

# FL SWITCH SFN 4TX/FX - Industrial Ethernet Switch



2891851

<https://www.phoenixcontact.com/us/products/2891851>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Ethernet switch, 4 TP RJ45 ports, 1 FO port, 100 Mbps full duplex in SC-D format, 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
- QoS-prioritized (Quality of Service) messages
- The switch also offers cable locking and port blocking
- Local diagnostic indicators with LEDs
- Auto negotiation and autocrossing detection simplifies installation and setup

## Commercial data

Item number	2891851
Packing unit	1 pc
Sales key	DN19
Product key	DNN113
Catalog page	Page 291 (C-6-2019)
GTIN	4046356100809
Weight per piece (including packing)	410.4 g
Weight per piece (excluding packing)	265 g
Customs tariff number	85176200
Country of origin	TW

# FL SWITCH SFN 4TX/FX - Industrial Ethernet Switch

2891851

<https://www.phoenixcontact.com/us/products/2891851>



## Technical data

### Dimensions

Width	30 mm
Height	120 mm
Depth	70 mm

### Material specifications

Housing material	Aluminum
------------------	----------

### Mounting

Mounting type	DIN rail mounting
---------------	-------------------

### Interfaces

#### Ethernet (RJ45)

Number of interfaces	4
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

Number of interfaces	1
Connection method	SC
Transmission speed	100 Mbps (full duplex)
Transmission physics	multi-mode fiberglass
Transmission length	2000 m (Fiberglass 50/125)
	2000 m (Fiberglass 62.5/125)
Wavelength	1300 nm
No. of channels	1 (SC multi-mode)

### Product properties

Product type	Switch
Product family	Unmanaged Switch SFN
Type	Block design
MTTF	193 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)

### Insulation characteristics

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
------------------	---------------------------------------

### Switch functions

# FL SWITCH SFN 4TX/FX - Industrial Ethernet Switch

2891851

<https://www.phoenixcontact.com/us/products/2891851>



Basic functions	Unmanaged switch / auto negotiation, complies with IEEE 802.3, store and forward switching mode
Status and diagnostic indicators	LEDs: $U_S$ , 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
-----------------	---

## 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	3.36 W
Test section	500 V DC 1 min.
Transmission medium	Copper FO

## Supply

Supply voltage (DC)	24 V DC
Supply voltage range	9 V DC ... 32 V DC
Residual ripple	3.6 $V_{PP}$ (within the permitted voltage range)
Typical current consumption	140 mA (at $U_S = 24$ 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	24 ... 12
Stripping length	7 mm

## 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)
Vibration (operation)	in acc. with IEC 60068-2-6: 5g, 150 Hz
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)
Resistance to gases that may endanger the functions, in acc. with DIN 40046-36, DIN 40046-37	Sulfur dioxide (SO <sub>2</sub> ) 10 ±0.3 cm <sup>3</sup> /m <sup>3</sup> , hydrogen sulfide (H <sub>2</sub> S) 1 ±0.3 cm <sup>3</sup> /m <sup>3</sup> , at 25°C and 75% humidity and exposure of four days

## EMC data

# FL SWITCH SFN 4TX/FX - Industrial Ethernet Switch

2891851

<https://www.phoenixcontact.com/us/products/2891851>



Noise immunity	EN 61000-6-2:2005
Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
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
-----------------	---

### Signaling

Status display	LEDs: $U_S$ , link and activity per port
----------------	--

# FL SWITCH SFN 4TX/FX - Industrial Ethernet Switch

2891851

<https://www.phoenixcontact.com/us/products/2891851>



## Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2891851>



**EAC**

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



**UL Listed**

Approval ID: FILE E 140324



**cUL Listed**

Approval ID: FILE E 140324



**KC**

Approval ID: KCC-REI-PCK-FL289185



**cUL Listed**

Approval ID: FILE E 199827



**UL Listed**

Approval ID: FILE E 199827

**cULus Listed**

**cULus Listed**

# FL SWITCH SFN 4TX/FX - Industrial Ethernet Switch

2891851

<https://www.phoenixcontact.com/us/products/2891851>



## Classifications

### ECLASS

ECLASS-11.0	19170402
ECLASS-13.0	19170402

### ETIM

ETIM 9.0	EC000734
----------	----------

### UNSPSC

UNSPSC 21.0	43222600
-------------	----------

# FL SWITCH SFN 4TX/FX - Industrial Ethernet Switch

2891851

<https://www.phoenixcontact.com/us/products/2891851>



## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(a), 7(c)-I

### China RoHS

Environment friendly use period (EFUP)	EFUP-10
An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.	

### EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
-------------------------------------	----------------------

# FL SWITCH SFN 4TX/FX - Industrial Ethernet Switch



2891851

<https://www.phoenixcontact.com/us/products/2891851>

## Accessories

### MSTB 2,5/ 4-ST - PCB connector

1754481

<https://www.phoenixcontact.com/us/products/1754481>



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: 4, number of rows: 1, number of positions: 4, number of connections: 4, 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

### 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.

# FL SWITCH SFN 4TX/FX - Industrial Ethernet Switch



2891851

<https://www.phoenixcontact.com/us/products/2891851>

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

2832865

<https://www.phoenixcontact.com/us/products/2832865>

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



---

## FL DIN RA - DIN rail adapter

2891053

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



# FL SWITCH SFN 4TX/FX - Industrial Ethernet Switch



2891851

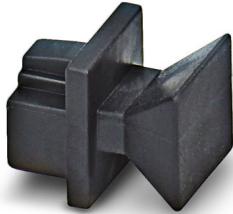
<https://www.phoenixcontact.com/us/products/2891851>

## FL RJ45 PROTECT CAP - Dust protection

2832991

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

Dust protection caps for RJ45 socket



---

## E/NS 35 N - End bracket

0800886

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

End clamp, width: 9.5 mm, color: gray



# FL SWITCH SFN 4TX/FX - Industrial Ethernet Switch

2891851

<https://www.phoenixcontact.com/us/products/2891851>



## FL CAT5 PATCH 0,5 - Patch cable

2832263

<https://www.phoenixcontact.com/us/products/2832263>

Patch cable, CAT5, assembled, 0.5 m



## FL CAT5 PATCH 1,0 - Patch cable

2832276

<https://www.phoenixcontact.com/us/products/2832276>

Patch cable, CAT5, assembled, 1 m



# FL SWITCH SFN 4TX/FX - Industrial Ethernet Switch

2891851

<https://www.phoenixcontact.com/us/products/2891851>



## FL CAT5 PATCH 2,0 - Patch cable

2832289

<https://www.phoenixcontact.com/us/products/2832289>

Patch cable, CAT5, assembled, 2 m



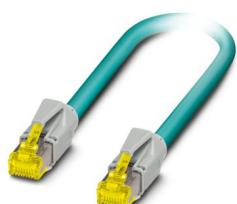
---

## 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



# FL SWITCH SFN 4TX/FX - Industrial Ethernet Switch



2891851

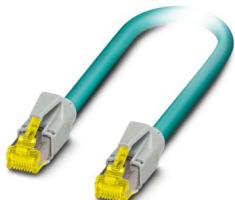
<https://www.phoenixcontact.com/us/products/2891851>

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



---

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



# FL SWITCH SFN 4TX/FX - Industrial Ethernet Switch



2891851

<https://www.phoenixcontact.com/us/products/2891851>

NBC-R4AC/1,0-93B/R4AC - Patch cable

1408968

<https://www.phoenixcontact.com/us/products/1408968>

Patch cable, degree of protection: IP20, cable length: 1 m, number of positions: 4, 100 Mbps, CAT5, material: PA 6.6, PROFINET



---

NBC-R4AC/2,0-93B/R4AC - Patch cable

1408969

<https://www.phoenixcontact.com/us/products/1408969>

Patch cable, degree of protection: IP20, cable length: 2 m, number of positions: 4, 100 Mbps, CAT5, material: PA 6.6, PROFINET



# FL SWITCH SFN 4TX/FX - Industrial Ethernet Switch



2891851

<https://www.phoenixcontact.com/us/products/2891851>

NBC-R4AC/5,0-93B/R4AC - Patch cable

1408970

<https://www.phoenixcontact.com/us/products/1408970>

Patch cable, degree of protection: IP20, cable length: 5 m, number of positions: 4, 100 Mbps, CAT5, material: PA 6.6, PROFINET



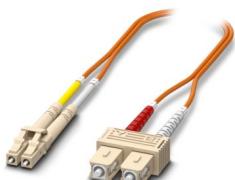
---

FOC-LC:PA-SC:PA-OM2:D01/1 - FO patch cable

1115607

<https://www.phoenixcontact.com/us/products/1115607>

Multi-mode OM2 duplex jumper, LC-SC, UPC polishing, length 1 m



# FL SWITCH SFN 4TX/FX - Industrial Ethernet Switch



2891851

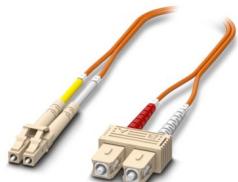
<https://www.phoenixcontact.com/us/products/2891851>

FOC-LC:PA-SC:PA-OM2:D01/2 - FO patch cable

1115605

<https://www.phoenixcontact.com/us/products/1115605>

Multi-mode OM2 duplex jumper, LC-SC, UPC polishing, length 2 m



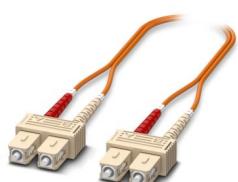
---

FOC-SC:PA-SC:PA-OM2:D01/1 - FO patch cable

1115536

<https://www.phoenixcontact.com/us/products/1115536>

Multi-mode OM2 duplex jumper, SC-SC, UPC polishing, length 1 m



# FL SWITCH SFN 4TX/FX - Industrial Ethernet Switch



2891851

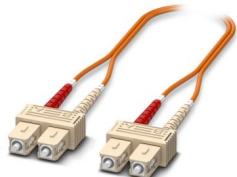
<https://www.phoenixcontact.com/us/products/2891851>

FOC-SC:PA-SC:PA-OM2:D01/2 - FO patch cable

1115535

<https://www.phoenixcontact.com/us/products/1115535>

Multi-mode OM2 duplex jumper, SC-SC, UPC polishing, length 2 m



---

FOC-ST:PA-SC:PA-OM2:D01/1 - FO patch cable

1115574

<https://www.phoenixcontact.com/us/products/1115574>

Multi-mode OM2 duplex jumper, ST-SC, UPC polishing, length 1 m



# FL SWITCH SFN 4TX/FX - Industrial Ethernet Switch



2891851

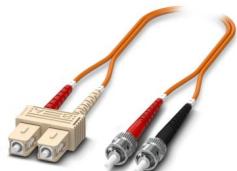
<https://www.phoenixcontact.com/us/products/2891851>

FOC-ST:PA-SC:PA-OM2:D01/2 - FO patch cable

1115573

<https://www.phoenixcontact.com/us/products/1115573>

Multi-mode OM2 duplex jumper, ST-SC, UPC polishing, length 2 m



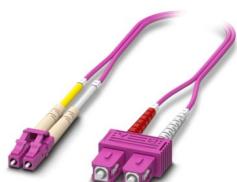
---

FOC-LC:PA-SC:PA-OM4:D01/1 - FO patch cable

1115601

<https://www.phoenixcontact.com/us/products/1115601>

Multi-mode OM4 duplex jumper, LC-SC, UPC polishing, length 1 m



# FL SWITCH SFN 4TX/FX - Industrial Ethernet Switch



2891851

<https://www.phoenixcontact.com/us/products/2891851>

FOC-LC:PA-SC:PA-OM4:D01/2 - FO patch cable

1115600

<https://www.phoenixcontact.com/us/products/1115600>

Multi-mode OM4 duplex jumper, LC-SC, UPC polishing, length 2 m



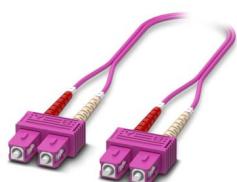
---

FOC-SC:PA-SC:PA-OM4:D01/1 - FO patch cable

1115424

<https://www.phoenixcontact.com/us/products/1115424>

Multi-mode OM4 duplex jumper, SC-SC, UPC polishing, length 1 m



# FL SWITCH SFN 4TX/FX - Industrial Ethernet Switch

2891851

<https://www.phoenixcontact.com/us/products/2891851>

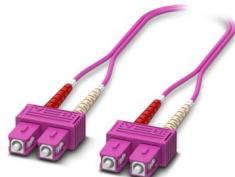


FOC-SC:PA-SC:PA-OM4:D01/2 - FO patch cable

1115423

<https://www.phoenixcontact.com/us/products/1115423>

Multi-mode OM4 duplex jumper, SC-SC, UPC polishing, length 2 m



---

Phoenix Contact 2024 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)