

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

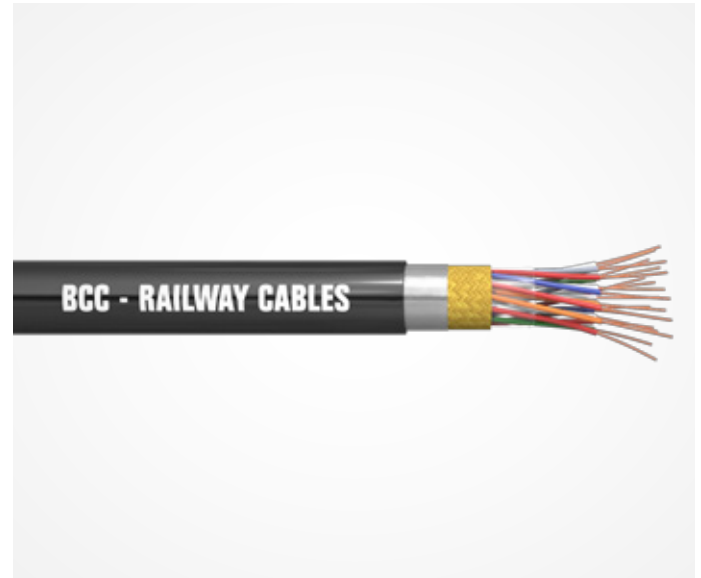
glassfibre tape

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. * Star 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 characteristics @ 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 Impedance	Ω	90	135±10	



British Cables Company Limited, Delaunays Road, Blackley, Manchester, M9 8FP, United Kingdom

Tel: +44 (0) 161 741 2345 | Fax: +44 (0) 161 795 8393 | Web: www.britishcablescompany.com | Email: info@britishcables.com

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