

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



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

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

## Commercial data

Item number	2891018
Packing unit	1 pc
Sales key	DN19
Product key	DNN113
Catalog page	Page 290 (C-6-2019)

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GTIN	4046356997300
Weight per piece (including packing)	615 g
Weight per piece (excluding packing)	365 g
Customs tariff number	85176200
Country of origin	TW

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## Technical data

### Dimensions

Width	50 mm
Height	130 mm
Depth	100 mm

### Material specifications

Housing material	Aluminum
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### Mounting

Mounting type	DIN rail mounting
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### Interfaces

#### Ethernet (RJ45)

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

### Product properties

Type	Block design
Product type	Switch
Product family	Unmanaged Switch SFN
MTTF	128 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)

#### Switch functions

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

#### Security functions

Basic functions	Unmanaged switch / auto negotiation, complies with IEEE 802.3, store and forward switching mode
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### Electrical properties

Maximum power dissipation for nominal condition	3.36 W
Transmission medium	Copper

#### Supply

Supply voltage (DC)	24 V DC
Supply voltage range	9 V DC ... 32 V DC

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

## Environmental and real-life conditions

### 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)

## EMC data

Conformance with EMC directives	IEC 61000-6-2 IEC 61000-4-2 (ESD) Criterion B
Noise immunity	EN 61000-6-2:2005
Noise emission	EN 61000-6-4

## System properties

### Functionality

Basic functions	Unmanaged switch / auto negotiation, complies with IEEE 802.3, store and forward switching mode
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## Signaling

Status display	LEDs: U <sub>S</sub> , link and activity per port
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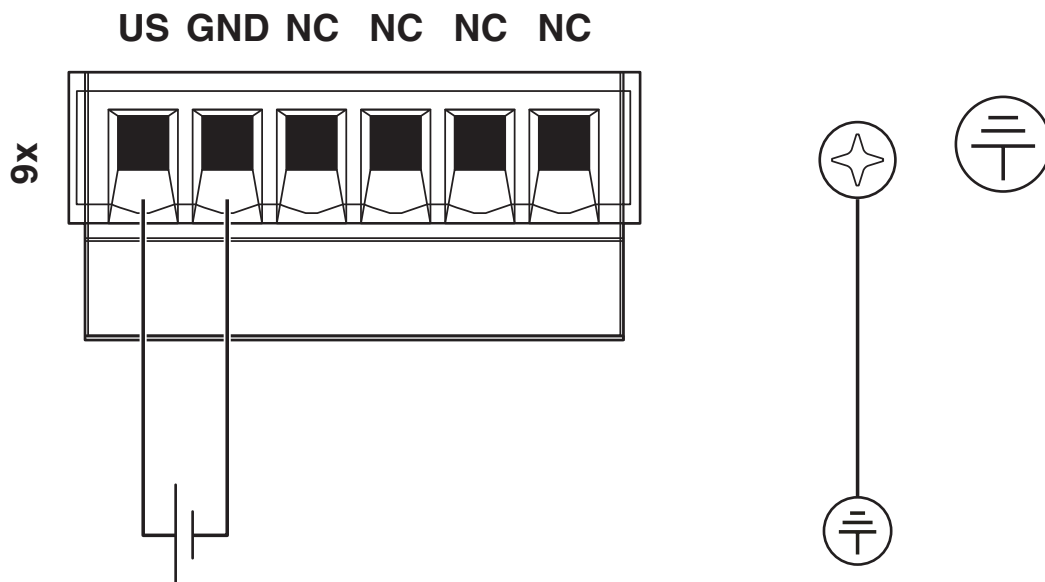


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## Drawings

Connection diagram



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## Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2891018>



**EAC**

Approval ID: RU\*-DE.\*.B.00741/19



**UL Listed**

Approval ID: FILE E 140324



**cUL Listed**

Approval ID: FILE E 140324

**cULus Listed**

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## Classifications

### ECLASS

ECLASS-11.0	19170402
ECLASS-12.0	19170402
ECLASS-13.0	19170402

### ETIM

ETIM 8.0	EC000734
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### UNSPSC

UNSPSC 21.0	43222600
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Environmental product compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 10;
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"



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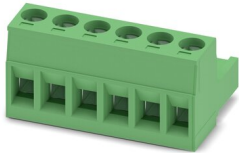
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## Accessories

### MSTB 2,5/ 6-ST - PCB connector

1754520

<https://www.phoenixcontact.com/us/products/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, contact connection type: Socket, number of potentials: 6, number of rows: 1, number of positions: 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: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

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

2881007

<https://www.phoenixcontact.com/us/products/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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## FL CAT5 PATCH 0,5 - Patch cable

2832263

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Patch cable, CAT5, assembled, 0.5 m

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## FL CAT5 PATCH 1,0 - Patch cable

2832276

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Patch cable, CAT5, assembled, 1 m

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## FL CAT5 PATCH 2,0 - Patch cable

2832289

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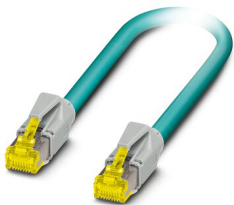
Patch cable, CAT5, assembled, 2 m

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

1411854

<https://www.phoenixcontact.com/us/products/1411854>



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

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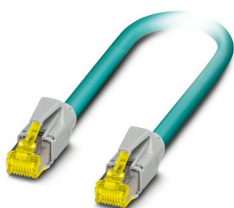
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## NBC-R4AC/10G-R4AC/10G-94F/2,0 - Patch cable

1408360

<https://www.phoenixcontact.com/us/products/1408360>



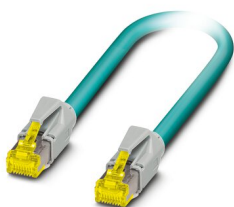
Patch cable, CAT6<sub>A</sub>, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 2.0 m

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

1408365

<https://www.phoenixcontact.com/us/products/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

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

2832865

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Layer1 security elements for 4 RJ45 network connections for use with patch boxes and panels



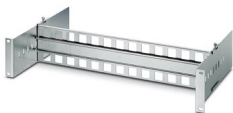
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## FL DIN RA - DIN rail adapter

2891053

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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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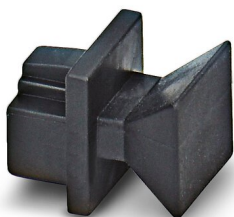
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## FL RJ45 PROTECT CAP - Dust protection

2832991

<https://www.phoenixcontact.com/us/products/2832991>

Dust protection caps for RJ45 socket



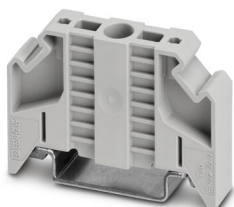
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## E/NS 35 N - End clamp

0800886

<https://www.phoenixcontact.com/us/products/0800886>

End clamp, width: 9.5 mm, color: gray



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