominal Attenuation in dB/100m for RG Coaxial Cables

MHz	1	5	10	50	100	300	550	750	1000	2000	3000	4500
RG-59	0.98	2.07	2.95	6.23	7.55	13.68	18.83	22.23	25.96	38.24	46.13	56.50
RG-6	0.79	1.71	2.33	4.57	6.40	11.96	15.76	18.05	21.36	31.44	39.76	50.46
RG-11	0.53	1.12	1.51	2.96	4.20	7.49	10.41	12.38	14.57	21.84	27.93	35.98

Comparison between European and United States Cable Design Basics

Europe		USA
Focus on SAFETY = SAVING LIVES	Focus	Focus on REDUCING INSURANCE CLAIMS
Low Voltage Directive	Directives	National Electrical Code
220 Volt, 50 Hz	Power supply system	120 Volt, 60 Hz
More radial thickness of insulation	Cable basics	More copper in conductors
IEC-EN and National Standards	Standards	UL standards
Cable specs. in mm, N, etc.	Units	Cable specs. in inches, lbs, etc.
70 °C (is equal to 80 °C in USA)	Temperature Ratings	80 °C (Is equal to 70 °C in Europe)
300 / 500 Vrms	Voltage Ratings	300 Vrms
450 / 750 Vrms		600 Vrms
IEC 60332-1	Retardancy levels	UL1581 – VW-1
IEC 60332-3-24 (former 3C)		UL1685
RoHS compliant	Environmental requirements	A number of states banned Hg and PBDE
CE Marking The CE marking certifies that a product has met EU consumer safety, health or environmental requirements. By affixing the CE marking to a product, the manufacturer – on his sole responsibility – declares that it meets EU safety, health and environmental requirements or, if stipulated in the directive(s), it had to be examined by a notified conformity assessment body.	Quality assurance	UL Approval / Listing UL does not approve products. Rather it evaluates products for compliance to specific requirements, and permits acceptable products to carry a UL certification mark, as long as they remain compliant with the standards. Products under its listing service are said to be "UL Listed," identified by the distinctive UL mark.

Conversions

Europe	USA
1 mm = 0.03937 inches	1 inch = 25,4 mm
1 m = 3.2808 feet (305 m = 1000 feet)	1 feet = 0.3048 m
1 m = 1.0936 feet	1 yard = 0.9144m
1 km = 0.6214 miles	1 mile = 1.6093 km
1 kg/km = 0.6719 lbs/1000 ft	1 lbs/1000 ft = 1.488 kg/km
1 ohm/km = 0.3048 ohm/1000 ft	1 ohm/1000 ft = 3.2808 ohm/km
1 N = 0.2248 lbs force	1 lbs force = 0.2248 N
-40 °C = -40 °F	-40 °F = -40 °C
-30 °C = -22 °F	-22 °F = -30 °C
0 °C = 32 °F	32 °F = 0 °C
60 °C = 90 °F	90 °F = -60 °C
75 °C = 167 °F	167 °F = -75 °C
90 °C = 194 °F	194 °F = -90 °C

British Cables Company

General technical information

Area Conversions

From	To	Multiply by
Circular mils	Square inches	0.0000007854
Square inches	Circular mils	1,273.240
mm^2	Square inches	0.00155
Square feet	Square meters	0.0929

To	Multiply by
Square mils	0.7854
Square mils	1,000,000.00
Square mils	1550.01

To	Multiply by
mm^2	0.0005067
mm^2	645.16
Circular mils	1,973.53

Common Wire Conversions

AWG	24	22		20	19/18	18	18/17
Cir. mils	404	640	987	1029	1481	1620	1974
mm^2	0.205	0.324	0.5	0.521	0.75	0.821	1.0

AWG	16	15/16	14	14/13	12		11
Cir. mils	2580	2961	4110	4935	6530	7896	8230
mm^2	1.371	1.5	2.082	2.5	3.309	4.0	4.170

Force, Mass and Weight Conversion

From	To	Multiply by
Pounds	Kilograms	0.4535
Pound per 1000 ft	Kilogram per kilometre	1.488
Pound-force	Newton	4.4482

From	To	Multiply by
Kilograms	Pounds	2.205
Kilogram per kilometre	Pound per 1000 ft	0.6719
Newton	Pound-force	0.2248

Glossary

British Cables Company

Glossary

A = Amp: Ampere = unit of electric current.

AC: Alternating current, e.g. 50 or 60 Hz AC power.

ACR: Attenuation Crosstalk Ratio. The difference between attenuation and crosstalk. Important characteristic in transmission to assure that the transmitted signal is stronger at the receiving end of the cable than are any interference signals imposed on that same pair by crosstalk from other pairs.

Alpet: aluminium foil covered with polyester.

Alu braid: braiding of woven aluminium wires

ANSI: American National Standards Institute

Attenuation: The gradual loss in intensity of signals in electrical circuits.

AWG: American wire gauge, is a standardized wire gauge system used since 1857 predominantly in the United States and Canada for the diameters of round, solid, nonferrous, electrically conducting wire.

BCC: a leading manufacturer of communication cables.

B.C. = BC: Bare Copper, mostly referring to a conductor or braid.

Bending radius: the radius that a cable can be bent without any detrimental effects on transmission performance.

Braid or Braiding: is a structure or pattern formed by intertwining of commonly 16 or 24 strands of wires.

B.S: British Standards are the standards produced by BSI Group which is incorporated under a Royal Charter (and which is formally designated as the National Standards Body (NSB) for the UK).

Cable core: two or more wires or pairs stranded. Good twisting is necessary otherwise the cable can hardly be bent and will lose performance after a few bends.

Category cables: high performance twisted pair cables for local area networking = structured wiring or cabling. Cables range from Cat 3 to Cat 7a. The higher the number, the greater the bandwidth and the better the performance.

Cat 3 Cable supports 10 Base-T Standard for bandwidths up to 10 Mbps over a maximum distance of 100 meters. They can support frequencies up to 10 Mhz.

Cat 5/5e Cable supports 100 Base-T Standard for bandwidths up to 100 Mbps over a maximum distance of 100 meters. They can support frequencies up to 100 Mhz. Cat 5e cables can also support 1000 Base-T.

Cat 6 Cable supports 1000 Base-T Standard for bandwidths up to 1000 Mbps over a maximum distance of 100 meters. Cat 6 standard can support frequencies up to 250 Mhz. They also support 10GE (10Gig Ethernet) bandwidth over limited distances.

Cat 6A Cable supports 10G Base-T standard for bandwidths up to 10 Gbps over a maximum distance of 100 meters. Cat 6A standard can support frequencies up to 500 Mhz.

Cat 7 Cable supports 10G Base-T standard for bandwidths up to 10 Gbps over a maximum distance of 100 meters. Cat 7 standard can support frequencies up to 600 Mhz. It offers better performance and improved cross talk suppression over the Cat 6A cables.

Cat 7A Cable supports 10G Base-T standard for bandwidths up to 10 Gbps over a maximum distance of 100 meters. In addition to this, they can also support 40 Gbps bandwidth for around 50 meters and 100 Gbps bandwidth for around 15 meters. They support frequencies up to 1000 Mhz.

Cat 8 Cable supports frequencies up to 1200 Mhz. Under development. No applications yet.

CATV: Community Antenna Television, also often used to mean Cable TV. It is a system of providing television to consumers through or optical fibre cables. High-speed Internet, telephony, and similar non-television services may also be provided.

CCTV: Closed-circuit television is the use of video cameras to transmit a signal to a specific place, on a limited set of monitors.

Circuit integrity refers to the operability of electrical circuits during a fire. It is a form of fire-resistance rating.

Coaxial Cable or coax: an electrical cable with a centre conductor surrounded by a tubular insulating layer = the dielectric, surrounded by a tubular conducting screen = the outer conductor, surrounded by an outer sheath. The term coaxial comes from the centre conductor and the outer screen sharing the same geometric axis.

Conductor: most familiar conductors are metallic. Copper or tinned copper is the most common material used for electrical wiring. Silver is also in use as a conductor and out performs copper, but is more expensive.

Continuity Wire: see Drain Wire.

Crosstalk (XT): any phenomenon by which a signal transmitted on one circuit of a transmission system creates an undesired effect in another circuit. Crosstalk is usually caused by undesired capacitive, inductive, or conductive coupling from one circuit (mostly a pair) to another (pair).

Current: electric current is a flow of electric charge through a medium. This flowing electric charge is typically carried by moving electrons in a conductor such as wire. The unit of current is Ampere.

DC Resistance: the resistance of an object is defined as the ratio of voltage across it to the direct current through it. The unit of resistance is Ohm.

Dielectric: the insulation between centre and outer conductor (screen) of coaxial cables. Mostly solid or foam (= cellular) polyethylene (PE).

Distortion: the alteration of the original shape (or other characteristic) of an object, image, sound, waveform or other form of information or representation. Distortion is usually unwanted, and often many methods are employed to minimize it in practice.

Drain wire: a conductor in contact with the foil (of a screen) in order to terminate the screen. Also referred to as a Continuity Wire. The preferred drain wire is tinned copper wire or wires.

British Cables Company

Glossary

Decibel (dB): is a logarithmic unit that indicates the ratio of a physical quantity (usually power or intensity) relative to a specified or implied reference level. A ratio in decibels is ten times the logarithm to base 10 of the ratio of two power quantities.

ELFEXT: the Equal-Level Far-End Crosstalk (ELFEXT) test measures Far-End Crosstalk (FEXT). FEXT is very similar to NEXT, but happens at the receiver side of the connection. Due to impedance on the line, crosstalk diminishes the signal as it gets further away from the transmitter. Because of this, FEXT is usually less detrimental to a signal than NEXT, but still important nonetheless.

EIA: the Electronic Industri8es Association ceased operations on 28 February 2011. The former sectors of EIA are the Electronic Components Association (ECA), JEDEC, Government Electronics and Information Technology Association (GEIA), now part of TechAmerica, Telecommunications Industry Association (TIA), and Consumer Electronics Association (CEA).

EN: European Norms maintained by CEN (European Committee for Standardization), CENELEC (European Committee for Electrotechnical Standardization) and ETSI (European Telecommunications Standards Institute).

Farad: the unit of capacitance.

FPE: Foam Polyethylene (PE) = closed cells with gas in PE in order to reduce the dielectric constant. Often used as dielectric in coaxial cables. The gas may be generated by chemical decomposition during extrusion of the insulation (dielectric) referred to as chemical foaming or blowing, or by injection into the polymer melt within the extruder (physical foaming or blowing).

FAS Cables: cables for fire detection and alarm systems

Far end crosstalk (FEXT): Interference between two pairs of a cable measured at the other end of the cable from the transmitter.

FR: can mean Flame Retardant or Fire Retardant or Fire Resistant.

Flame Retardant: are cables passing the vertical wire test of IEC 60332-1 or UL 1581 VW-1).

Fire Retardant: are cables passing the bundle test of IEC 60332-2-24 or UL 1685 Vertical Tray.

Fire Resistant: are cables with a circuit integrity of a specified time.

Frequency: is the number of occurrences of a repeating event per unit time. The unit of frequency is Hertz (Hz).

G.P. Bus: General Purpose Bus Application

Headroom: in case of testing category cables this is the average of the difference between worst case margin and the specified value.

Henry (H): unit of inductance.

Hertz (Hz): unit of frequency. 1 Hz means that an event repeats once per second.

HFFR = Halogen-Free, Flame or Fire Retardant

Impedance: the ratio of voltage applied to the current is called the input impedance. The input impedance of the infinite line is called the characteristic impedance.

Insertion Loss: also referred to as attenuation, refers to the loss of signal strength at the far end of a line compared to the signal that was introduced into the line. This loss is due to the electrical resistance of the copper cable, the loss of energy through the cable insulation and the impedance caused by the connectors. Insertion loss is usually expressed in decibels dB with a minus sign. Insertion loss increases with distance and frequency. For every 6dB of loss, the original signal will be half the original amplitude.

Inductance: is the property of an electrical circuit causing voltage to be generated proportional to the rate of change in current in a circuit. This property also is called self inductance to discriminate it from mutual inductance, describing the voltage induced in one electrical circuit by the rate of change of the electric current in another circuit.

Insulation: insulations are coatings applied to wires to isolate the conductors. Insulation materials are applied to provide good strippable and interchangeable colour. The physical properties are in accordance with BS EN 50290-2.

Individually screened pair: a pair with a helically applied (= as a spiral) Aluminium/Polyester (Alpet) foil. A drain wire is normally applied under the screen to provide continuity and ease of termination.

Jacket = sheath. This is the outer protective polymer surrounding the cable core.

Lay-length: The length measured along the axis of a wire or cable required for a single strand (in stranded wire) or conductor (in cable) to make one complete turn about the axis of the conductor or cable. In a twisted pair cable, the lay length is the distance it takes for the two wires to completely twist around each other. Lay length is also known as pitch length.

Local Area Network (LAN): any communication network for connecting computers within a building or small group of buildings.

m = metre: S. I. unit of measure of length.

MHz = MegaHertz: . 1 MHz = one million Hertz.

Near End Crosstalk (NEXT): Interference between two pairs in a cable measured at the same end of the cable as the transmitter.

Operating temperature (range): the temperature range at which the cable can operate.

Polyolefin: is a polymer produced by polymerisation of a simple olefin (also called an alkene) as a monomer, for example Polyethylene or Polypropylene.
PA = Polyamide
PE = Polyethylene.
PP = Polypropylene.
PVC = Polyvinyl Chloride.

Power Sum ELFEXT (PSELFEXT): is the sum of FEXT values from 3 wire pairs as they affect the other wire pair.

British cables Company

Glossary

Pair: two twisted insulated wires, normally colour coded.

Quad: a four conductor cable core or unit, symmetrical stranded or twisted together.

Rated Temperature: the maximum continuous temperature that the cable can withstand during its lifetime. It is generally limited by the thermal aging characteristics of the plastics used to insulate and/or sheath the wire.

Rated Voltage: the maximum voltage at which a cable can operate for extended periods without undue degradation or safety hazard.

Resistance: the electrical resistance of a conductor measures its opposition to the passage of an electric current; the inverse quantity is electrical conductance, measuring how easily electricity flows along a certain path. The unit of electrical resistance is the ohm (Ω), while electrical conductance is measured in Siemens (S).

Return Loss (RL): the Return or Reflection Loss of a line is the ratio of the power reflected back from the line to the power transmitted into the line. RL is expressed in decibels (dB).
The RL of coaxial cables is the loss of signal power resulting from the reflection caused at a discontinuity in the cable. This discontinuity can be fluctuations in dimensions and/or dielectric.
Return Loss is also one of many parameters regulated by the requirements established for Category 5e and onwards cables. It is a measure of the reflected energy from a transmitted signal. The larger the value, the less energy that is reflected. Poor Return Loss figures of a circuit are quite often caused by poor termination (connectors).

Screen: a cable screen acts as a Faraday cage to reduce electrical noise from affecting the signals, and to reduce electromagnetic radiation that may interfere with other parts in a cable or other cables. The screen minimizes capacitive coupled noise from other electrical sources. For more info regarding screens: see also the Technical Information section.

Sheath: the outer covering of a cable, standard in accordance with BS EN 50290-2 and Grey for PVC, Violet for HFFR and black for PE.

Shield = screen.

SMATV = Satellite Master Antenna Television, and refers to a system that uses multiple satellite and broadcast signals to create a single integrated cable signal for distribution to a cabling network

Solid BC: one solid conductor of bare copper.

Belden Equivalents

British Cables Company

Belden Equivalents

Belden P/N	BCC P/N	Conductor Size	No. of Conductors	No. of Pairs	Individually shielded pairs	Collective shield	Jacket	
1030A	C1223	16(7*24) AWG		1		Yes	PVC	300V PL Tray Cable
1043A	C1078	16 (7*24) AWG		16	Yes	Yes	PVC	600V Tray Cable
1044A	C1077	16 (7*24) AWG		20	Yes	Yes	PVC	600V Tray Cable
1064A	C1076	18 (7*26) AWG		4	Yes	Yes	PVC	600V Tray Cable
1067A	C1074	18 (7*26) AWG		16	Yes	Yes	PVC	600V Tray Cable
1467A	C1075	18 (7*26) AWG		8	Yes	Yes	PVC	300V PL Tray Cable
1505A	C1229	20 AWG	1			Yes	PVC	RG-59 Coaxial Cable (BC)
1523A	C1027	14 AWG	1			Yes	PVC	RG11 Coaxial Cable (CCS)
1583A	C1035	24 AWG		4				CAT 5E UTP Cable
1617A	C1241	14 AWG	1			Yes	PVC	RG-11 Quad Shield Coaxial Cable (CCS)
1633E	C1036	24 AWG		4		yes	PVC	CAT 5E FTP Cable
1694A	C1279	18 AWG	1			Yes	PVC	RG-6 Coaxial Cable (BC)
1885ENH	C1039	23 AWG		4	Yes	Yes	PVC	CAT 7 ISTP Cable
3079E	C1315	22 (7*30) AWG		1		Yes	PVC	Profibus DP
3105A	C1080	22 (7*30) AWG	2			Yes	PVC	RS-485 Computer Cable
3107A	C1295	22 (7*30) AWG	2			Yes	PVC	RS-485 Low Cap Computer Cable
3108A	C1296	22 (7*30) AWG	3			Yes	PVC	RS-485 Computer Cable
3109A	C1297	22 (7*30) AWG	4			Yes	PVC	RS-485 Computer Cable
4000FE	C1334	12 (19*25) AWG	2			Yes	HFFR	BMS-HFFR cables
4000UE	C1335	12 (19*25) AWG	2				HFFR	BMS-HFFR cables
4001UE	C1337	12 (19*25) AWG	3				HFFR	BMS-HFFR cables
4100FE	C1701	14 (19*27) AWG	2			Yes	HFFR	BMS-HFFR cables
4100UE	C1702	14 (19*27) AWG	3				HFFR	BMS-HFFR cables
4101UE	C1704	14 (19*27) AWG	3				HFFR	BMS-HFFR cables
4102UE	C1706	14 (19*27) AWG	4				HFFR	BMS-HFFR cables
4200FE	C1711	16 (19*29) AWG	2			Yes	HFFR	BMS-HFFR cables
4200UE	C1712	16 (19*29) AWG	2				HFFR	BMS-HFFR cables
4201FE	C1713	16 (19*29) AWG	3			Yes	HFFR	BMS-HFFR cables
4201UE	C1714	16 (19*29) AWG	3				HFFR	BMS-HFFR cables
4202FE	C1715	16 (19*29) AWG	4			Yes	HFFR	BMS-HFFR cables
4202UE	C1716	16 (19*29) AWG	4				HFFR	BMS-HFFR cables
4300FE	C1721	18 (7*26) AWG	2			Yes	HFFR	BMS-HFFR cables
4300UE	C1722	18 (7*26) AWG	2				HFFR	BMS-HFFR cables
4301FE	C1723	18 (7*26) AWG	3			Yes	HFFR	BMS-HFFR cables
4301UE	C1724	18 (7*26) AWG	3				HFFR	BMS-HFFR cables
4302FE	C1725	18 (7*26) AWG	4			Yes	HFFR	BMS-HFFR cables
4302UE	C1726	18 (7*26) AWG	4				HFFR	BMS-HFFR cables
4304FE	C1727	18 (7*26) AWG	6			Yes	HFFR	BMS-HFFR cables
4304UE	C1728	18 (7*26) AWG	6				HFFR	BMS-HFFR cables
4306FE	C1729	18 (7*26) AWG	8			Yes	HFFR	BMS-HFFR cables
4306UE	C1730	18 (7*26) AWG	8				HFFR	BMS-HFFR cables
4400FE	C1731	20 (7*28) AWG	2			Yes	HFFR	BMS-HFFR cables
4400UE	C1732	20 (7*28) AWG	2				HFFR	BMS-HFFR cables
4401FE	C1733	20 (7*28) AWG	3			Yes	HFFR	BMS-HFFR cables
4402FE	C1735	20 (7*28) AWG	4			Yes	HFFR	BMS-HFFR cables
4402UE	C1736	20 (7*28) AWG	4				HFFR	BMS-HFFR cables
4500FE	C1741	22 (7*30) AWG	2			Yes	HFFR	BMS-HFFR cables

British Cables Company

Belden Equivalents

Belden P/N	BCC P/N	Conductor Size	No. of Conductors	No. of Pairs	Individually shielded pairs	Collective shield	Jacket	
4500UE	C1742	22 (7*30) AWG	2				HFFR	BMS-HFFR cables
4501FE	C1743	22 (7*30) AWG	3			Yes	HFFR	BMS-HFFR cables
4501UE	C1744	22 (7*30) AWG	3				HFFR	BMS-HFFR cables
4502FE	C1745	22 (7*30) AWG	4			Yes	HFFR	BMS-HFFR cables
4502UE	C1746	22 (7*30) AWG	4				HFFR	BMS-HFFR cables
4504FE	C1747	22 (7*30) AWG	6			Yes	HFFR	BMS-HFFR cables
4504UE	C1748	22 (7*30) AWG	6				HFFR	BMS-HFFR cables
4506FE	C1749	22 (7*30) AWG	8			Yes	HFFR	BMS-HFFR cables
4506UE	C1750	22 (7*30) AWG	8				HFFR	BMS-HFFR cables
5100FE	C1001	14 (19*27) AWG	2			Yes	PVC	BMS-PVC cables
5100UE	C1002	14 (19*27) AWG	2				PVC	BMS-PVC cables
5101FE	C1003	14 (19*27) AWG	3			Yes	PVC	BMS-PVC cables
5101UE	C1004	14 (19*27) AWG	3				PVC	BMS-PVC cables
5102FE	C1005	14 (19*27) AWG	4			Yes	PVC	BMS-PVC cables
5102UE	C1006	14 (19*27) AWG	4				PVC	BMS-PVC cables
5200FE	C1007	16 (19*29) AWG	2			Yes	PVC	BMS-PVC cables
5200UE	C1008	16 (19*29) AWG	2				PVC	BMS-PVC cables
5201FE	C1009	16 (19*29) AWG	3			Yes	PVC	BMS-PVC cables
5201UE	C1010	16 (19*29) AWG	3				PVC	BMS-PVC cables
5202FE	C1011	16 (19*29) AWG	4			Yes	PVC	BMS-PVC cables
5202UE	C1012	16 (19*29) AWG	4				PVC	BMS-PVC cables
5300FE	C1013	18 (7*26) AWG	2			Yes	PVC	BMS-PVC cables
5300UE	C1014	18 (7*26) AWG	2				PVC	BMS-PVC cables
5301FE	C1015	18 (7*26) AWG	3			Yes	PVC	BMS-PVC cables
5301UE	C1016	18 (7*26) AWG	3				PVC	BMS-PVC cables
5302FE	C1017	18 (7*26) AWG	4			Yes	PVC	BMS-PVC cables
5302UE	C1018	18 (7*26) AWG	4				PVC	BMS-PVC cables
5305FE	C1239	18 (7*26) AWG	7				PVC	BMS-PVC cables
5400FE	C1019	20 (7*28) AWG	2			Yes	PVC	BMS-PVC cables
5400UE	C1020	20 (7*28) AWG	2				PVC	BMS-PVC cables
5401FE	C1021	20 (7*28) AWG	3			Yes	PVC	BMS-PVC cables
5401UE	C1022	20 (7*28) AWG	3				PVC	BMS-PVC cables
5402FE	C1023	20 (7*28) AWG	4			Yes	PVC	BMS-PVC cables
5402UE	C1024	20 (7*28) AWG	4				PVC	BMS-PVC cables
7731A	C1280	14 AWG	1			Yes	PVC	RG-11 Coaxial Cable (BC)
7860E	C1038	23 AWG		4		Yes		CAT6 FTP Cable
7965E	C1037	23 AWG		4				CAT 6 UTP Cable
8205	C1300	20 (7*28) AWG		1			PVC	High Conductivity Speaker and BMS-PVC-TC Cable
8205NH	C1415	20 (7*28) AWG		1			HFFR	High Conductivity Speaker and BMS-PVC-TC Cable
8259	C1046	20 (10*33) AWG	1			Yes	PVC	RG-58 Coaxial Cable
8442	C1301	22 (7*30) AWG		1			PVC	High Conductivity Speaker and BMS-PVC-TC Cable
8442NH	C1416	22 (7*30) AWG		1			HFFR	BMS-HFFR cables
8471	C1198	16 (19*29) AWG		1			PVC	High Conductivity Speaker and BMS-PVC-TC Cable
8471NH	C1307	16 (19*29) AWG		1			HFFR	BMS-HFFR cables
8473	C1222	14 (19*27) AWG	2				PVC	High Conductivity Speaker and BMS-PVC-TC Cable

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