

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.)	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

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)	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

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

Note: We reserve the right to make technical changes to this document without prior notice. TERZ assumes no responsibility or liability for any errors or inaccuracies in this document. All rights to this document and its contents are reserved. Duplication, use of the content or announcement to third parties in any form is not permitted without written permission from TERZ. Copyright © 2021 TERZ Industrial Electronics GmbH. All rights reserved.

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

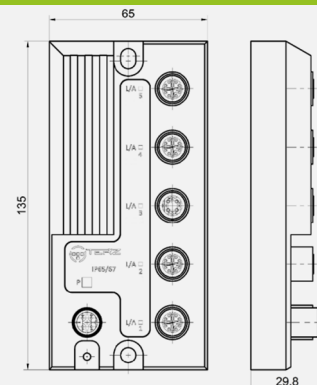
Approvals and certifications

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

