

# 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

<b>Port count (M12)</b>	<b>5</b>
<b>MTBF (SN 29500, Mio. h)</b>	2.037
<b>Frame Forwarding (Art.-No.)</b>	xxxxx0
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:** 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

<b>Port count (X-cod.)</b>	<b>5</b>
<b>Power consumption (W)</b>	
Idle   full load	1,5   2,9
<b>Input current (mA)</b>	
Idle   full load	60   120
<b>Inrush current (A)</b>	
I <sub>peak</sub> (DC=40 μs, cold start)	16

### Mechanical properties

**Housing material:** Nickel-plated aluminium, stainless steel  
**Mounting:** M6 hole for wall mounting, round head screw  
**IP Protection class (operation):** IP65/67

<b>Port count (X-cod.)</b>	<b>5</b>
<b>Width (mm)</b>	65
<b>Height (mm)</b>	135
<b>Depth (mm)</b>	29,8
<b>Weight (g)</b>	320

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### 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 mm<sup>2</sup> - 0.22 mm<sup>2</sup>, 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

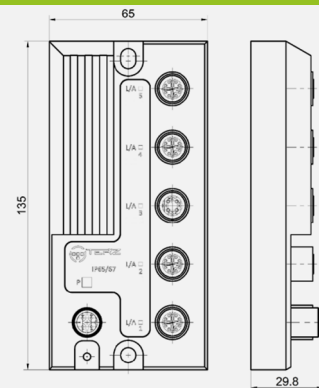
### Approvals and certifications

CE, DIN EN 50155, ITxPT, 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

