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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, functional earth.

### **Product Features**

- 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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# Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	550.0 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
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### 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 1	Ethernet (RJ45)
No. of ports	5 (RJ45 ports)
Connection method	RJ45
Note on connection method	Auto negotiation and autocrossing
Transmission physics	Ethernet in RJ45 twisted pair
Transmission speed	10/100/1000 MBit/s

### Function

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: $U_{\text{S1}},U_{\text{S2}}$ (redundant voltage supply), link and activity per port, alarm (power and link down)

## Network expansion parameters

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

Supply voltage



## Technical data

## 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	typ. 223 mA (at U <sub>s</sub> = 24 V DC)
Max. current consumption	547 mA (10 V DC)
Inrush surge current	7.2 A (400 μs)

### General

Mounting type	DIN rail
Туре АХ	Block design
Net weight	245 g
Housing material	Aluminum
Noise emission	EN 61000-6-4

## Classifications

## eCl@ss

eCl@ss 5.1	19030117
eCl@ss 6.0	19170106

## ETIM

ETIM 5.0	EC000734

## Approvals

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### Approvals

UL Listed / cUL Listed / cULus Listed

### Ex Approvals

UL Listed / cUL Listed / cULus Listed

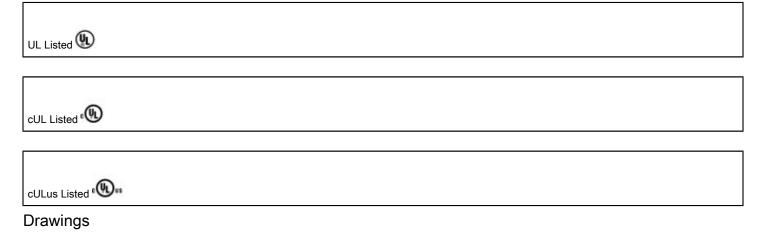
### Approvals submitted

Approval details

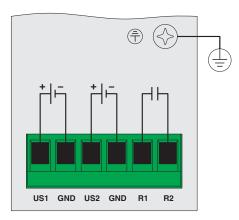
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## Approvals



### Connection diagram



Redundant power supply connection

Single power supply connection

US1 GND US2 GND

Connection diagram

(F)

R1

R2

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