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Ethernet Switch, with four push-pull 10/100 Mbps RJ45 ports for PROFINET RT/IRT, in degree


## 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

- IP65 housing
- Cut-through switching
- PN IO device
- MRP (client and manager)
- SNMP

Commercial Data

| Order Key | 2700694 |
| :--- | :--- |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales Key | DNN |
| GTIN | 4055626740171 |
| Weight per Piece (including packing) | $2,111.0 \mathrm{GRM}$ |
| Weight per Piece (excluding packing) | $2,100.0$ GRM |
| Customs tariff number | 85176200 |
| Country of origin | DE |

## Switch - FL SWITCH IRT IP 4TX 2700694

https://www.phoenixcontact.com/in/products/2700694

## Technical Data

## Dimensions

| Width | 176 mm |
| :--- | :--- |
| Height | 112 mm |
| Depth | 99 mm |
| Drill hole spacing | 155 mm |

Notes

Utilization restriction

EMC note

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

## Material specifications

Housing material Zinc die-cast, surface bronzed and nickel-plated

Mounting
Mounting type Wall mounting

Interfaces

| Ethernet | RJ45 |
| :--- | :--- |
| Connection method | $10 / 100 \mathrm{Mbps}$ |
| Transmission speed | Copper |
| Transmission physics | 100 m (per segment) |
| Transmission length | Supply voltage, data transmission, error, link, activity |
| Signal LEDs | 4 (RJ45 ports) |
| No. of channels |  |

Product properties

| Type | Stand-alone |
| :--- | :--- |
| Switch functions | Cut-through/store-and-forward switch complies with IEEE 802.3 <br> priority classes in accordance with IEEE802.1 P, TCP/IP <br> protocol, DCP capable, integrated web server function, <br> PROFINET device. |
| Basic functions | 24 V |
| Signal contact control voltage | Conformance-Class $\mathbf{C}$ |
| PROFINET conformance class | PROFINET device |
| PROFINET device function | PROFINET-IO RT/IRT, Spec. 2.x |
| PROFINET specification | MRP (Media Redundancy Protocol) |

Electrical properties

## Switch - FL SWITCH IRT IP 4TX 2700694

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| 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 | 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 $\mathrm{V}_{\mathrm{PP}}$ (within the permitted voltage range) |
| Max. current consumption | 165 mA |
| Typical current consumption | $165 \mathrm{~mA}\left(\right.$ at $\left.\mathrm{U}_{\mathrm{S}}=24 \mathrm{VDC}\right)$ |
| Current consumption | 165 mA (at 24 V DC) |
| Function |  |
| Signal contact control voltage | 24 V |
| 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 | $0.2 \mathrm{~mm}^{2} \ldots 2.5 \mathrm{~mm}^{2}$ |
| Conductor cross section, flexible | $0.2 \mathrm{~mm}^{2} \ldots 2.5 \mathrm{~mm}^{2}$ |
| Conductor cross section AWG | $24 \ldots 12$ |
| Stripping length | 7 mm |

Ambient conditions

## Degree of protection

Ambient temperature (operation)
Ambient temperature (storage/transport)
Permissible humidity (operation)
Permissible humidity (storage/transport)
Vibration (operation)
Air pressure (operation)
Air pressure (storage/transport)

IP67
$-25^{\circ} \mathrm{C} \ldots 60^{\circ} \mathrm{C}$
$-40{ }^{\circ} \mathrm{C} . . .85^{\circ} \mathrm{C}$
5 \% ... 95 \% (non-condensing)
$5 \%$... 95 \% (non-condensing)
in accordance with IEC 60068-2-6: 5g, $10 \mathrm{~Hz} . . .150 \mathrm{~Hz}$
$86 \mathrm{kPa} . .108 \mathrm{kPa}$ (2000 m above sea level)
$66 \mathrm{kPa} . . .108 \mathrm{kPa}$ ( 3500 m above sea level)

## EMC data

## Switch - FL SWITCH IRT IP 4TX 2700694

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|  | EN 61000-4-5 (surge) Criterion B |
| :---: | :---: |
|  | EN 61000-4-3 (electromagnetic fields) 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: $10 \mathrm{~V} / \mathrm{m}$ |
|  | EN 61000-4-3 (electromagnetic fields) EN 61000-4-3 (electromagnetic fields) Criterion A, $10 \mathrm{~V} / \mathrm{m}$ |
|  | 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) |

## Switch - FL SWITCH IRT IP 4TX 2700694

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## Environmental Product Compliance

| REACh SVHC | Lead $7439-92-1$ |
| :--- | :--- |
| China RoHS | Environmentally Friendly Use Period $=50$ years |
| China RoHS | For details about hazardous substances go to tab "Downloads", <br> Category "Manufacturer's declaration" |

## Switch - FL SWITCH IRT IP 4TX - <br> 2700694

https://www.phoenixcontact.com/in/products/2700694

## Accessories

Configuration memory
Configuration memory - FL MEM PLUG - 2891259


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

## Configuration memory

Configuration memory - FL MEM PLUG/MRM - 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).

## Switch - FL SWITCH IRT IP 4TX - <br> 2700694

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Data plug
Data plug - VS-PPC-C1-RJ45-MNNA-PG9-4Q5-1608100


RJ45 connector, degree of protection: IP65/IP67, number of positions: 4, 100 Mbps, CAT5 (IEC 11801:2002), material: Zinc die-cast, connection method: IDC fast connection, connection cross section: AWG 26-22, cable outlet: straight, color: silver, PROFINET

## Data plug

Data plug - VS-PPC-C2-MSTB-MNNA-P13-A5-SP - 1608074


Power connector, degree of protection: IP65, number of positions: 5, material Zinc die-cast, connection method: Spring-cage connection, connection cross section: AWG 18-13, cable outlet: straight, color: silver

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