

# FL SWITCH SFNB 4TX/FX SM20 - Industrial Ethernet Switch



2891029

<https://www.phoenixcontact.com/gb/products/2891029>

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Ethernet switch, 4 TP RJ45 ports, 1 FO port, 100 Mbps full duplex in SC-D format, single mode fiberglass, automatic detection of data transmission speed of 10 or 100 Mbps (RJ45), autocrossing function

## Your advantages

- RJ45 ports support a transmission speed of 10/100 Mbps
- Fiber-optic ports support 100 Mbps
- Local diagnostic indicators with LEDs
- Auto negotiation and autocrossing detection simplifies installation and setup

## Commercial data

Item number	2891029
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DNN113
Product key	DNN113
Catalog page	Page 289 (C-6-2019)
GTIN	4046356588102
Weight per piece (including packing)	280.8 g
Weight per piece (excluding packing)	280.8 g
Customs tariff number	85176200
Country of origin	TW

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## Technical data

### Dimensions

Width	28 mm
Height	110 mm
Depth	70 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
Transmission length	100 m (per segment)
Signal LEDs	Data receive, link status
No. of channels	4 (RJ45 ports)

#### Fiber optic interface

Connection method	SC
Transmission speed	100 Mbps (full duplex)
Transmission physics	Single-mode fiberglass
Transmission length	25 km (fiberglass with F-G 9/125 0.5 dB/km)
Wavelength	1310 nm
No. of channels	1 (SC single mode)

### Product properties

Type	Block design
Product type	Switch
Product family	Unmanaged Switch SFNB
MTTF	130.5 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
Status and diagnostic indicators	LEDs: U <sub>S</sub> , link and activity per port
Additional functions	Autonegotiation

#### Security functions

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

Local diagnostics	US Supply voltage Green LED
	LNK/ACT Link status/data transmission Green LED
	100 Data transmission speed Yellow LED
Maximum power dissipation for nominal condition	4.2 W
Transmission medium	Copper

## Supply

Supply voltage (DC)	24 V DC
Supply voltage range	12 V DC ... 48 V DC
Power supply connection	Via COMBICON, max. conductor cross section 2.5 mm <sup>2</sup>
Residual ripple	3.6 V <sub>PP</sub> (within the permitted voltage range)
Typical current consumption	175 mA (at U <sub>S</sub> = 24 V DC)

## Connection data

Connection method	Screw connection
Conductor cross section, rigid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section, flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section AWG	30 ... 12
Stripping length	7 mm

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-10 °C ... 60 °C
Ambient temperature (storage/transport)	-20 °C ... 85 °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)

## Approvals

### Conformity/Approvals

UL, USA / Canada	Class I, Div. 2, Groups A, B, C, D
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## EMC data

Noise immunity	EN 61000-6-2
Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Noise emission	EN 61000-6-4

## System properties

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## Functionality

Basic functions

Unmanaged switch / auto negotiation, complies with IEEE 802.3, store and forward switching mode

## Signaling

Status display

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

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/2891029>



**IECEE CB Scheme**

Approval ID: DK-88783-M1-UL



**EAC**

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



**UL Listed**

Approval ID: FILE E 140324



**cUL Listed**

Approval ID: FILE E 140324



**cUL Listed**

Approval ID: FILE E 238705



**UL Listed**

Approval ID: FILE E 238705



**cUL Listed**

Approval ID: FILE E 199827



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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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## Accessories

### MSTB 2,5/ 3-ST - PCB connector

1754465

<https://www.phoenixcontact.com/gb/products/1754465>



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: 3, number of rows: 1, number of positions: 3, number of connections: 3, 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/gb/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/gb/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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## NBC-R4AC/10G-R4AC/10G-94F/2,0 - Patch cable

1408360

<https://www.phoenixcontact.com/gb/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/gb/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 DIN RA - DIN rail adapter

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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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## FL RJ45 PROTECT CAP - Dust protection

2832991

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Dust protection caps for RJ45 socket



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E/NS 35 N - End clamp

0800886

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End clamp, width: 9.5 mm, color: gray



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