

# FL SWITCH SFNT 6TX/2FX - Industrial Ethernet Switch



2891025

<https://www.phoenixcontact.com/us/products/2891025>

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Wide-temperature Ethernet switch, 6 TP RJ45 ports, 2 FO ports, 100 Mbps full duplex in SC-D format, automatic detection of data transmission speed of 10 or 100 Mbps (RJ45), autocrossing function, autocrossing function, reads QoS priority messages, accepts security frames

## Your advantages

- QoS-prioritized (Quality of Service) messages
- RJ45 ports support a transmission speed of 10/100 Mbps
- Fiber-optic ports support 100 Mbps
- Wide operating temperature range of -40 °C ... 75 °C
- Local diagnostic indicators with LEDs
- Alarm contact for power supply and link status diagnostics
- The switch also offers cable locking and port blocking
- Auto negotiation and autocrossing detection simplifies installation and setup

## Commercial data

Item number	2891025
Packing unit	1 pc
Sales key	DN19
Product key	DNN113
Catalog page	Page 297 (C-6-2019)
GTIN	4046356587969
Weight per piece (including packing)	648 g
Weight per piece (excluding packing)	484 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

### Notes

#### Utilization restriction

CCCex note	Use in potentially explosive areas is not permitted in China.
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### 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	6 (RJ45 ports)

#### Fiber optic interface

Connection method	SC
Transmission speed	100 Mbps (full duplex)
Transmission physics	multi-mode fiberglass
Transmission length	12.1 km (fiberglass with F-G 62.5/125 0.7 dB/km F1000) 3.3 km (fiberglass with F-G 62.5/125 2.6 dB/km F600) 7.1 km (fiberglass with F-G 50/125 0.7 dB/km F1200) 3.1 km (fiberglass with F-G 50/125 1.6 dB/km F800)
Wavelength	1300 nm
No. of channels	2 (SC multi-mode)

### Product properties

Product type	Switch
Product family	Unmanaged Switch SFNT
Type	Block design
MTTF	43.9 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)

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## Switch functions

Basic functions	Unmanaged switch / autonegotiation, complies with IEEE 802.3, store and forward switching mode, includes QoS and alarm contact
Status and diagnostic indicators	LEDs: U <sub>S1</sub> , U <sub>S2</sub> (redundant voltage supply), link and activity per port
Additional functions	Autonegotiation

## Security functions

Basic functions	Unmanaged switch / autonegotiation, complies with IEEE 802.3, store and forward switching mode, includes QoS and alarm contact
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## Electrical properties

Local diagnostics	US1/2 Supply voltage Green LED
	LNK/ACT Link status/data transmission Green LED
	100 Data transmission speed Yellow LED
Maximum power dissipation for nominal condition	6 W
Transmission medium	Copper
	FO

## Supply

Supply voltage (DC)	24 V DC (redundant)
Supply voltage range	9 V DC ... 32 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	250 mA (at U <sub>S</sub> = 24 V DC)

## Connection data

Conductor cross section, rigid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section, flexible	2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section AWG	24 ... 14
Stripping length	7 mm

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 75 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)
Air pressure (operation)	62 kPa ... 108 kPa (up to 4160 m above mean sea level)
Air pressure (storage/transport)	62 kPa ... 108 kPa (up to 4160 m above mean sea level)

## Approvals

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## Conformity/Approvals

Conformance	CE-compliant
ATEX	Ⓜ II 3 G Ex nA nC IIC T4 Gc
EU-type examination certificate	DEMKO 16 ATEX 1617X
IECEX	Ex nA nC IIC T4 Gc
IECEX certificate	IECEX UL 16.0093X
UL, USA / Canada	Class I, Div. 2, Groups A, B, C, D

## 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

### Functionality

Basic functions	Unmanaged switch / autonegotiation, complies with IEEE 802.3, store and forward switching mode, includes QoS and alarm contact
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## Signaling

Status display	LEDs: U <sub>S1</sub> , U <sub>S2</sub> (redundant voltage supply), link and activity per port
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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2891025>



**EAC**

Approval ID: RU \*-DE.A\*08.B.00739



**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: MSIP-REI-PCK-2891025



**IECEX**

Approval ID: IECEX UL 16.0093X



**cUL Listed**

Approval ID: FILE E 199827



**UL Listed**

Approval ID: FILE E 199827



**ATEX**

Approval ID: DEMKO 16 ATEX 1617X

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## Classifications

### ECLASS

ECLASS-12.0	19170402
ECLASS-11.0	19170402

### ETIM

ETIM 8.0	EC000734
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### UNSPSC

UNSPSC 21.0	43222600
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## 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)
SCIP	283d8abd-2100-4226-bfed-08a3c5adb638

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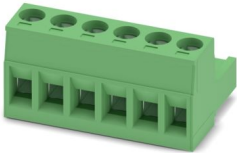
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## Accessories

### 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

### 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 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



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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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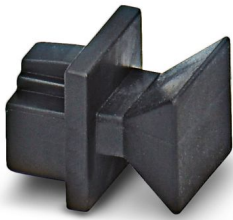
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## FL RJ45 PROTECT CAP - Dust protection

2832991

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



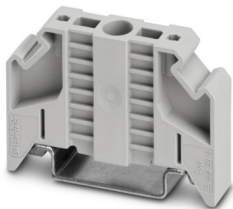
Dust protection caps for RJ45 socket

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## E/NS 35 N - End bracket

0800886

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



End clamp, width: 9.5 mm, color: gray

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## FL PA SFNT 5-8 - Mounting panel

2891012

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Mounting plate for SFNT switches



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## FL CAT5 PATCH 0,5 - Patch cable

2832263

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

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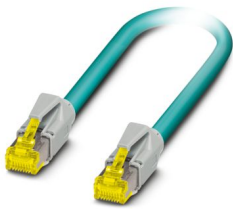
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## NBC-R4AC-R4AC-IE8A/.../... - Patch cable

1411854

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



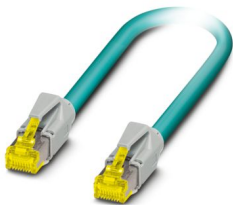
Patch cable, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6<sub>A</sub>, cable outlet: straight, Ethernet

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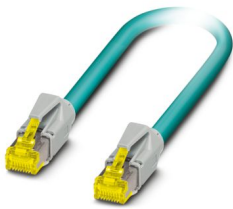
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## NBC-R4AC/10G-R4AC/10G-94F/3,0 - Patch cable

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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## 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

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## 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

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## 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

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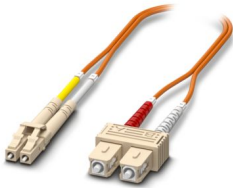
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FOC-LC:PA-SC:PA-OM2:D01/1 - FO patch cable

1115607

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

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



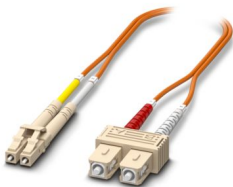
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FOC-LC:PA-SC:PA-OM2:D01/2 - FO patch cable

1115605

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

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



# FL SWITCH SFNT 6TX/2FX - Industrial Ethernet Switch



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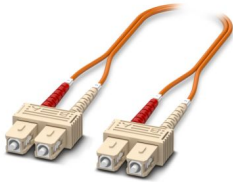
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FOC-SC:PA-SC:PA-OM2:D01/1 - FO patch cable

1115536

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

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



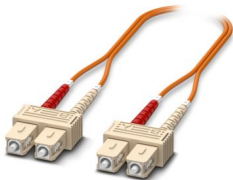
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FOC-SC:PA-SC:PA-OM2:D01/2 - FO patch cable

1115535

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

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



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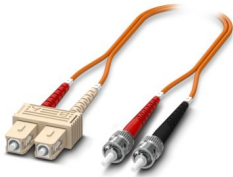
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FOC-ST:PA-SC:PA-OM2:D01/1 - FO patch cable

1115574

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

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



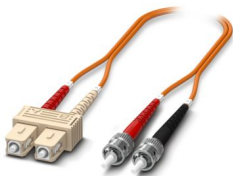
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FOC-ST:PA-SC:PA-OM2:D01/2 - FO patch cable

1115573

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



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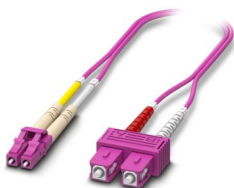
<https://www.phoenixcontact.com/us/products/2891025>

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



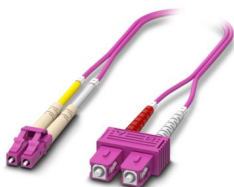
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FOC-LC:PA-SC:PA-OM4:D01/2 - FO patch cable

1115600

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



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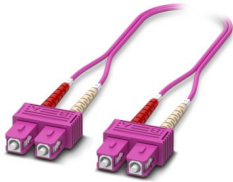
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FOC-SC:PA-SC:PA-OM4:D01/1 - FO patch cable

1115424

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

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



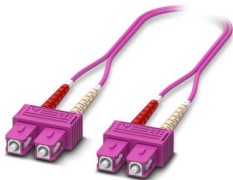
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FOC-SC:PA-SC:PA-OM4:D01/2 - FO patch cable

1115423

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

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



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