Industrial Ethernet Switch - FL SWITCH IRT 2TX 2POF - 2700691

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Ethernet Switch, two ports in RJ45 format and two ports in POF SC-RJ format for PROFINET RT/IRT, DIN rail mountable

Product Description

The FL SWITCH IRT are four-port switches for PROFINET applications. The ERTEC 400 switch architecture ensures optimum integration and diagnostics of infrastructure components in PROFINET networks. This enables the switches and all their functions to be configured by a higher-level PROFINET controller. Using the available GSDML or FDCML files, easy and reliable integration into the higher-level engineering system is ensured.
The devices offer the following features:
- Diagnostics and parameterization are carried out via the PROFINET protocol from the controller.
- The switches can be parameterized by any controller using the PROFINET functionality and integrated into the engineering system.
- LLDP support for topology detection in the PROFINET environment.
- DCP protocol for IP address assignment directly from the controller.
- MEM PLUG parameterization memory for storing the device configuration.
- POF-SCRJ ports for polymer or PCF fibers for field assembly including monitoring of the path quality via PROFINET and diagnostics LEDS directly on the switch.
- Thanks to the use of ERTEC 400, the switches from the FL SWITCH IRT range support PROFINET IRT including the cut-through method.
- Web-based management for easy monitoring and configuration in a web browser.
- SNMP support for monitoring and configuration with standard IT tools.

Your advantages

- Flat design
- Cut-through switching
- PN IO device
- MRP (client and manager)
- SNMP

Key Commercial Data

Packing unit	1
GTIN	4 046356 651011
GTIN	4046356651011
Custom tariff number	85176200

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Technical data

Note

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

Dimensions

Width	127 mm
Height	95 mm
Depth	69 mm

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)
Air pressure (operation)	86 kPa ... 108 kPa (2000 m above sea level)
Air pressure (storage/transport)	66 kPa ... 108 kPa (3500 m above sea level)

Interfaces

Interface	Ethernet
No. of ports	2 (RJ45 ports)
Transmission physics	Copper
Transmission speed	10/100 Mbps
Transmission length	100 m (per segment)
Signal LEDs	Supply voltage, data transmission, error, link, activity
Interface	POF/PCF
No. of ports	2 (SC-RJ)
Transmission physics	POF-SCRJ
Transmission speed	100 Mbps (full duplex)
Transmission length	up to 100 m (depending on the fiber used)
Wavelength	650 nm

Function

Basic functions	Cut-through/store-and-forward switch complies with IEEE 802.3 2 priority classes in accordance with IEEE802.1 P, TCP/IP protocol, DCP capable, integrated web server function, PROFINET device.
Redundancy	MRP (Media Redundancy Protocol)
Supported browsers	Internet Explorer 5.5 or higher
PROFINET device function	PROFINET device
PROFINET specification	PROFINET-IO RT/IRT, Spec. 2.x
PROFINET conformance class	Conformance-Class C

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Status and diagnostic indicators	LEDs: US1, US2 (power supply), Fail (alarm contact), 3 LEDs per Ethernet port (Link, Activity, and FO status), and BF (Bus Fail)
Signal contact control voltage	24 V (typical)
Signal contact control current	typical

Network expansion parameters

Cascading depth	Line and star structure: As desired
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	18.5 V DC ... 30.2 V DC
Typical current consumption	235 mA (at U_S = 24 V DC)
Max. current consumption	235 mA
Current consumption	235 mA (at 24 V DC)

General

Mounting type	DIN rail
Type AX	Block design
Net weight	450 g
Housing material	Aluminum, transparently anodized
Material base plate	Die-cast aluminum, corrosion-resistant

Connection data

Connection method	Screw connection
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	2.5 mm²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Stripping length	7 mm

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Type of test	Shock in acc. with EN 60068-2-27/IEC 60068-2-27
Test result	Operation: 30g, 3 x in each space direction
Type of test	Shock in acc. with EN 60068-2-27/IEC 60068-2-27
	Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6

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Standards and Regulations

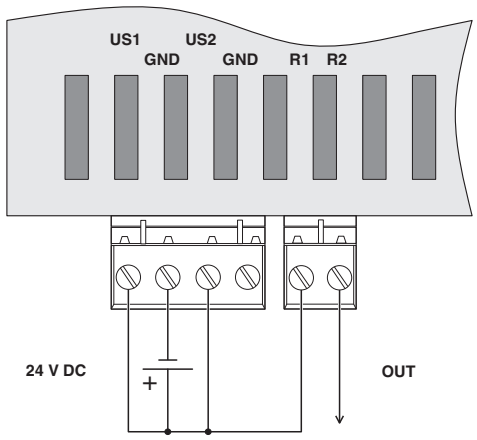
Test result	Operation/Storage/Transport: 5g, 150 Hz, Criterion 3
Type of test	Free fall in acc. with IEC 60068-2-32
Test result	0.5 m
Type of test	Vibration resistance according to IEC 61373, EN 61373
Test result	Category 1, Class B
Vibration (storage/transport)	5g, 10 Hz ... 150 Hz, in accordance with IEC 60068-2-6
Vibration (operation)	in accordance with IEC 60068-2-6: 5g, 10 Hz ... 150 Hz

Environmental Product Compliance

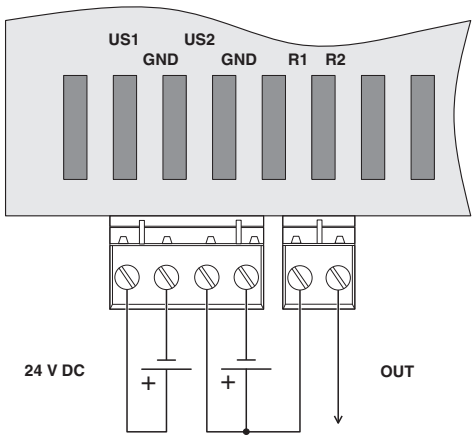
REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

Drawings

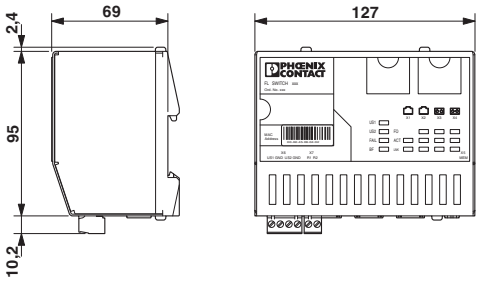
Connection diagram



Connection diagram



Dimensional drawing



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Classifications

eCl@ss

eCl@ss 10.0.1	19170401
eCl@ss 11.0	19170401
eCl@ss 4.0	27250500
eCl@ss 4.1	27250500
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 3.0	EC000734
ETIM 4.0	EC000734
ETIM 6.0	EC000734
ETIM 7.0	EC000734

UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172015
UNSPSC 12.01	43201410
UNSPSC 13.2	43222612
UNSPSC 18.0	43222612
UNSPSC 19.0	43222612
UNSPSC 20.0	43222612
UNSPSC 21.0	43222612

Approvals

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UL Listed / cUL Listed / PROFINET / cULus Listed

Ex Approvals

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Approvals

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
PROFINET			Z11868
cULus Listed			