

Industrial Ethernet Switch - FL SWITCH SFNT 5GT - 2891390

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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.

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

- ✓ 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
- ✓ The switch also offers cable locking and port blocking
- ✓ Alarm contact for power supply and link status diagnostics
- ✓ Wide operating temperature range (-40°C ... +75°C)

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RoHS

Key Commercial Data

| | |
|--------------------------------------|---|
| Packing unit | 1 pc |
| GTIN |  4 055626 000893 |
| GTIN | 4055626000893 |
| Weight per Piece (excluding packing) | 520.000 g |
| Custom tariff number | 85176200 |
| Country of origin | Taiwan |

Technical data

Note

| | |
|-------------------------|---|
| Utilization restriction | EMC: class A product, see manufacturer's declaration in the download area |
|-------------------------|---|

Dimensions

| | |
|--------|--------|
| Width | 30 mm |
| Height | 130 mm |
| Depth | 100 mm |

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) |

Interfaces

| | |
|-------------------------------|-----------------------------------|
| Interface | Ethernet (RJ45) |
| No. of ports | 5 (RJ45 ports) |
| Note on the connection method | Auto negotiation and autocrossing |
| Transmission physics | Ethernet in RJ45 twisted pair |
| Transmission speed | 10/100/1000 Mbps |

Function

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

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Technical data

Function

| | |
|----------------------------------|--|
| | Jumbo frames (Max. 10,240 bytes) |
| PROFINET conformance class | Conformance-Class A |
| Status and diagnostic indicators | LEDs: U _{S1} , U _{S2} (redundant voltage supply), link and activity per port |

Network expansion parameters

| | |
|---|--|
| Cascading depth | Network, linear, and star structure: any |
| Maximum conductor length (twisted pair) | 100 m |

Supply voltage

| | |
|-----------------------------|--|
| Supply voltage | 24 V DC (redundant) |
| Residual ripple | 3.6 V _{PP} (within the permitted voltage range) |
| Supply voltage range | 10 V DC ... 60 V DC |
| Typical current consumption | 223 mA (at U _S = 24 V DC) |
| Max. current consumption | 547 mA (10 V DC) |
| Inrush current | 7.2 A (400 µs) |

General

| | |
|------------------|--|
| Mounting type | DIN rail |
| Type AX | Block design |
| Net weight | 516 g |
| Housing material | Aluminum |
| MTTF | 121.4 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%) |

Standards and Regulations

| | |
|-------------------------------|--|
| Electromagnetic compatibility | Conformance with EMC Directive 2004/108/EC |
| Noise emission | EN 61000-6-4 |
| Noise immunity | EN 61000-6-2:2005 |
| UL, USA/Canada | Class I, Div. 2, Groups A, B, C, D |

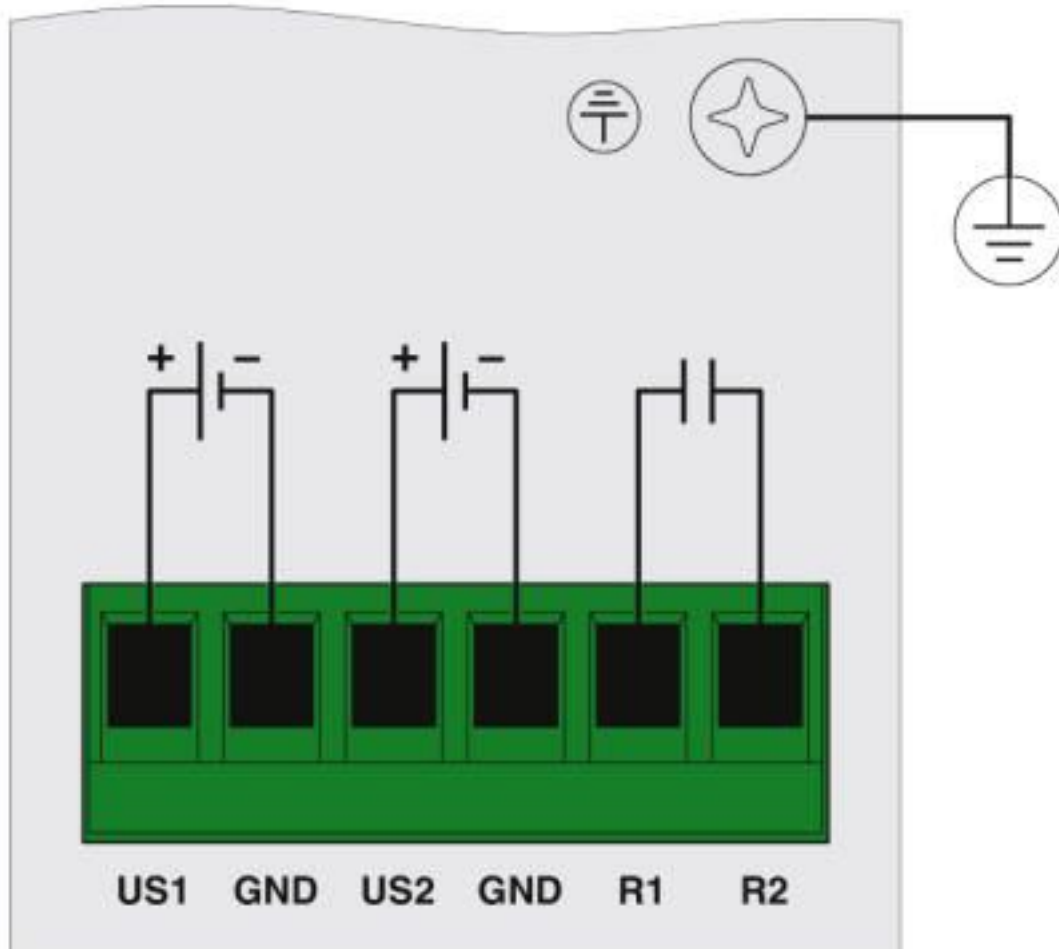
Environmental Product Compliance

| | |
|------------|---|
| REACH SVHC | Lead 7439-92-1 |
| China RoHS | Environmentally Friendly Use Period = 10; |
| | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

Drawings

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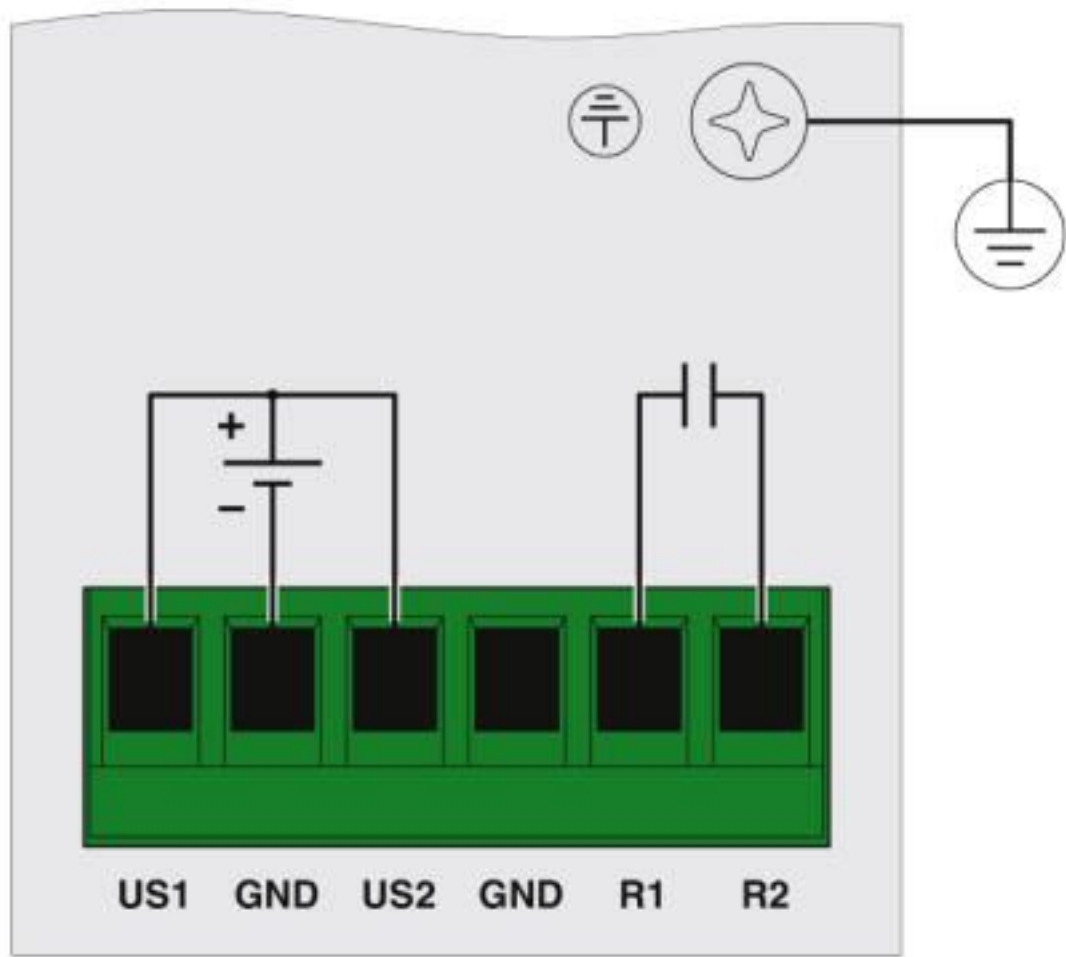
Connection diagram



Redundant power supply connection

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Connection diagram



Single power supply connection

Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 19170402 |
| eCl@ss 5.0 | 19030100 |
| eCl@ss 5.1 | 19030100 |
| eCl@ss 6.0 | 19170100 |
| eCl@ss 7.0 | 19170106 |
| eCl@ss 8.0 | 19170106 |
| eCl@ss 9.0 | 19170106 |

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Classifications

ETIM

| | |
|----------|----------|
| ETIM 5.0 | EC000734 |
| ETIM 6.0 | EC000734 |
| ETIM 7.0 | EC000734 |

UNSPSC

| | |
|-------------|----------|
| UNSPSC 13.2 | 43222612 |
| UNSPSC 18.0 | 43222612 |
| UNSPSC 19.0 | 43222612 |
| UNSPSC 20.0 | 43222612 |
| UNSPSC 21.0 | 43222612 |

Approvals

Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed


Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approval details

| | | | |
|-----------|---|---|---------------|
| UL Listed |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 140324 |
|-----------|---|---|---------------|

| | | | |
|------------|---|---|---------------|
| cUL Listed |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 140324 |
|------------|---|---|---------------|

| | | |
|-----|---|---------------------|
| EAC |  | RU*-DE.*.B.00741/19 |
|-----|---|---------------------|

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Approvals

cULus Listed



Accessories

Accessories

Assembly adapter

Mounting plate - FL PA SFNT 5-8 - 2891012



Mounting plate for SFNT switches

Data cable preassembled

Patch cable - NBC-R4AC-R4AC-IE8A/.../... - 1411854



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

Patch cable - NBC-R4AC/10G-R4AC/10G-94F/2,0 - 1408360



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

Patch cable - NBC-R4AC/10G-R4AC/10G-94F/3,0 - 1408365



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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Accessories

End block

End clamp - E/NS 35 N - 0800886



End clamp, width: 9.5 mm, color: gray

Mounting rail adapter

DIN rail adapter - FL DIN RA - 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.

Patch cable

Patch cable - FL CAT5 PATCH 0,5 - 2832263



Patch cable, CAT5, assembled, 0.5 m

Patch cable - FL CAT5 PATCH 1,0 - 2832276



Patch cable, CAT5, assembled, 1 m

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Accessories

Patch cable - FL CAT5 PATCH 2,0 - 2832289



Patch cable, CAT5, assembled, 2 m

PCB plug

Printed-circuit board connector - MSTB 2,5/ 3-ST - 1754465



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 3, pitch: 5 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin

Protective cap

Dust protection - FL RJ45 PROTECT CAP - 2832991



Dust protection caps for RJ45 socket

Safety locking

Port Guard Security Element - FL SEC PAC 4TX - 2832865



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

Surge protection for information technology

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Accessories

Surge protection device - DT-LAN-CAT.6+ - 2881007



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+) "Mode A" and "Mode B". RJ45 attachment plug with separate grounding cable and ground connection snap-on foot for NS 35 DIN rails.