

Industrial Ethernet Switch - FL SWITCH SFNT 5GT-C - 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

- ✓ 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 001104
GTIN	4055626001104
Weight per Piece (excluding packing)	550.000 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
	Use in potentially explosive areas is not permitted in China.

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

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Technical data

Function

Basic functions	Unmanaged switch / autonegotiation, complies with IEEE 802.3, store and forward switching mode, includes QoS and alarm contact
Additional functions	Autonegotiation
	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	510.6 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

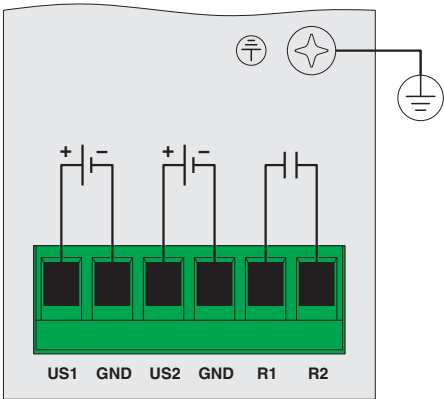
Environmental Product Compliance

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

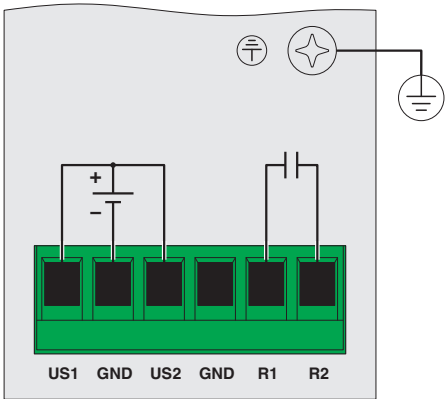
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Connection diagram



Redundant power supply connection

Connection diagram



Single power supply connection

Classifications

eCl@ss

eCl@ss 10.0.1	19170402
eCl@ss 11.0	19170402
eCl@ss 5.0	19030100
eCl@ss 5.1	19030100
eCl@ss 6.0	19170100
eCl@ss 7.0	19170106
eCl@ss 9.0	19170106

ETIM

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

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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
cULus Listed			

Accessories

Accessories

Assembly adapter

Mounting plate - FL PA SFNT 5-8 - 2891012



Mounting plate for SFNT switches

Data cable preassembled

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Accessories

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



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

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

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.

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Accessories

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

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 cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 3, Number of rows: 1, Number of positions per row: 3, number of connections: 3, product range: MSTB 2,5/...-ST, pitch: 5 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: 0 °, Locking clip: - Locking clip, plug-in system: CLASSIC COMBICON, Locking: without, type of packaging: packed in cardboard

Protective cap

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Accessories

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

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.