

NITE-XS

Unmanaged Industrial Ethernet Switches M12 IP65/67/69K
Fast Ethernet M12 Push-Pull



Cabinet-free networking directly in the field: Reliable, ruggedized and stable

- ▶ Flexible use with 24 VAC/VDC
- ▶ Temperature range -40 to +70°C
- ▶ M12 Push-Pull IEC 61076-2-010
- ▶ Polarity protection
- ▶ IP65/67/69K metal housing
- ▶ Inrush current limitation
- ▶ DIN EN 50155 rail compliant
- ▶ E-Mark - (E1/R10) (R118)

The ultra-compact M12 IP65/67/69K unmanaged Industrial Ethernet switches connect all applications efficiently and reliably in harsh industrial environments as well as in rail and commercial vehicles. With its wide temperature range, high shock and vibration resistance and rugged metal housing, the NITE-XS can be installed directly in the field outside the switch cabinet. The Plug&Play switches provide a robust and reliable Ethernet communication directly in the application, saving cabinet space and reducing the cabling effort. The dielectric strength of 2.25 kVDC, excellent EMC performance characteristics and fire protection according to DIN EN 45545, make the NITE-XS Ethernet switches fully suitable for railways and comply with DIN EN 50155. 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: 1,522 Bytes
MAC table size: 2,000 addresses
Quality of Service: Yes – 4 priority queues
Energy Efficient Ethernet: No
Flow Control: Yes
PROFINET suitable: Yes

Port count (M12)	4	6	8
MTBF (SN 29500, Mio. h)	3,431	2,791	2,353
Frame Forwarding (Art.-No.)	xxxxx0		xxxxx1
LLDP, PTCP Delay 01:80:C2:00:00:0E	Forwarding		Blocking
RSTP BPDU 01:80:C2:00:00:00	Forwarding		Forwarding

Power supply / electronics

Nominal voltage: Vin 24 VAC / 24 VDC
Permitted voltage range: 8 to 28 VAC / 9 to 36 VDC
Connection type: Vin M12 A-cod. (+ -) | M4 thread drill hole (FE)
M12 "Outer Push-Pull acc. IEC 61076-2-010
M12 screw connection acc. IEC 61076-2-101
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 A I _{peak} (DC=40 μs, cold start)		

Mechanical properties

Housing material: Zinc/nickel plated aluminium, stainless steel
Mounting: M6 hole for wall mounting, round head screw
IP Protection class (operation): IP65/67/69K

Port count (M12)	4	6	8
Width (mm)	49	49	49
Height (mm)	93	117	141
Depth (mm)	31,1	31,1	31,1
Weight (g)	200	250	295

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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
M12 "Inner Push-Pull" acc. IEC 61076-2-010
M12 screw connection acc. IEC 61076-2-101
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: EN- 50121-3-2, 61000-6-2, 55024, 13766, 14982, 50498
EMC radiated emission: EN- 50121-3-2, 61000-6-4, 55032, 13766, 14982, 50498
Mechanical stability: DIN EN 61373, MIL-STD-810G
Fire protection: DIN EN 45545, E-Mark (R118)
Salt mist: DIN EN ISO 9227 (480h)

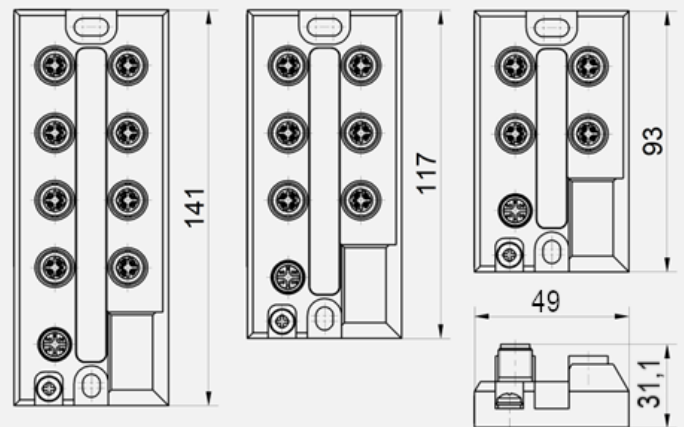
Approvals and certifications

CE, DIN EN 50155, DIN EN 60950-1, E-Mark - (E1/R10/R118), ITxPT, FCC Part 15

Status and diagnostic indicators

LED: Power | Link/Activity per Port

Drawing



Products

Article	Art.-No.	Specification
NITE-XS4-1100	411300	4xM12, FE, 24 V
NITE-XS6-1100	411500	6xM12, FE, 24 V
NITE-XS8-1100	411600	8xM12, FE, 24 V
NITE-XS4-1101	411301	4xM12, FE, 24 V, LLDP Blocking
NITE-XS6-1101	411501	6xM12, FE, 24 V, LLDP Blocking
NITE-XS8-1101	411601	8xM12, FE, 24 V, LLDP Blocking

