FL SWITCH IRT 4TX - Industrial Ethernet Switch

2700689

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Managed Switch IRT series, 4 RJ45 ports 10/100 Mbps, degree of protection: IP20, Ambient temperature (operation): -25 °C ... 60 °C, Supply voltage range: 19 V DC ... 30 V DC, PROFINET Conformance Class C

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

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

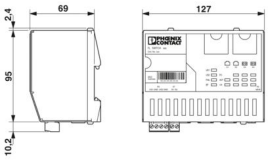
ELEKTROGERÄTE RÜCKNAHME

Commercial data

Item number	2700689
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DNN124
Product key	DNN124
GTIN	4046356651479
Weight per piece (including packing)	526.04 g
Weight per piece (excluding packing)	450 g
Customs tariff number	85176200
Country of origin	DE

Technical data

Dimensions

Dimensional drawing	
Width	127 mm
Height	95 mm
Depth	69 mm

Notes

Note on application

Note on application	Only for industrial use

Material specifications

Color (Housing)	Steel/stainless steel color
Material base plate	Die-cast aluminum, corrosion-resistant
Housing material	Aluminum, transparently anodized

Mounting

Mounting type	DIN rail mounting

Interfaces

Ethernet

Connection method	RJ45
Transmission speed	10/100 Mbps
Transmission physics	Copper
Transmission length	100 m (per segment)
Signal LEDs	Supply voltage, data transmission, error, link, activity
No. of channels	4 (RJ45 ports)

Output data

Signal contact

Control voltage	24 V (typical)
Control current	typical

Product properties

Product type	Switch
Product family	Managed Switch IRT
Type	Stand-alone

MTTF	362.73 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	218.23 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%)
	37.87 Years (SN 29500 standard, temperature 60°C, operating cycle 100%)

Switch functions

Supported browsers	Internet Explorer 5.5 or higher
Signal contact control voltage	24 V (typical)
Signal contact control current	typical
PROFINET conformance class	Conformance Class C
PROFINET device function	PROFINET device
PROFINET specification	PROFINET-IO RT/IRT, Spec. 2.x
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)
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 functions	MRP (Media Redundancy Protocol)

Electrical properties

Current consumption	165 mA (at 24 V DC)
Local diagnostics	US1/2 Supply voltage US1, US2 Green LED
	FAIL Div. LED red
	LINK Link status Green LED
	ACT Receiving/sending telegrams Green LED
	BF Bus errors LED red
Maximum power dissipation for nominal condition	3.96 W
Test section	24 V supply / functional ground 500 V DC 1 min
	Ethernet interface/all other potentials 2.25 kV DC 1 min
Transmission medium	Copper

Supply

Supply voltage (DC)	24 V DC (redundant)
Supply voltage range	18.5 V DC ... 30.2 V DC
Power supply connection	Via COMBICON, max. conductor cross-section 2.5 mm²
Residual ripple	3.6 V_{PP} (within the permitted voltage range)
Max. current consumption	165 mA
Typical current consumption	165 mA (at U_S = 24 V DC)
Current consumption	165 mA (at 24 V DC)

Supply: Module electronics

Supply voltage	24 V DC
Supply voltage range	18 V DC ... 32 V DC (including ripple)

Connection data

Connection method	Screw connection
pluggable	yes
Conductor cross-section, rigid	0.2 mm² ... 2.5 mm²
Conductor cross-section, flexible	0.2 mm² ... 2.5 mm²
Conductor cross-section AWG	24 ... 12
Stripping length	7 mm

Environmental and real-life conditions

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)
Vibration (operation)	in accordance with IEC 60068-2-6: 5g, 10 Hz ... 150 Hz
Air pressure (operation)	86 kPa ... 108 kPa (2000 m above mean sea level)
Air pressure (storage/transport)	66 kPa ... 108 kPa (3500 m above sea level)

EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Conformance with EMC directives	EN 55022 (emitted interference) Class A
	EN 61000-4-2 (ESD) Criterion A
	EN 61000-4-3 (electromagnetic fields) Criterion A, 10 V/m
	EN 61000-4-5 (surge) Criterion B
	EN 61000-4-4 (EFT burst) Criterion A, 2.2 kV
	EN 61000-4-6 EN 61000-4-6 (line noise immunity) Criterion A, Field intensity: 10 V/m
	EN 61000-4-3 (electromagnetic fields) EN 61000-4-3 (electromagnetic fields) Criterion A, 10 V/m
	60950-1

System properties

System requirements

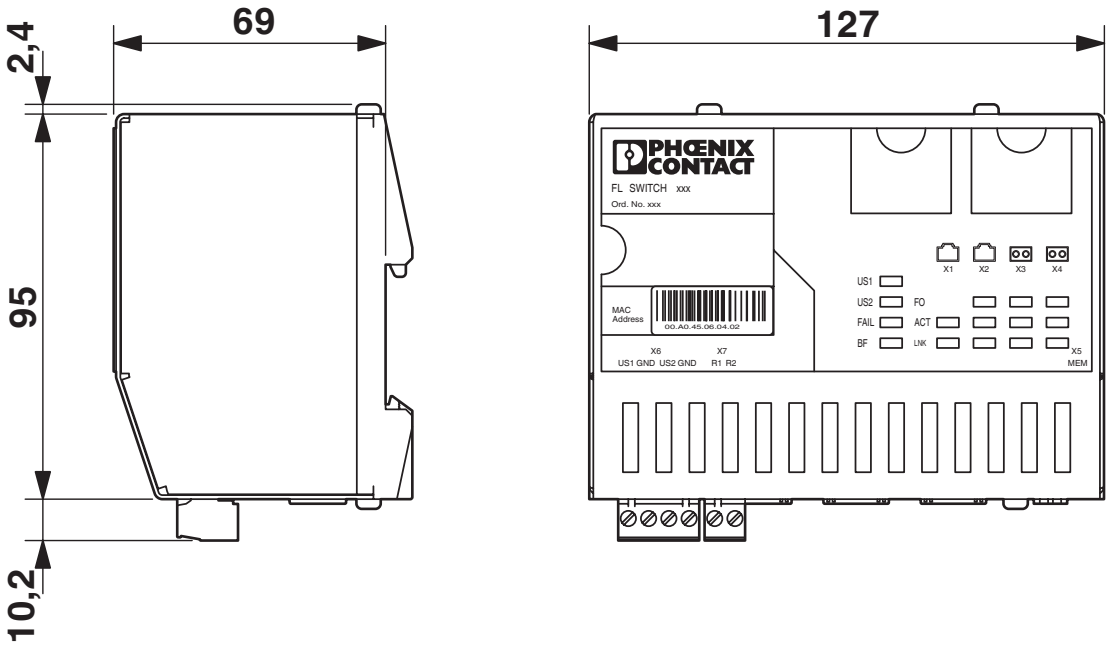
Supported browsers	Internet Explorer 5.5 or higher

Signaling

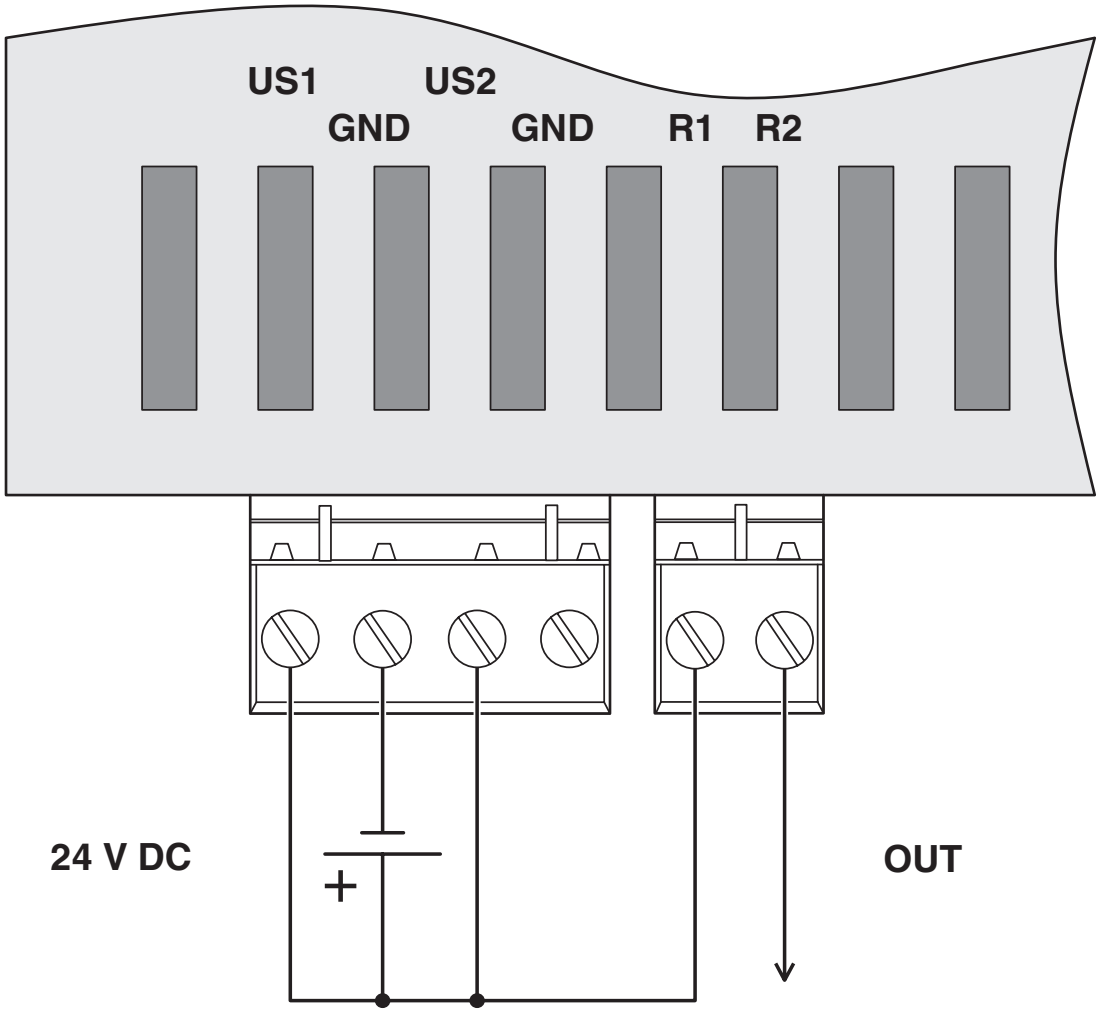
Status display	LEDs: US1, US2 (power supply), Fail (alarm contact), 3 LEDs per Ethernet port (Link, Activity, and FO status), and BF (Bus Fail)

Drawings

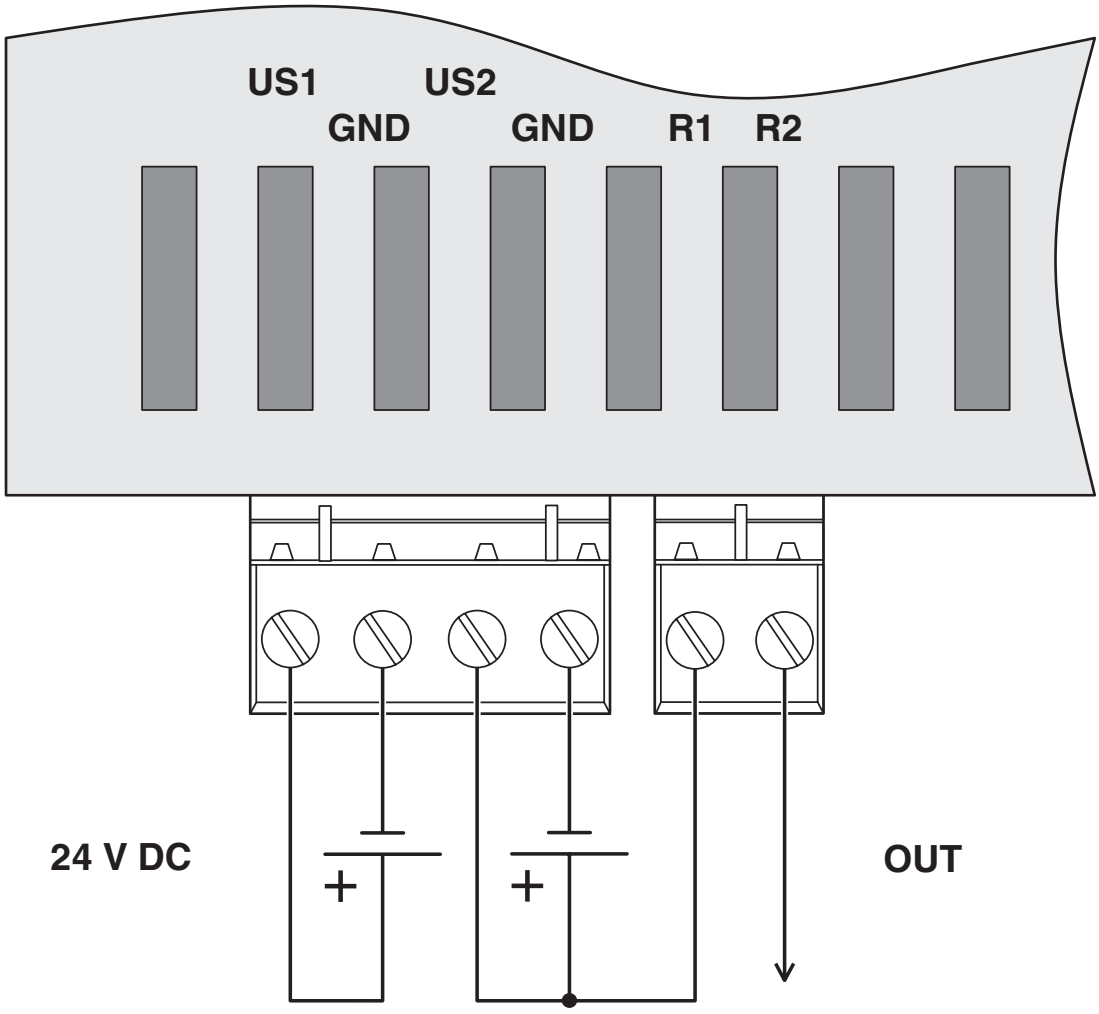
Dimensional drawing



Connection diagram



Connection diagram



Approvals

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UL Listed
Approval ID: E140324

cUL Listed
Approval ID: E140324

PROFINET
Approval ID: Z11869

Classifications

ECLASS

ECLASS-13.0	19170401
ECLASS-15.0	19170401

ETIM

ETIM 10.0	EC000734

UNSPSC

UNSPSC 21.0	43222600

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-50
	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	5104733a-b394-4758-a839-3a7cdbead90a

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