NITE-XK

Unmanaged Industrial Ethernet Switches M12 IP40
Fast Ethernet

Robust, vibration-proof communication in harsh environmental conditions

- ▶ Flexible use with 24 VAC/VDC
- ▶ Ultra-compact, ruggedized design
- ▶ Temperature range -40 to +70°C
- ▶ Polarity protection

- ▶ IP40 metal housing
- ▶ Inrush current limitation
- ▶ DIN EN 50155 rail compliant
- ▶ PROFINET suitable

With minimal housing size and low power consumption, the NITE-XK Industrial Ethernet switches are the perfect link in harsh environments. By shock and vibration-proof M12 connection technology for data and power supply, all applications in harsh industrial environments and in rail and commercial vehicles can be networked. The redundant 24 Volt AC/DC power supply is protected against polarity reversal and works reliably even with undersupply of 9 VDC. The tolerance to voltage dips, a dielectric strength of 2.25 kVDC and the limitation of the inrush enable a stable operation in all operating conditions. With two different frame forwarding/blocking variants (LLDP/PTCP), all applications are optimally supported.

General

Switch: IEEE802.3 Store and Forward; non-blocking wire speed
Auto-Negotiation, Auto-MDI-X, Auto-Polarity: Yes
Frame size: 2,048 Bytes
MAC table size: 2,000 addresses
Quality of Service: Yes – 4 priority queues
Energy Efficient Ethernet: No
Flow Control: No
PROFINET suitable: Yes

Port count (M12)	4	6	8
MTBF (SN 29500, Mio. h)	3,431	2,791	2,353
Frame Forwarding (Art.-No.)		xxxxx**0**	xxxxx**1**
LLDP, PTCP Delay 01:80:C2:00:00:0E	Forwarding		Blocking
RSTP BPDU 01:80:C2:00:00:00	Forwarding		Forwarding

Power supply

Nominal voltage: Vin 24 VAC / 24 VDC
Permitted voltage range: 8 to 28 VAC / 18 to 36 VDC
Connection type: Vin M12 A-cod. (+ -) | M4 drilling housing (FE)
Supply circuit: SELV DIN 60950 (circuit breaker 10 A)
Redundant power supply: Yes, two full-bridge circuits
Inrush current limiter: Yes
Input fuse: Yes, Interrupting rating 50 A @ 125 VAC/VDC
Polarity protection: Yes
Power failure bridging: 10 ms DIN 50155
PCB Conformal Coating: Yes
Protection category: III
Isolation: 2.25 kVDC; Vin ⇔ Ethernet Ports | Vin ⇔ housing

Port count (M12)	4	6	8
Power consumption (W)			
Idle | full load	0.4|0.82	0.4|1.0	0.4|1.2
Input current (mA)			
Idle | full load	16 | 34	16 | 42	16 | 50
Inrush current (A)	8	8	8

Mechanical properties

Housing material: Nickel-plated aluminium, stainless steel
Mounting: M6 hole for wall mounting, round head screw
IP Protection class (operation)**:** IP40

Port count (M12)	4	6	8
Width (mm)	49	49	49
Height (mm)	93	117	141
Depth (mm)	29.8	29.8	29.8
Weight (g)	160	210	255

Ethernet Interfaces

IEEE Standards: 802.3 10BaseT, 802.3u 100BaseT(X)
Isolation: 2.25 kVDC; Ethernet Port ⇔ housing | Port ⇔ Port
Connection type: M12 D-coded
Port count | Speed: 4,6,8 Ports | 10/100 Mbit/s
Cable length: 100 m (Twisted Pair, 0.14 mm² - 0.22 mm², Cat 5)

EMC and environmental specifications

Operating temperature: -40°C to +70°C
Storage temperature: -40°C to +85°C
Relative humidity (operation): 0%-95% (not condensing)
Relative humidity (storage): 0%-95% (not condensing)
Atmospheric pressure (operation): 2,000 m (795 hPa)
EMC immunity: DIN EN - 50121-3-2, 61000-6-2, 55024
EMC radiated emission: DIN EN - 50121-3-2, 61000-6-4, 55032
Mechanical stability: DIN EN 61373
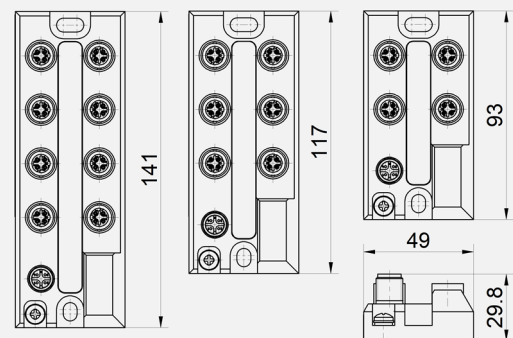**Fire protection:** DIN EN 45545

Approvals and certifications

CE, DIN EN 50155, DIN EN 60950-1

Status and diagnostic indicators

LED: Power | Link/Activity per Port

Drawing

141   117   93
49
29.8

Products

Article	Art.-No.	Specification
NITE-XK4-1100	311300	4xM12, FE, 24 V
NITE-XK6-1100	311500	6xM12, FE, 24 V
NITE-XK8-1100	311600	8xM12, FE, 24 V
NITE-XK4-1101	311301	4xM12, FE, 24 V, LLDP Blocking
NITE-XK6-1101	311501	6xM12, FE, 24 V, LLDP Blocking
NITE-XSK-1101	311601	8xM12, FE, 24 V, LLDP Blocking