![TERZ Industrial Electronics logo]

NITE-XS

Unmanaged Industrial Ethernet Switches M12 IP65/67
Gigabit Ethernet

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

▸ Flexible use with 24 VDC

▸ Ultra-compact, ruggedized design

▸ Temperature range -40 to +70°C

▸ Polarity protection

▸ IP65/67 metal housing

▸ Inrush current limitation

▸ DIN EN 50155 rail compliant

▸ 9 kB Jumbo Frame Support

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: 9,216 Bytes
MAC table size: 2,000 addresses
Quality of Service: Yes – 8 priority queues
Energy Efficient Ethernet: No
Flow Control: No
PROFINET suitable: Yes

Port count (M12)	**5**
MTBF (SN 29500, Mio. h)	-

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 / 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: 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: 1 kVDC Vin⇔Ethernet Ports | 2,25 kVDC Vin⇔housing

Port count (X-cod.)	**5**
Power consumption (W)	
Idle | full load	1,5 **|** 2,9
Input current (mA)	
Idle | full load	60 **|** 120
Inrush current (A)	8

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 (X-cod.)	**5**
Width (mm)	65
Height (mm)	135
Depth (mm)	29,8
Weight (g)	320

Ethernet Interfaces

IEEE Standards: 802.3 10BaseT, 100BaseT(x), 1000BaseT
Isolation: 2.25 kVDC Eth. Port ⇔ housing | 1kVDC Port ⇔ Port
Connection type: M12 X-coded
Port count | Speed: 5 | 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
EMC radiated emission: DIN EN - 50121-3-2, 61000-6-4
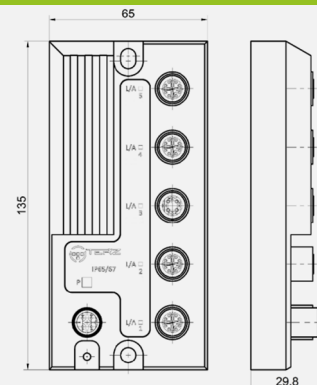**Mechanical stability:** DIN EN 61373
Fire protection: DIN EN 45545

Approvals and certifications

CE, DIN EN 50155, DIN EN 60950-1

Status and diagnostic indicators

LED: Power | Link/Activity/Speed per Port

Drawing

Products

Article	Art.-No.	Specification
NITE-XS5-2100	421400	5xM12, GE, 24 V
NITE-XS5-2101	421401	5xM12, GE, 24 V, LLDP Block