

FL SWITCH SFNT 5GT-C - Industrial Ethernet Switch



2891391

<https://www.phoenixcontact.com/us/products/2891391>

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Wide-temperature Ethernet switch, five TP RJ45 ports, automatic detection of data transmission speed of 10/100/1000 Mbps (RJ45), autocrossing function, reads QoS priority messages, accepts security frames. Conformal coating for harsh environments.

Product description

The FL SWITCH SFN 5GT supports the auto negotiation function at the twisted-pair ports and offers transmission speeds of 10/100/1000 Mbps. Mixed operation for the connection of segments with different data transmission speeds is also supported.

Switching properties

-Multi-address function

The switch can store up to 8192 MAC addresses in its address table.

-Quality of service

In case of heavy traffic, packets tagged with higher priority 802.1Q or Differentiated Services values will be given preference. The switch has four internal priority queues.

-Multicast filtering

The multicast filter will block PROFINET PTCP-Delay traffic. This is accomplished 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.

-Alarm contact

The switch provides contacts (R1, R2) for remote alarms if a failure is detected. Alarms are triggered if one or both power supplies fail. An alarm can be triggered if a port link is lost. Individual port alarms can be enabled via a DIP switch located on the bottom of the switch. The alarm relay is a normally closed type. When there are no faults, the contact is held open. When a fault occurs, the relay is de-energized to close the contact.

-Link monitor DIP switch

To enable an alarm for a port, move the appropriate slider to the ON position. To disable an alarm, move the appropriate slider to the OFF position.

Power connection is via a removable COMBICON connector. US1 and US2 are 24 V DC and GND is 0 V DC. FE symbol is functional earth.

Your advantages

- Wide operating temperature range of -40 °C ... 75 °C
- All ports offer transmission speeds of 1000 Mbps
- Jumbo frame support (frame size up to 10,240 bytes/frame)
- QoS-prioritized (Quality of Service) messages
- Alarm contact for power supply and link status diagnostics
- The switch also offers cable locking and port blocking

Commercial data

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Item number	2891391
Packing unit	1 pc
Sales key	DN19
Product key	DNN113
Catalog page	Page 295 (C-6-2019)
GTIN	4055626001104
Weight per piece (including packing)	515 g
Weight per piece (excluding packing)	245 g
Customs tariff number	85176200
Country of origin	TW

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Technical data

Dimensions

Width	30 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	10/100/1000 Mbps
Transmission physics	Ethernet in RJ45 twisted pair
No. of channels	5 (RJ45 ports)

Product properties

Product type	Switch
Product family	Unmanaged Switch SFNT
Type	Block design
MTTF	121.4 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)

Switch functions

Basic functions	Unmanaged switch / autonegotiation, complies with IEEE 802.3, store and forward switching mode, includes QoS and alarm contact
PROFINET conformance class	Conformance-Class A
Status and diagnostic indicators	LEDs: U _{S1} , U _{S2} (redundant voltage supply), link and activity per port
Additional functions	Autonegotiation
	Jumbo frames (Max. 10,240 bytes)

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

Maximum power dissipation for nominal condition	5.35 W
Transmission medium	Copper

Supply

Supply voltage (DC)	24 V DC (redundant)
Supply voltage range	10 V DC ... 60 V DC
Power supply connection	Via COMBICON, max. conductor cross section 2.5 mm ²
Inrush current	7.2 A (400 µs)
Residual ripple	3.6 V _{PP} (within the permitted voltage range)
Max. current consumption	547 mA (10 V DC)
Typical current consumption	223 mA (at U _S = 24 V DC)

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)
Air pressure (operation)	62 kPa ... 108 kPa (up to 4850 m above mean sea level)
Air pressure (storage/transport)	62 kPa ... 108 kPa (up to 4850 m above mean sea level)

EMC data

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

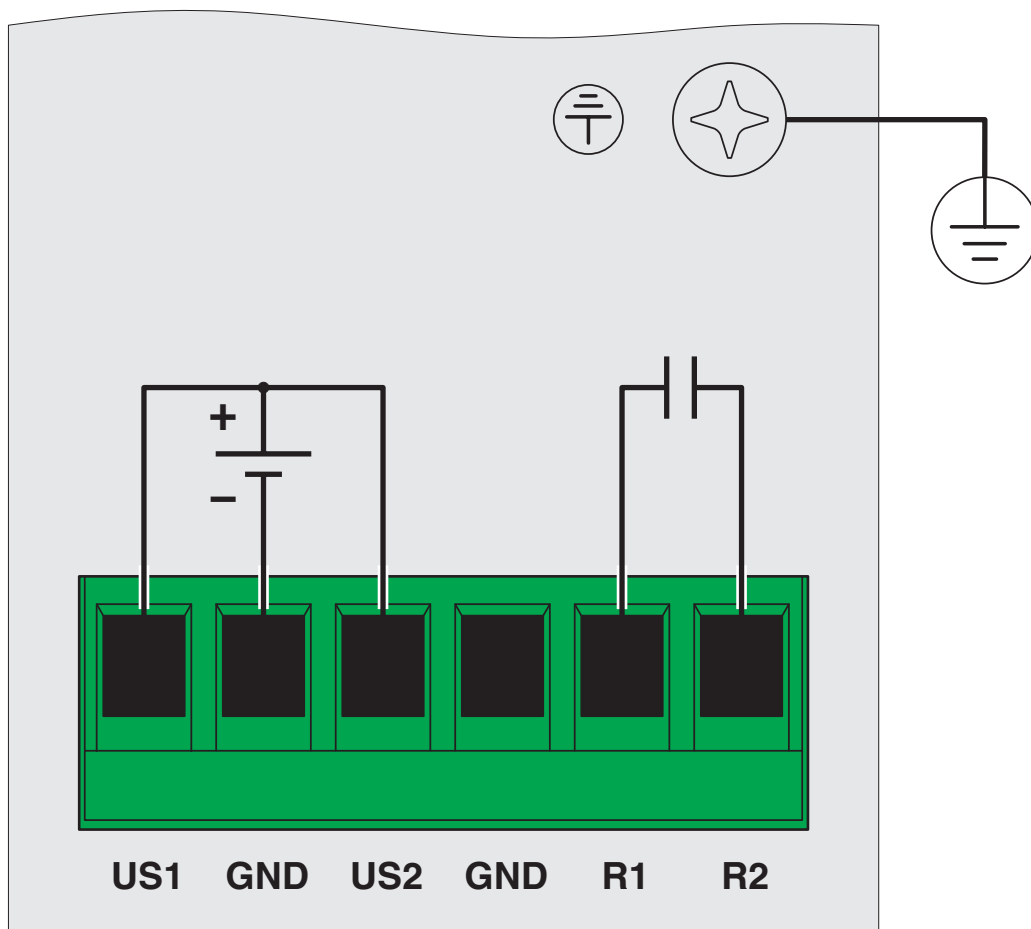
Basic functions	Unmanaged switch / autonegotiation, complies with IEEE 802.3, store and forward switching mode, includes QoS and alarm contact
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Signaling

Status display	LEDs: U _{S1} , U _{S2} (redundant voltage supply), link and activity per port
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Drawings

Connection diagram



Single power supply connection

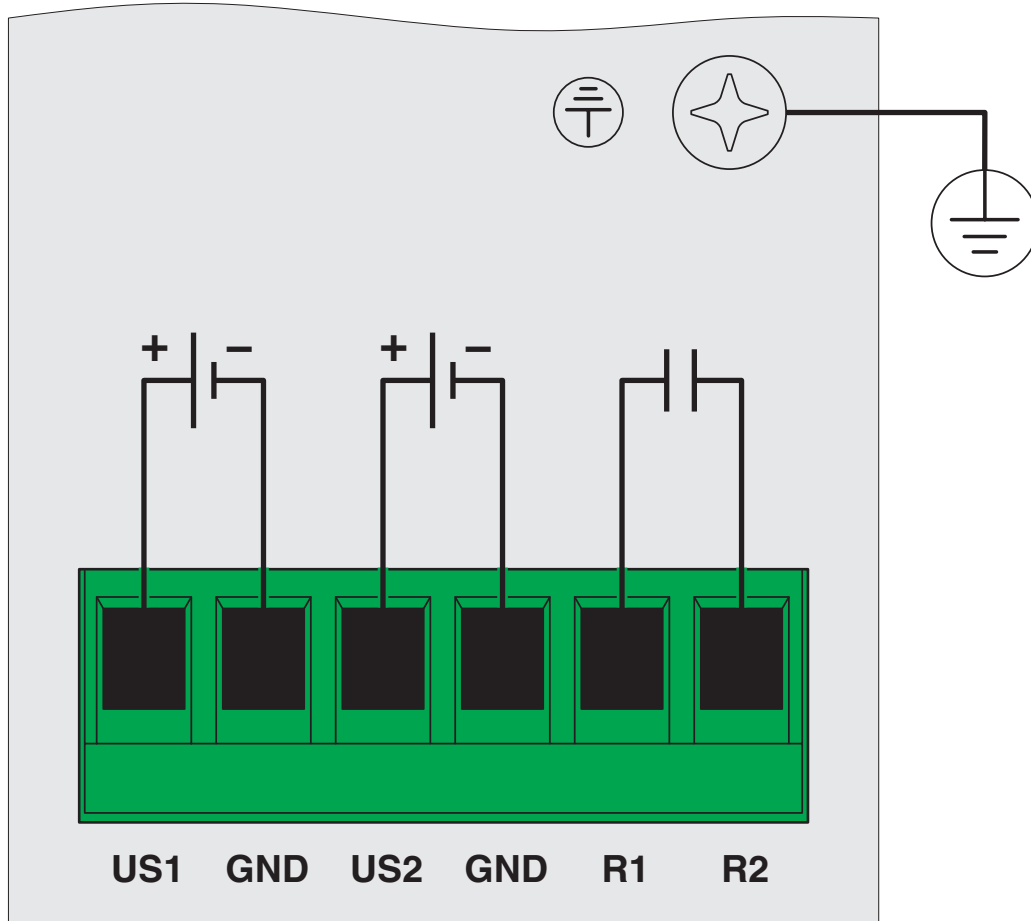
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Connection diagram



Redundant power supply connection

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Approvals

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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 199827



UL Listed
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Classifications

ECLASS

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

ETIM

ETIM 9.0	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)

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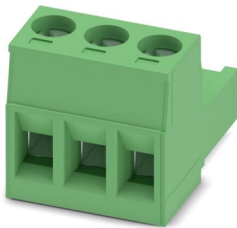
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Accessories

MSTB 2,5/ 3-ST - PCB connector

1754465

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PCB connector, nominal cross section: 2.5 mm², 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

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

2881007

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Surge protection in accordance with Class E_A (CAT6_A), 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

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Patch cable, CAT5, assembled, 0.5 m



FL CAT5 PATCH 1,0 - Patch cable

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Patch cable, CAT5, assembled, 1 m



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FL CAT5 PATCH 2,0 - Patch cable

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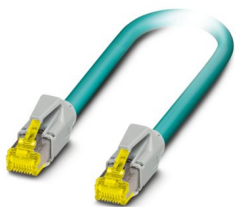


Patch cable, CAT5, assembled, 2 m

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

1411854

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Patch cable, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6_A, cable outlet: straight, Ethernet

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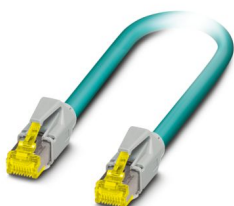
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NBC-R4AC/10G-R4AC/10G-94F/2,0 - Patch cable

1408360

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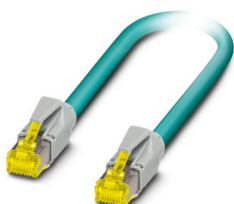


Patch cable, CAT6_A, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 2.0 m

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

1408365

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Patch cable, CAT6_A, 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



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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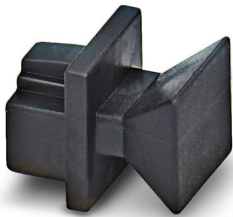
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FL RJ45 PROTECT CAP - Dust protection

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Dust protection caps for RJ45 socket

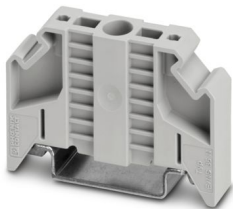


E/NS 35 N - End bracket

0800886

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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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