NITE-XS

Unmanaged Industrial Ethernet Switches M12 IP65/67
Fast & Gigabit Ethernet

Cabinet-free networking directly in the field: Ruggedized with Gigabit-Uplink-Port

▶ Flexible use with 24 VDC

▶ Ultra-compact, ruggedized design

▶ Temperature range -40 to +70°C

▶ Polarity protection

▶ IP65/67 metal housing

▶ Low power consumption

▶ DIN EN 50155 rail compliant

▶ PROFINET suitable

The ultra-compact M12 IP65/67 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. Variants with X-coded M12 Gigabit ports provide sufficient bandwidth for demanding applications. The Plug&Play switches provide a robust and reliable Ethernet communication directly in the application, saving cabinet space and reducing the cabling effort. An 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.

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

Energy Efficient Ethernet: No

Flow Control: Yes

PROFINET suitable: Yes

Port count (X-cod. + D-cod.)	**4+1**
MTBF (SN 29500, Mio. h)	2.312
Frame Forwarding (Art.-No.)	xxxxx**0**
LLDP, PTCP Delay 01:80:C2:00:00:0E	Forwarding
RSTP BPDU 01:80:C2:00:00:00	Forwarding

Power supply / electronics

Nominal voltage: Vin 24 VDC

Permitted voltage range: 9 to 36 VDC

Connection type: Vin M12 A-cod. (+ -) | M4 thread drill hole (FE)

Supply circuit: SELV DIN 60950 (circuit breaker 10 A)

Redundant power supply: No

Inrush current limiter: No

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: 1.5 kVDC Vin⇔Ethernet Ports | 2 kVDC Vin⇔housing

Port count (X-cod. + D-cod.)	**4+1**
Power consumption (W)	
Idle | full load	0,36 **|** 2,1
Input current (mA)	
Idle | full load	15 **|** 45

Mechanical properties

Housing material: Nickel-plated aluminium, stainless steel

Mounting: M6 hole for wall mounting, round head screw

IP Protection class (operation)**:** IP65/67

Port count (M12)	**4+1**
Width (mm)	55
Height (mm)	117
Depth (mm)	26,8
Weight (g)	250

Ethernet Interfaces

IEEE Standards: 802.3 10BaseT, 100BaseT(x), 1000BaseT

Isolation: 1 kVDC Eth. Port ⇔ housing | 2 kVDC Port ⇔ Port

Connection type: M12 D-coded, M12 X-coded

Port count | Speed: 4 | 10/100 Mbit/s + 1 | 10/100/1000 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

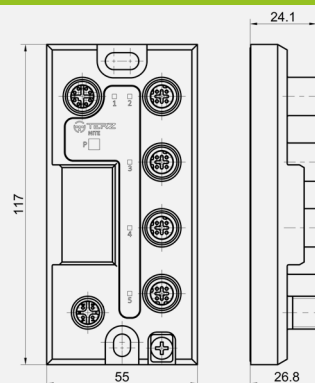**Fire protection:** DIN EN 45545

Approvals and certifications

CE, DIN EN 50155, DIN EN 60950-1, ITxPT

Status and diagnostic indicators

LED: Power | Link/Activity/Speed per Port

Drawing

Products

Article	Art.-No.	Specification
NITE-XS41-31100	4314100	4xM12 FE+1xM12 GE