

## 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

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

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

### Technical data

#### 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 <sub>s</sub> , link and activity per port

#### Network expansion parameters

Cascading depth	Network, linear, and star structure: any
Maximum conductor length (twisted pair)	100 m

#### Supply voltage

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

## Technical data

### Supply voltage

Supply voltage	24 V DC
Residual ripple	3.6 V <sub>PP</sub> (within the permitted voltage range)
Supply voltage range	9 V DC ... 32 V DC
Typical current consumption	140 mA (at U <sub>S</sub> = 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

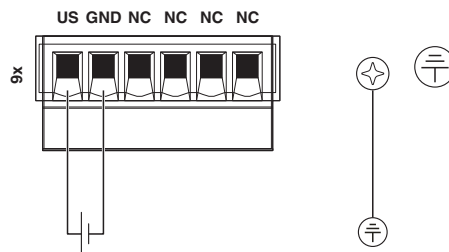
Noise emission	EN 61000-6-4
Noise immunity	EN 61000-6-2:2005

### 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

Connection diagram



## Classifications

### eCl@ss

eCl@ss 10.0.1	19170402
eCl@ss 11.0	19170402
eCl@ss 5.0	19030100

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

## Classifications

### eCl@ss

eCl@ss 5.1	19030100
eCl@ss 6.0	19170100
eCl@ss 7.0	19170106
eCl@ss 9.0	19170106

### ETIM

ETIM 4.0	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
UNSPSC 21.0	43222612

## Approvals

### Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

### Approval details

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
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cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
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## Approvals

EAC		RU*-DE.*.B.00741/19
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cULus Listed		
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## Accessories

### Accessories

#### Data cable preassembled

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



Patch cable, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6<sub>A</sub>, cable outlet: straight, Ethernet

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



Patch cable, CAT6<sub>A</sub>, 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<sub>A</sub>, 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

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

### Accessories

End clamp - E/NS 35 N - 0800886



End clamp, width: 9.5 mm, color: gray

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### 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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### Patch cable

Patch cable - FL CAT5 PATCH 0,5 - 2832263



Patch cable, CAT5, assembled, 0.5 m

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Patch cable - FL CAT5 PATCH 1,0 - 2832276



Patch cable, CAT5, assembled, 1 m

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Patch cable - FL CAT5 PATCH 2,0 - 2832289



Patch cable, CAT5, assembled, 2 m

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

## Accessories

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### PCB plug

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



PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 6, Number of rows: 1, Number of positions per row: 6, number of connections: 6, product range: MSTB 2,5/..-ST, pitch: 5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, Locking clip: - Locking clip, plug-in system: CLASSIC COMBICON, Locking: without, mounting: without, type of packaging: packed in cardboard

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### Protective cap

Dust protection - FL RJ45 PROTECT CAP - 2832991



Dust protection caps for RJ45 socket

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### 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

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### Surge protection for information technology

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



Surge protection in accordance with Class E<sub>A</sub> (CAT6<sub>A</sub>), for Gigabit Ethernet (up to 10 Gbps), token ring, FDDI/CDDI, ISDN, and DS1. Suitable for Power over Ethernet (PoE++ / 4PPoE) "Mode A" and "Mode B". RJ45 attachment plug with separate grounding cable and ground connection snap-on foot for NS 35 DIN rails.

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