

Industrial Ethernet Switch - FL SWITCH IRT 4TX



2700689

<https://www.phoenixcontact.com/us/products/2700689>

Please be informed that the data shown in this PDF document is generated from our Online Catalog. Please find the complete data in the user documentation. Our General Terms of Use for Downloads are valid.

Ethernet switch, four ports in RJ45 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

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

Commercial Data

Item number	2700689
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Sales Key	C23
Product Key	DNN124
Catalog Page	Page 324 (C-6-2019)
GTIN	4046356651479
Weight per Piece (including packing)	615 g
Weight per Piece (excluding packing)	450 g

Industrial Ethernet Switch - FL SWITCH IRT 4TX



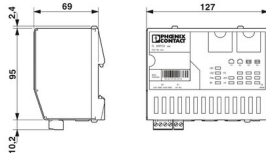
2700689

<https://www.phoenixcontact.com/us/products/2700689>

Customs tariff number	85176200
Country of origin	DE

Technical Data

Dimensions

Dimensional drawing	
Width	127 mm
Height	95 mm
Depth	69 mm

Notes

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
----------	---

Material specifications

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)

Product properties

Type	Stand-alone
Product type	Switch

Switch functions

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.
Signal contact control voltage	24 V (typical)
Signal contact control current	typical

2700689

<https://www.phoenixcontact.com/us/products/2700689>

PROFINET conformance class	Conformance-Class C
PROFINET device function	PROFINET device
PROFINET specification	PROFINET-IO RT/IRT, Spec. 2.x
Redundancy	MRP (Media Redundancy Protocol)
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)
Supported browsers	Internet Explorer 5.5 or higher

Security functions

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.
-----------------	---

Electrical properties

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	Between the Ethernet ports 1500 V AC 1 min.
	24 V supply (US) / FE 500 V 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 mm ²
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)

Function

Signal contact control voltage	24 V (typical)
Signal contact control current	typical

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
Conductor cross section, rigid	0.2 mm ² ... 2.5 mm ²
Conductor cross section, flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 12

2700689

<https://www.phoenixcontact.com/us/products/2700689>

Stripping length	7 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)
Vibration (operation)	in accordance with IEC 60068-2-6: 5g, 10 Hz ... 150 Hz
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)

EMC data

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
Electromagnetic compatibility	60950-1
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU

LED signaling

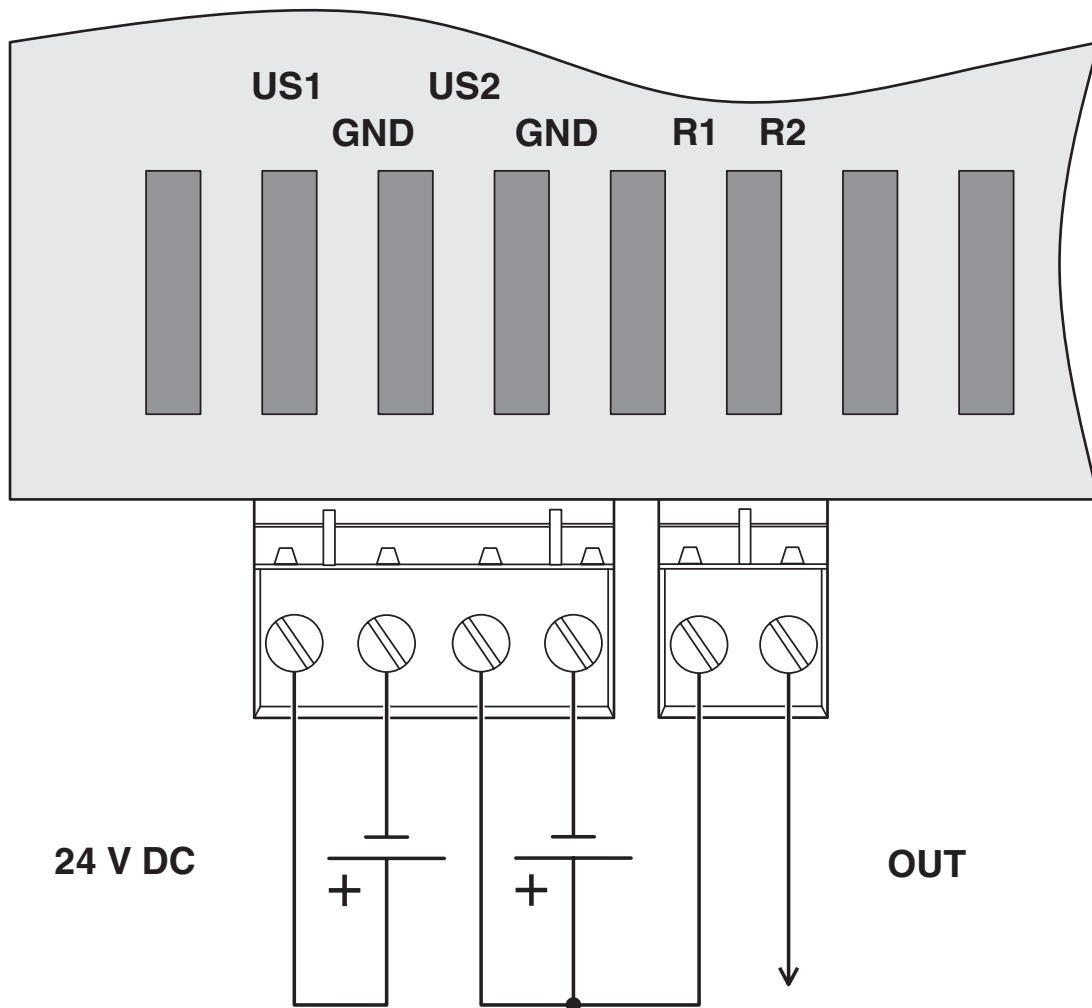
Status display	LEDs: US1, US2 (power supply), Fail (alarm contact), 3 LEDs per Ethernet port (Link, Activity, and FO status), and BF (Bus Fail)
----------------	--

2700689

<https://www.phoenixcontact.com/us/products/2700689>

Drawings

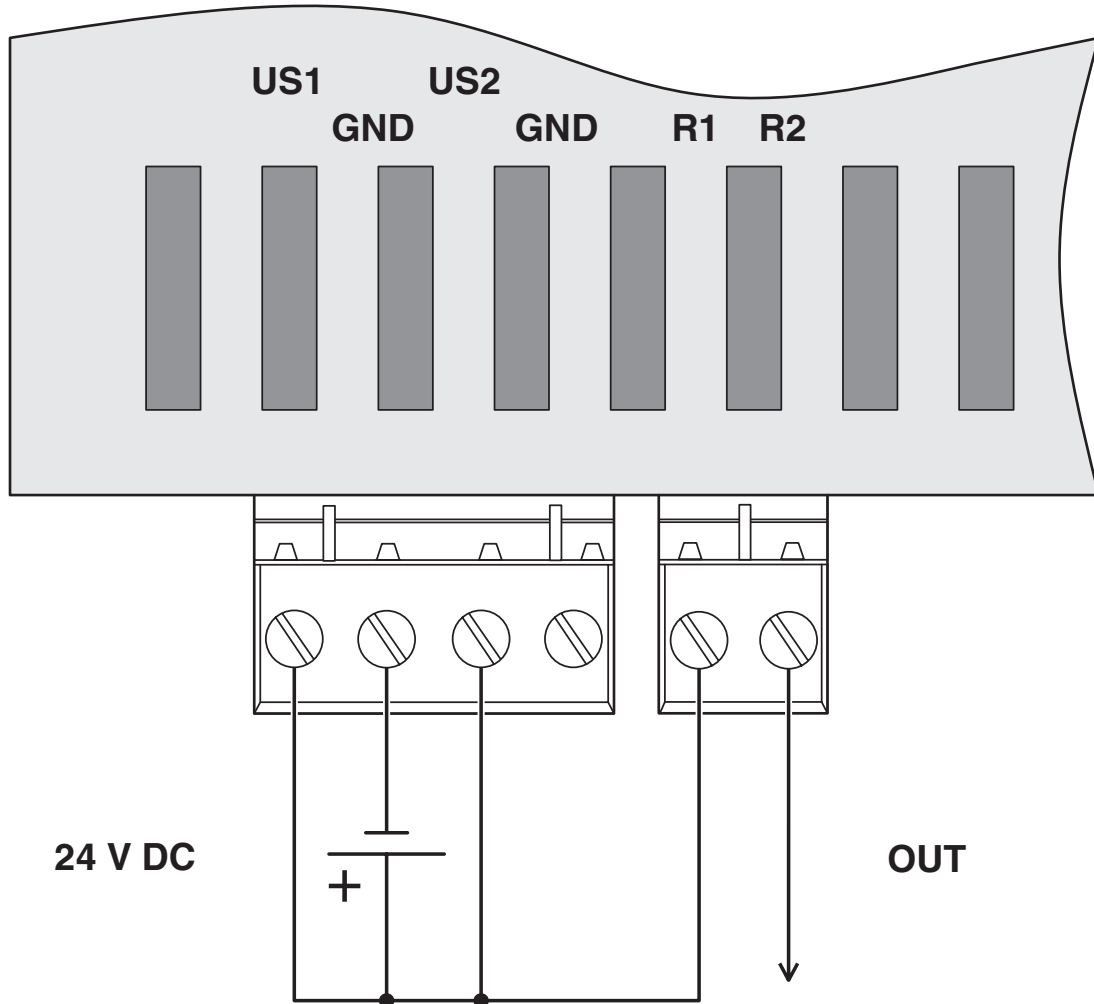
Connection diagram



2700689

<https://www.phoenixcontact.com/us/products/2700689>

Connection diagram



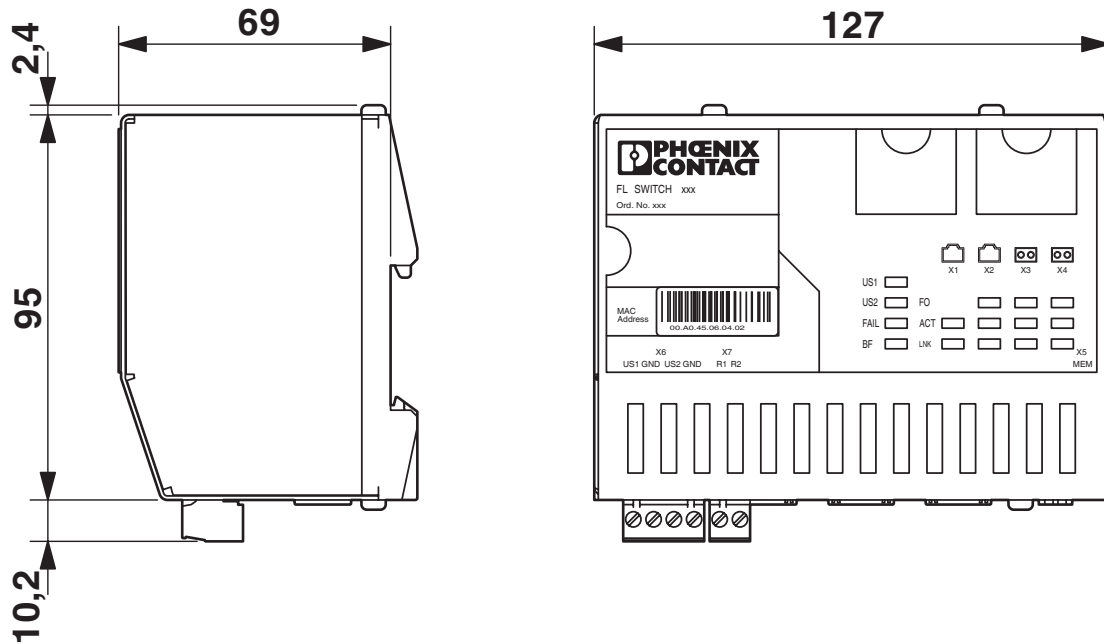
Industrial Ethernet Switch - FL SWITCH IRT 4TX



2700689

<https://www.phoenixcontact.com/us/products/2700689>

Dimensional drawing



Industrial Ethernet Switch - FL SWITCH IRT 4TX



2700689

<https://www.phoenixcontact.com/us/products/2700689>

Approvals



UL Listed

Approval ID: FILE E 140324



cUL Listed

Approval ID: FILE E 140324

PROFINET

Approval ID: Z11869

cULus Listed

Industrial Ethernet Switch - FL SWITCH IRT 4TX



2700689

<https://www.phoenixcontact.com/us/products/2700689>

Classifications

ECLASS

ECLASS-9.0	19170106
ECLASS-10.0.1	19170401
ECLASS-11.0	19170401

ETIM

ETIM 8.0	EC000734
----------	----------

UNSPSC

UNSPSC 21.0	43222600
-------------	----------

Industrial Ethernet Switch - FL SWITCH IRT 4TX



2700689

<https://www.phoenixcontact.com/us/products/2700689>

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

Industrial Ethernet Switch - FL SWITCH IRT 4TX



2700689

<https://www.phoenixcontact.com/us/products/2700689>

Accessories

Configuration memory

Configuration memory - FL MEM PLUG - 2891259

<https://www.phoenixcontact.com/us/products/2891259>



Exchangeable configuration memory of the device settings for simple device exchange and set-up

Power supply unit

Power supply unit - QUINT-PS/1AC/24DC/ 5 - 2866750

<https://www.phoenixcontact.com/us/products/2866750>



Primary-switched power supply unit, QUINT POWER, Pluggable screw connection, DIN rail mounting, SFB Technology (Selective Fuse Breaking), input: 1-phase, output: 24 V DC / 5 A

Industrial Ethernet Switch - FL SWITCH IRT 4TX



2700689

<https://www.phoenixcontact.com/us/products/2700689>

Configuration memory

Configuration memory - FL MEM PLUG/MRM - 2891275

<https://www.phoenixcontact.com/us/products/2891275>



Exchangeable configuration memory of the device settings for simple device exchange and set-up. In addition, the Media Redundancy Manager (MRM) license for use is stored within the Media Redundancy protocol (MRP).

Patch cable

Patch cable - FL CAT5 PATCH 0,5 - 2832263

<https://www.phoenixcontact.com/us/products/2832263>



Patch cable, CAT5, assembled, 0.5 m

Industrial Ethernet Switch - FL SWITCH IRT 4TX



2700689

<https://www.phoenixcontact.com/us/products/2700689>

Patch cable

Patch cable - FL CAT5 PATCH 1,0 - 2832276

<https://www.phoenixcontact.com/us/products/2832276>

Patch cable, CAT5, assembled, 1 m



Patch cable

Patch cable - FL CAT5 PATCH 2,0 - 2832289

<https://www.phoenixcontact.com/us/products/2832289>

Patch cable, CAT5, assembled, 2 m



Industrial Ethernet Switch - FL SWITCH IRT 4TX



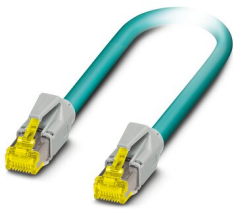
2700689

<https://www.phoenixcontact.com/us/products/2700689>

Patch cable

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

<https://www.phoenixcontact.com/us/products/1411854>

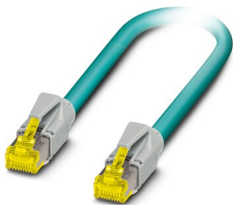


Patch cable, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6_A, cable outlet: straight, Ethernet

Patch cable

Patch cable - NBC-R4AC/10G-R4AC/10G-94F/2,0 - 1408360

<https://www.phoenixcontact.com/us/products/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

Industrial Ethernet Switch - FL SWITCH IRT 4TX



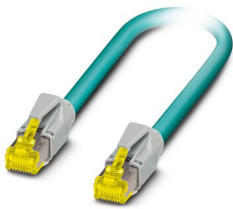
2700689

<https://www.phoenixcontact.com/us/products/2700689>

Patch cable

Patch cable - NBC-R4AC/10G-R4AC/10G-94F/3,0 - 1408365

<https://www.phoenixcontact.com/us/products/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

Patch cable

Patch cable - NBC-R4AC/1,0-93B/R4AC - 1408968

<https://www.phoenixcontact.com/us/products/1408968>



Patch cable, degree of protection: IP20, cable length: 1 m, number of positions: 4, 100 Mbps, CAT5, material: PA 6.6, PROFINET

Industrial Ethernet Switch - FL SWITCH IRT 4TX



2700689

<https://www.phoenixcontact.com/us/products/2700689>

Patch cable

Patch cable - NBC-R4AC/2,0-93B/R4AC - 1408969

<https://www.phoenixcontact.com/us/products/1408969>



Patch cable, degree of protection: IP20, cable length: 2 m, number of positions: 4, 100 Mbps, CAT5, material: PA 6.6, PROFINET

Patch cable

Patch cable - NBC-R4AC/5,0-93B/R4AC - 1408970

<https://www.phoenixcontact.com/us/products/1408970>



Patch cable, degree of protection: IP20, cable length: 5 m, number of positions: 4, 100 Mbps, CAT5, material: PA 6.6, PROFINET

Phoenix Contact 2022 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com