

Industrial Ethernet Switch - FL SWITCH SFN 8TX-PN - 2891018

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Ethernet switch, eight TP RJ45 ports, automatic detection of data transmission speed of 10 or 100 Mbps (RJ45), autocrossing function. The multicast filter will block PROFINET PTCP-Delay traffic.

Product Description

FL SWITCH SFN... Factoryline switches with standard functions can be used for quick and cost-effective Ethernet network expansion to the field level. The narrow housing design makes them suitable for universal remote use in control cabinets and junction boxes. FL SWITCH SFN...-PN switches have a unique multicast filter that blocks PROFINET PTCP-Delay traffic.

Switching properties

- Multi-address function

The switch independently learns the addresses of termination devices connected to a port by evaluating the source addresses in the data. Only packets with unknown addresses, with a source address of this port or with a multicast/broadcast address in the destination address field are forwarded via the corresponding port. Up to 2048 MAC addresses can be stored.

- Quality of service

In cases of heavy traffic, packets with an 802.1Q priority level between 4 and 7 or with an IPv4 Type of Service Precedence value of one or more are considered high priority and are processed before packets with an 802.1Q priority level between 0 and 3 or an IPv4 Type of Service Precedence value of 0.

- Multicast filtering

The multicast filter will block PROFINET PTCP-Delay traffic by filtering frames with the destination MAC address in the range 01-80-C2-00-00-02 through 01-80-C2-00-00-0F. Note that the filter blocks LLDP traffic because PTCP-Delay uses the same MAC address (01-80-C2-00-00-0E).

- Security

Low cost, low complexity security (optional) elements are available to restrict access or tampering.

- Wiring

Power connection is via a removable COMBICON connector. US is +24 V DC and GND is 0 V DC. FE is via a separate screw.

Your advantages

- ✓ Auto negotiation and autocrossing detection simplifies installation and setup
- ✓ Local diagnostic indicators with LEDs
- ✓ Multicast filter to block PROFINET PTCP-Delay traffic
- ✓ The switch also offers cable locking and port blocking
- ✓ QoS-prioritized (Quality of Service) messages
- ✓ RJ45 ports support a transmission speed of 10/100 Mbps

Key Commercial Data

Packing unit	1 pc
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GTIN	 4 046356 997300
GTIN	4046356997300
Weight per Piece (excluding packing)	650.000 g
Custom tariff number	85176200
Country of origin	Taiwan

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Dimensions

Width	50 mm
Height	130 mm
Depth	100 mm

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	0 °C ... 60 °C
Ambient temperature (storage/transport)	-20 °C ... 70 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)
Air pressure (operation)	86 kPa ... 108 kPa (up to 1500 m above sea level)
Air pressure (storage/transport)	66 kPa ... 108 kPa (up to 3500 m above sea level)

Interfaces

Interface	Ethernet (RJ45)
No. of ports	8 (RJ45 ports)
Note on the connection method	Auto negotiation and autocrossing
Transmission physics	Ethernet in RJ45 twisted pair
Transmission speed	10/100 Mbps

Function

Basic functions	Unmanaged switch / auto negotiation, complies with IEEE 802.3, store and forward switching mode
Additional functions	Autonegotiation
PROFINET conformance class	Conformance-Class A
Status and diagnostic indicators	LEDs: U _s , link and activity per port

Network expansion parameters

Cascading depth	Network, linear, and star structure: any
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Technical data

Network expansion parameters

Maximum conductor length (twisted pair)	100 m
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Supply voltage

Supply voltage	24 V DC
Residual ripple	3.6 V _{PP} (within the permitted voltage range)
Supply voltage range	9 V DC ... 32 V DC
Typical current consumption	140 mA (at U _S = 24 V DC)

General

Mounting type	DIN rail
Type AX	Block design
Net weight	365 g
Housing material	Aluminum
MTTF	128 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)

Standards and Regulations

Noise emission	EN 61000-6-4
Noise immunity	EN 61000-6-2:2005

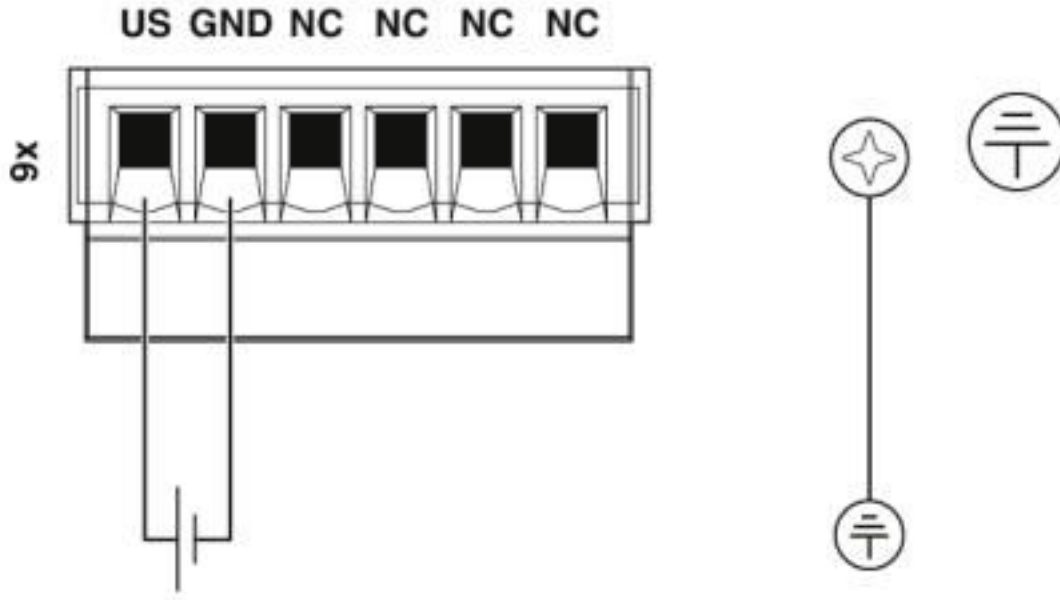
Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 10;
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

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Connection diagram



Classifications

eCl@ss

eCl@ss 10.0.1	19170402
eCl@ss 5.0	19030100
eCl@ss 5.1	19030100
eCl@ss 6.0	19170100
eCl@ss 7.0	19170106
eCl@ss 8.0	19170106
eCl@ss 9.0	19170106

ETIM

ETIM 4.0	EC000734
ETIM 5.0	EC000734
ETIM 6.0	EC000734
ETIM 7.0	EC000734

UNSPSC

UNSPSC 13.2	43222612
UNSPSC 18.0	43222612
UNSPSC 19.0	43222612
UNSPSC 20.0	43222612

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Classifications

UNSPSC

UNSPSC 21.0	43222612
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Approvals

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UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324
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cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324
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EAC			RU*-DE.*.B.00741/19
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cULus Listed			
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Accessories

Accessories

Data cable preassembled

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Accessories

Patch cable - NBC-R4AC-R4AC-IE8A/.../... - 1411854



Patch cable, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6_A, cable outlet: straight

Patch cable - NBC-R4AC/10G-R4AC/10G-94F/2,0 - 1408360



Patch cable, CAT6_A, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 2.0 m

Patch cable - NBC-R4AC/10G-R4AC/10G-94F/3,0 - 1408365



Patch cable, CAT6_A, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 3.0 m

End block

End clamp - E/NS 35 N - 0800886



End clamp, width: 9.5 mm, color: gray

Mounting rail adapter

DIN rail adapter - FL DIN RA - 2891053



The FL DIN RA is installed in a standard, 19-inch rack (EIA-310-D, IEC 60297-3-100) to allow DIN rail mounted equipment to be rack mounted.

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Accessories

Patch cable

Patch cable - FL CAT5 PATCH 0,5 - 2832263



Patch cable, CAT5, assembled, 0.5 m

Patch cable - FL CAT5 PATCH 1,0 - 2832276



Patch cable, CAT5, assembled, 1 m

Patch cable - FL CAT5 PATCH 2,0 - 2832289



Patch cable, CAT5, assembled, 2 m

PCB plug

Printed-circuit board connector - MSTB 2,5/ 6-ST - 1754520



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 6, pitch: 5 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin

Protective cap

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Accessories

Dust protection - FL RJ45 PROTECT CAP - 2832991



Dust protection caps for RJ45 socket

Safety locking

Port Guard Security Element - FL SEC PAC 4TX - 2832865



Layer1 security elements for four RJ45 network connections for use with patch boxes and panels

Surge protection for information technology

Surge protection device - DT-LAN-CAT.6+ - 2881007



Surge protection in accordance with Class E_A (CAT6_A), for Gigabit Ethernet (up to 10 Gbps), token ring, FDDI/CDDI, ISDN, and DS1. Suitable for Power over Ethernet (PoE+) "Mode A" and "Mode B". RJ45 attachment plug with separate grounding cable and ground connection snap-on foot for NS 35 DIN rails.