

# FL SWITCH SFNT 5GT - Industrial Ethernet Switch



2891390

<https://www.phoenixcontact.com/ca/products/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
- Wide operating temperature range of -40 °C ... 75 °C
- 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                          | 2891390             |
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 1 pc                |
| Sales key                            | D25                 |
| Product key                          | DNN113              |
| Catalog page                         | Page 295 (C-6-2019) |
| GTIN                                 | 4055626000893       |
| Weight per piece (including packing) | 520 g               |
| Weight per piece (excluding packing) | 380 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. |
|------------|---------------------------------------------------------------|

### Material specifications

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

### Mounting

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

### 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 <sub>S1</sub> , U <sub>S2</sub> (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 |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------|

## 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 <sup>2</sup> |
| Inrush current              | 7.2 A (400 µs)                                                 |
| Residual ripple             | 3.6 V <sub>PP</sub> (within the permitted voltage range)       |
| Max. current consumption    | 547 mA (10 V DC)                                               |
| Typical current consumption | 223 mA (at U <sub>S</sub> = 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)         | -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) |

## Approvals

## Conformity/Approvals

|                  |                                    |
|------------------|------------------------------------|
| UL, USA / Canada | Class I, Div. 2, Groups A, B, C, D |
|------------------|------------------------------------|

## 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 <sub>S1</sub> , U <sub>S2</sub> (redundant voltage supply), link and activity per port |
|----------------|------------------------------------------------------------------------------------------------|

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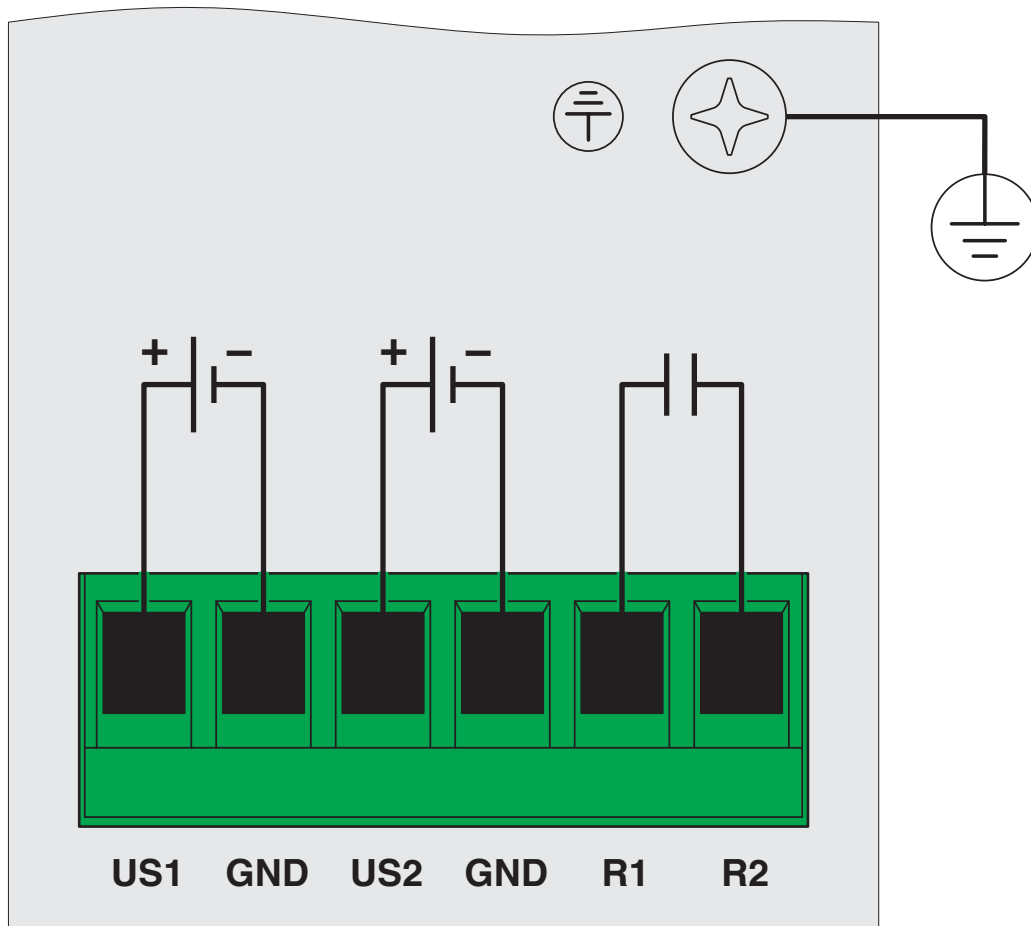
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## Drawings

Connection diagram



Redundant power supply connection

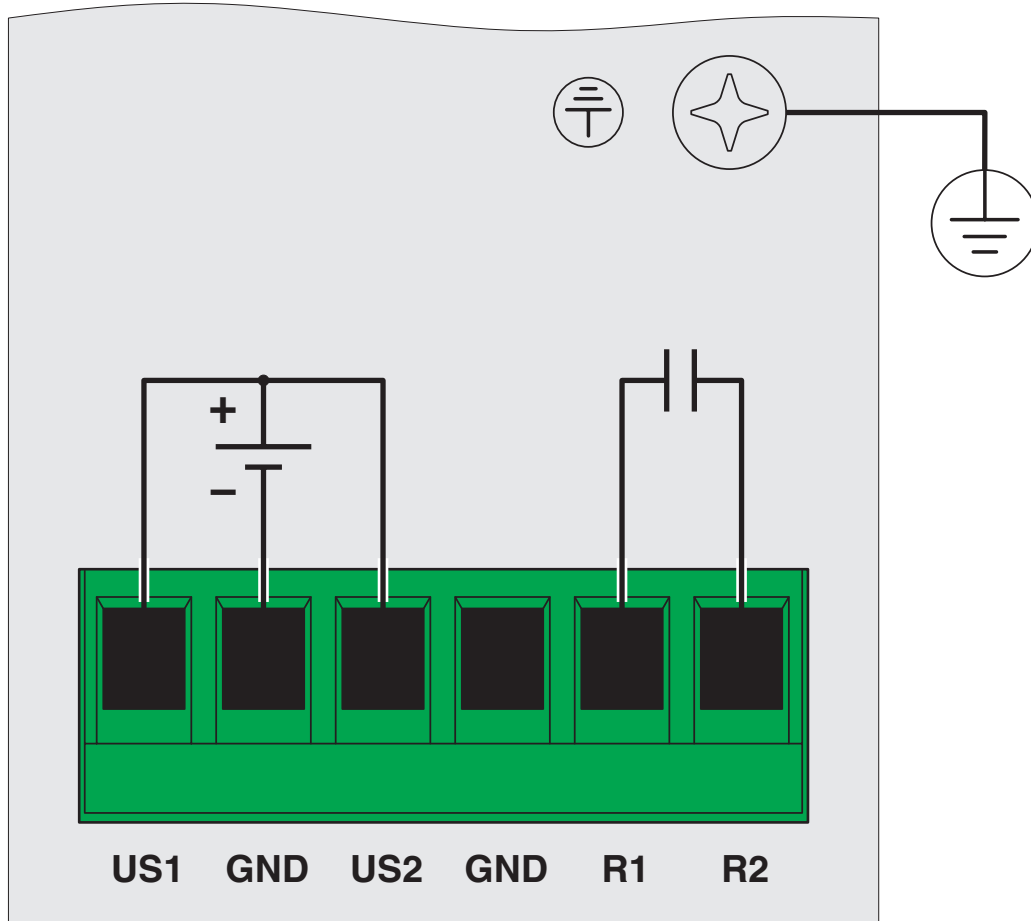
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Connection diagram



Single 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



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## Classifications

### ECLASS

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

### ETIM

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

### 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                                    | b88a4616-3010-4ce1-be40-2e098fcbd532                                                                                                                                                                                              |

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