

# NITE-TX1XS

Unmanaged Industrial Ethernet Switches M12 IP65/67  
Fast Ethernet, Single Pair Ethernet & Gigabit Ethernet



## Cross-Technology: Cabinet-free networking with Standard- and Single Pair Ethernet

- ▶ Flexible use with 24 VDC
- ▶ Ultra-compact, ruggedized design
- ▶ Temperature range -40 to +70°C
- ▶ Polarity protection
- ▶ IEEE 802.3bw (100Base-T1)
- ▶ 8x D-coded T1|TX Auto-Detection
- ▶ DIN EN 50155 rail compliant
- ▶ Gigabit Uplink Ports

# Unmanaged Industrial Ethernet Switches M12 IP65/67

## Fast Ethernet, Single Pair Ethernet & Gigabit Ethernet



The NITE-TX1XS82 is a Cross-Technology Switch that combines two Ethernet technologies on eight D-coded M12 ports: Standard Ethernet and Single Pair Ethernet. These T1|TX Data-Hybrid ports allow for the flexible networking of all Ethernet participants. Through the T1|TX Auto-Detection mode, Standard Ethernet and Single Pair Ethernet devices can be connected, regardless of whether they are MASTER or SLAVE devices. The switch features two X-coded M12 Gigabit ports through which data is forwarded with high bandwidth. One of the two uplink ports provides a bandwidth of 2.5 Gbit/s according to the IEEE 2.5GBase-T standard. The Plug&Play switches enable reliable Ethernet communication directly in the application, thus saving space in the control cabinet and reducing wiring effort.

### 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

<b>Port count (D-cod. + X-cod.)</b>	<b>8+2</b>
<b>MTBF (SN 29500, Mio. h)</b>	2.223

<b>Frame Forwarding (Art.-No.)</b>	xxxxx0
LLDP, PTPC 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. (Pin1+|Pin2-) | M4 (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:** 5 ms DIN 50155  
**PCB Conformal Coating:** Yes  
**Protection category:** III  
**Isolation:** 1.5 kVDC Vin ↔ Ethernet Ports | 2 kVDC Vin ↔ housing

<b>Port count (D-cod. + X-cod.)</b>	<b>8+2</b>
<b>Power consumption (W)</b>	
Idle   full load	1,8   2,9
<b>Input current (mA)</b>	
Idle   full load	75   120

### 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 (M12)</b>	<b>8+2</b>
<b>Width (mm)</b>	65
<b>Height (mm)</b>	180
<b>Depth (mm)</b>	29,8
<b>Weight (g)</b>	470

### Ethernet interface 1 (T1|TX Auto-Detection)

**IEEE Standards:** 802.3 10BaseT, 100BaseT(x)  
**Isolation:** 1 kVDC Eth. Port ↔ housing | 2 kVDC Port ↔ Port  
**Connection type:** M12 D-coded  
**Port count | Speed:** 8 | 10/100 Mbit/s TX & 100 Mbit/s T1  
**Cable length:** TX 100 m (Twisted Pair, 0,14 mm<sup>2</sup> - 0,22 mm<sup>2</sup>, Cat 5)  
 T1 15+ m (Twisted Pair)

### Ethernet Interfaces 2

**IEEE Standards:** 802.3 100BaseT(X), 1000BaseT, 2.5BaseT  
**Isolation:** 1 kVDC Eth. Port ↔ housing | 2 kVDC Port ↔ Port  
**Connection type:** M12 X-coded  
**Ports | Speed:** 1 | 100/1000 Mbit/s + 1 | 100/1000/2500 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, 55024  
**EMC radiated emission:** DIN EN - 50121-3-2, 61000-6-4, 55032  
**Mechanical stability:** DIN EN 61373  
**Fire protection:** DIN EN 45545

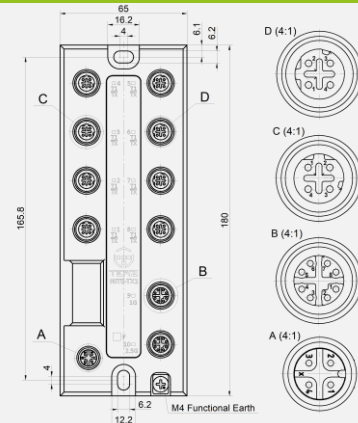
### Approvals and certifications

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-TX1XS82-3100	4317200	8xM12 FE+2xM12 GE

