

# Industrial Ethernet Switch - FL SWITCH 4012T-2GT-2FX ST - 2891161

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's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Managed Ethernet switch with twelve RJ45 ports at 10/100 Mbps, two RJ45 ports at 10/100/1000 Mbps and two ST fiber optic ports at 100 Mbps. Wide operating temperature of -40 °C ... +75 °C.

## Product Description

FL SWITCH 4000 managed industrial Ethernet switches combine Gigabit interfaces with extensive network performance for the most demanding applications. Security features with complete IEEE redundancy (STP/RSTP/MST) and 15 ms recovery time extended ring redundancy optimize network uptime. Unique web customization provides a simplified user interface for today's applications and scalable functionality for future needs. A comprehensive mix of 10/100 Mbps and Gigabit fiber optic connections combine performance with installed cost savings.

## Product Features

- Unique cleanup function hides unused configuration pages, reducing complexity, maintenance and startup times
- Secure web-based and SNMP-based management
- Extensive web diagnostics with configurable LED and remote alarm contacts
- Twelve 10/100 Mbps ports for device connections, two Gigabit RJ45 ports for network trunk lines, and two 100 Mbps multi-mode fiber optic SC interfaces for remote connections
- -40 to 75°C ambient temperature



## Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	1.0 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
-------------------------	---

### Dimensions

Width	66 mm
Height	173 mm

# Industrial Ethernet Switch - FL SWITCH 4012T-2GT-2FX ST - 2891161

## Technical data

### Dimensions

Depth	140 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)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)
Air pressure (operation)	57 kPa ... 108 kPa (up to 4850 m above mean sea level)
Air pressure (storage/transport)	57 kPa ... 108 kPa (up to 4850 m above mean sea level)

### Interfaces

Interface 1	Ethernet (RJ45)
No. of ports	12 (RJ45 ports)
Connection method	RJ45
Note on connection method	Auto negotiation and autocrossing
Transmission physics	Ethernet in RJ45 twisted pair
Transmission speed	10/100 MBit/s
Transmission length	100 m
Interface 2	Fiber optic interface
No. of ports	2 (ST multi-mode)
Connection method	ST
Transmission physics	multi-mode fiberglass
Transmission speed	100 MBit/s (full duplex)
Interface 4	Ethernet (RJ45)
Connection method	RJ45
Note on connection method	Auto negotiation and autocrossing
Transmission physics	Ethernet in RJ45 twisted pair
Transmission speed	10/100/1000 MBit/s
Transmission length	100 m

### Function

Basic functions	Managed switch
Status and diagnostic indicators	LEDs: U <sub>S1</sub> , U <sub>S2</sub> (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

# Industrial Ethernet Switch - FL SWITCH 4012T-2GT-2FX ST - 2891161

## Technical data

### Supply voltage

Supply voltage	24 V DC (redundant)
Residual ripple	3.6 V <sub>PP</sub> (within the permitted voltage range)
Supply voltage range	12 V DC ... 48 V DC
Typical current consumption	474 mA (24 V DC)

### General

Mounting type	NS 35 (IEC 60715) DIN rail
Type AX	Block design
Net weight	1285 g
Housing material	Aluminum

### Connection data

Connection method	Pluggable COMBICON screw connections,
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Stripping length	7 mm

### Standards and Regulations

Developed in acc. with standard	IEC 61000-6.2
Test standard	IEC 61000-4-2 (ESD)
Test result	Criterion B
Test standard	IEC 61000-4-3 (immunity to radiated interference)
Test result	Criterion A
Test standard	IEC 61000-4-4 (burst)
Test result	Criterion A
Test standard	IEC 61000-4-5 (surge)
Test result	Criterion B
Test standard	IEC 61000-4-6 (immunity to conducted interference)
Test result	Criterion A
Test standard	IEC 61000-4-8 (immunity to magnetic fields)
Test result	Criterion A
Test standard	EN 55022 (emitted interference)
Test result	Class A
Test section	Supply voltage/functional earth ground 500 V 1 min.
Type of test	Shock in acc. with EN 60068-2-27/IEC 60068-2-27

# Industrial Ethernet Switch - FL SWITCH 4012T-2GT-2FX ST - 2891161

## Technical data

### Standards and Regulations

Test result	30g, 11 ms half-sine shock pulse
Type of test	Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6
Test result	5g, 150 Hz, Criterion 3
Type of test	Free fall in acc. with IEC 60068-2-32
Test result	1 m
Noise emission	EN 61000-6-4
Noise immunity	EN 61000-6-2:2005

## Classifications

### eCl@ss

eCl@ss 5.1	19030117
eCl@ss 6.0	19170106
eCl@ss 8.0	19170106

### ETIM

ETIM 4.0	EC000734
ETIM 5.0	EC000734

## Approvals

### Approvals

---

#### Approvals

UL Listed / cUL Listed / EAC / cULus Listed

---

#### Ex Approvals

UL Listed / cUL Listed / cULus Listed

---

#### Approvals submitted

---

### Approval details

UL Listed
-----------

## Industrial Ethernet Switch - FL SWITCH 4012T-2GT-2FX ST - 2891161

### Approvals

cUL Listed

EAC

cULus Listed 