

# FL SWITCH SFN 7TX/FX ST - Industrial Ethernet Switch



2891110

<https://www.phoenixcontact.com/us/products/2891110>

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Ethernet Switch, 7 TP RJ45 ports, 1 FO port, 100 Mbps full duplex in ST-D format, automatic detection of data transmission speed of 10 or 100 Mbps (RJ45), autocrossing function

## Your advantages

- QoS-prioritized (Quality of Service) messages
- RJ45 ports support a transmission speed of 10/100 Mbps
- Fiber-optic ports support 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	2891110
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	DN19
Product key	DNN113
Catalog page	Page 291 (C-6-2019)
GTIN	4046356100847
Weight per piece (including packing)	501 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	120 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	7 (RJ45 ports)

#### Fiber optic interface

Connection method	ST
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 (ST multi-mode)

### Product properties

Type	Block design
Product type	Switch
Product family	Unmanaged Switch SFN
MTTF	67.3 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)

#### Insulation characteristics

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

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

## 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	4.56 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
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	190 mA (at U <sub>S</sub> = 24 V DC)

## Connection data

### Connection technology

Connection name	Power supply
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### Power supply

Connection method	Pluggable COMBICON screw connections
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)

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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
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## Standards and regulations

Free from substances that could impair the application of coating	In acc. with VW specification
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## EMC data

Conformance with EMC directives	IEC 61000-6-2 IEC 61000-4-2 (ESD) Criterion B
	IEC 61000-4-3 (immunity to radiated interference) Criterion A
	IEC 61000-4-4 (burst) Criterion B
	IEC 61000-4-5 (surge) Criterion B
	IEC 61000-4-6 (immunity to conducted interference) Criterion A
	IEC 61000-4-8 (immunity to magnetic fields) Criterion A
	EN 55022 (emitted interference) Criterion A
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
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## 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/us/products/2891110>



**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



**UL Listed**

Approval ID: FILE E 199827



**UL Listed**

Approval ID: FILE E 196811



**cUL Listed**

Approval ID: FILE E 196811

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## Classifications

### ECLASS

ECLASS-11.0

19170402

### ETIM

ETIM 9.0

EC000734

### 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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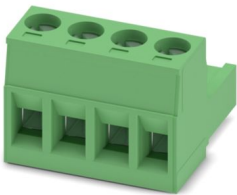
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## Accessories

### MSTB 2,5/ 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

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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 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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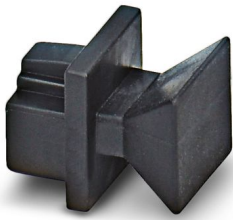
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## FL RJ45 PROTECT CAP - Dust protection

2832991

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



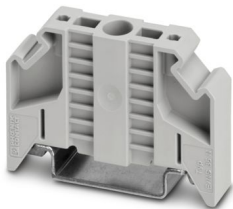
Dust protection caps for RJ45 socket

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## E/NS 35 N - End bracket

0800886

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



End clamp, width: 9.5 mm, color: gray

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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

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

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



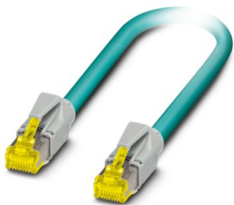
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## NBC-R4AC-R4AC-IE8A/.../... - Patch cable

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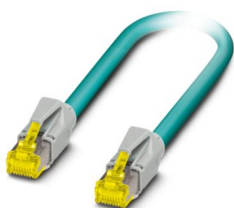
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## NBC-R4AC/10G-R4AC/10G-94F/2,0 - Patch cable

1408360

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



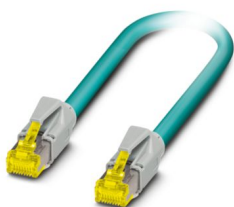
Patch cable, CAT6<sub>A</sub>, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 2.0 m

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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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## 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

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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>



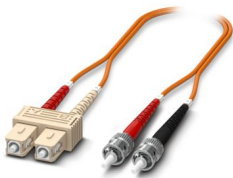
Patch cable, degree of protection: IP20, cable length: 5 m, number of positions: 4, 100 Mbps, CAT5, material: PA 6.6, PROFINET

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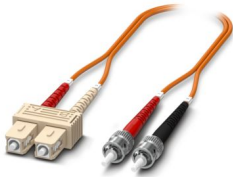
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FOC-ST:PA-SC:PA-OM2:D01/2 - FO patch cable

1115573

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

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



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

1115560

<https://www.phoenixcontact.com/us/products/1115560>

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





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

1115557

<https://www.phoenixcontact.com/us/products/1115557>

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



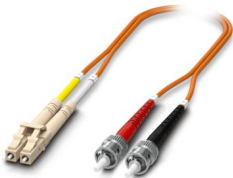
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## FOC-LC:PA-ST:PA-OM2:D01/1 - Fiber optic cable

1115588

<https://www.phoenixcontact.com/us/products/1115588>

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



# FL SWITCH SFN 7TX/FX ST - Industrial Ethernet Switch



2891110

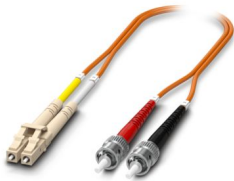
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FOC-LC:PA-ST:PA-OM2:D01/2 - Fiber optic cable

1115587

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



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