

# FL SWITCH 1004N-FX - Industrial Ethernet Switch



1084159

<https://www.phoenixcontact.com/in/products/1084159>

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, 4 TP RJ45 ports, 1 FO port, 100 Mbps full duplex in SC-D format, automatic detection of data transmission speed of 10 or 100 Mbps (RJ45), autocrossing function

## Your advantages

- RJ45 ports support a transmission speed of 10/100 Mbps
- QoS-prioritized (Quality of Service) messages
- Local diagnostic indicators with LEDs
- PROFINET PTCP filter for reliable communication on PROFINET networks
- Enhanced traffic prioritization for automation protocols
- Energy-efficient Ethernet in accord. with IEEE 802.3az
- PROFINET conformance Class A for real-time data exchange, alarms, and diagnostics
- Auto negotiation and autocrossing detection simplifies installation and setup

## Commercial Data

Item number	1084159
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	DNN
Product Key	DNN116
GTIN	4055626821559
Weight per Piece (including packing)	217 g
Weight per Piece (excluding packing)	136 g
Customs tariff number	85176200
Country of origin	TW

## Technical Data

### Dimensions

Width	22.5 mm
Height	117 mm
Depth	84 mm

### Notes

#### Utilization restriction

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

### Material specifications

Housing material	Polycarbonate fiber reinforced
------------------	--------------------------------

### Mounting

Mounting type	DIN rail mounting
---------------	-------------------

### Interfaces

#### Ethernet (RJ45)

Number of interfaces	4
Connection method	RJ45
Note on the connection method	Auto negotiation and autocrossing
Transmission speed	10/100 Mbps
Transmission physics	Ethernet in RJ45 twisted pair
Transmission length	100 m (per segment)
Signal LEDs	Data receive, link status
No. of channels	4 (RJ45 ports)

#### Ethernet FO

Number of interfaces	1
Connection method	SC
Transmission speed	100 Mbps (full duplex)
Transmit capacity, minimum	-20 dBm
Transmit capacity, maximum	-14 dBm
Minimum receiver sensitivity	-31 dBm
Maximum receiver sensitivity	0 dBm
Transmission physics	multi-mode fiberglass
Transmission length	8 km (fiberglass with F-G 62.5/125 0.7 dB/km F1000) 4.29 km (fiberglass with F-G 50/125 0.7 dB/km F1200)
Wavelength	1300 nm
No. of channels	1 (SC multi-mode)

### Product properties

# FL SWITCH 1004N-FX - Industrial Ethernet Switch



1084159

<https://www.phoenixcontact.com/in/products/1084159>

Product type	Switch
Product family	Unmanaged Switch 1000
MTTF	115.1 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)
	427.5 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	279.5 Years (Telcordia standard, 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day))

## Switch functions

Basic functions	Unmanaged switch
	Autonegotiation
	Store and Forward switching mode
PROFINET conformance class	Conformance-Class A
MAC address table	2k
Status and diagnostic indicators	LEDs: U <sub>S</sub> , link and activity per port
Additional functions	100 BASE-TX/100BASE-FX (IEEE 802.3u)
	Quality of Service (QoS) prioritization (IEEE 802.1p)
	Energy-efficient Ethernet (IEEE 802.3az)
	10Base-T (IEEE 802.3)

## Security functions

Basic functions	Unmanaged switch
	Autonegotiation
	Store and Forward switching mode

## Electrical properties

### Supply

Supply voltage (DC)	24 V DC
Supply voltage (AC)	24 V AC (50/60 Hz)
Supply voltage range	9 V DC ... 32 V DC
	18 V AC ... 30 V AC (50/60 Hz)
Power supply connection	Via COMBICON, max. conductor cross section 2.5 mm <sup>2</sup>
Residual ripple	3.6 V <sub>PP</sub> (within the permitted voltage range)
Max. current consumption	230 mA (at 9 V DC)
Typical current consumption	59 mA (at 24 V DC)

## Connection data

Connection method	Push-in spring connection
Conductor cross section, rigid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section, flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section AWG	24 ... 12
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Stripping length	10 mm

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP30
Ambient temperature (operation)	-10 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	2000 m (maximum)
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)
Shock (operation)	30g (EN 60068-2-27)
Vibration (operation)	in acc. with IEC 60068-2-6: 5g, 150 Hz
Air pressure (operation)	79 kPa ... 108 kPa up to 2000 m above mean sea level (Without derating)
Air pressure (storage/transport)	79 kPa ... 108 kPa up to 2000 m above mean sea level (Without derating)

## Approvals

### Conformity/Approvals

UL, USA / Canada	UL 61010-1, UL 61010-2-201, UL 62368-1 Class I, Div. 2, Groups A, B, C, D, T4 Class I, Zone 2, Group IIC, T4
------------------	--

## System properties

### Functionality

Basic functions	Unmanaged switch
	Autonegotiation
	Store and Forward switching mode

## Signaling

Status display	LEDs: U <sub>S</sub> , link and activity per port
----------------	---

# FL SWITCH 1004N-FX - Industrial Ethernet Switch



1084159

<https://www.phoenixcontact.com/in/products/1084159>

## Approvals



**EAC**

Approval ID: RU D-DE.GB09.B.00312



**UL Listed**

Approval ID: FILE E 238705



**cUL Listed**

Approval ID: FILE E 238705



**cUL Listed**

Approval ID: FILE E 140403



**UL Listed**

Approval ID: FILE E 140403



**cUL Listed**

Approval ID: FILE E 196811



**UL Listed**

Approval ID: FILE E 196811

# FL SWITCH 1004N-FX - Industrial Ethernet Switch



1084159

<https://www.phoenixcontact.com/in/products/1084159>

## Classifications

### ECLASS

ECLASS-11.0	19170402
ECLASS-12.0	19170402
ECLASS-13.0	19170402

### ETIM

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

### UNSPSC

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

# FL SWITCH 1004N-FX - Industrial Ethernet Switch



1084159

<https://www.phoenixcontact.com/in/products/1084159>

## 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"

1084159

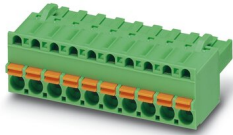
<https://www.phoenixcontact.com/in/products/1084159>

## Accessories

### FKCT 2,5/ 3-ST KMGY BD:US,GND - PCB connector

1087544

<https://www.phoenixcontact.com/in/products/1087544>



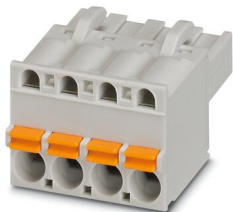
PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: light grey, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Socket, number of rows: 1, number of positions: 3, product range: FKCT 2,5/..-ST, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

---

### FKCT 2,5/ 3-ST KMGY - PCB connector

1998263

<https://www.phoenixcontact.com/in/products/1998263>



PCB connector, nominal cross section: 2.5 mm<sup>2</sup>, color: light grey, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Socket, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: FKCT 2,5/..-ST, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard



# FL SWITCH 1004N-FX - Industrial Ethernet Switch



1084159

<https://www.phoenixcontact.com/in/products/1084159>

## DT-LAN-CAT.6+ - Surge protection device

2881007

<https://www.phoenixcontact.com/in/products/2881007>



Surge protection in accordance with Class E<sub>A</sub> (CAT6<sub>A</sub>), for Gigabit Ethernet (up to 10 Gbps), token ring, FDDI/CDDI, ISDN, and DS1. Suitable for Power over Ethernet (PoE++ / 4PPoE) "Mode A" and "Mode B". RJ45 attachment plug with separate grounding cable and ground connection snap-on foot for NS 35 DIN rails.

---

## FL DIN-RAIL ADAPTER 22.5 - Mounting plate

1085485

<https://www.phoenixcontact.com/in/products/1085485>



The FL DIN-RAIL ADAPTER 22.5 is designed to allow products 22.5 mm wide to be mounted flush to a standard 35 mm DIN rail, in any orientation.

# FL SWITCH 1004N-FX - Industrial Ethernet Switch



1084159

<https://www.phoenixcontact.com/in/products/1084159>

## FL PANEL ADAPTER 22.5 - Mounting plate

1085488

<https://www.phoenixcontact.com/in/products/1085488>



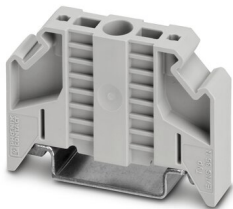
The FL PANEL ADAPTER 22.5 is designed to allow products 22.5 mm wide to be mounted flush to a panel, in any orientation.

---

## E/NS 35 N - End clamp

0800886

<https://www.phoenixcontact.com/in/products/0800886>



End clamp, width: 9.5 mm, color: gray

# FL SWITCH 1004N-FX - Industrial Ethernet Switch



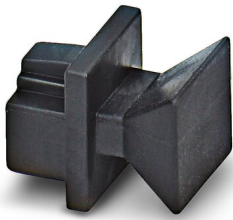
1084159

<https://www.phoenixcontact.com/in/products/1084159>

## FL RJ45 PROTECT CAP - Dust protection

2832991

<https://www.phoenixcontact.com/in/products/2832991>



Dust protection caps for RJ45 socket

---

## FL CAT5 PATCH 0,5 - Patch cable

2832263

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



Patch cable, CAT5, assembled, 0.5 m

# FL SWITCH 1004N-FX - Industrial Ethernet Switch



1084159

<https://www.phoenixcontact.com/in/products/1084159>

## FL CAT5 PATCH 1,0 - Patch cable

2832276

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

Patch cable, CAT5, assembled, 1 m



---

## FL CAT5 PATCH 2,0 - Patch cable

2832289

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

Patch cable, CAT5, assembled, 2 m



# FL SWITCH 1004N-FX - Industrial Ethernet Switch



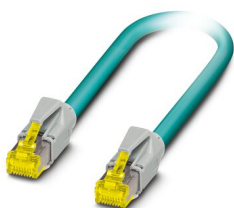
1084159

<https://www.phoenixcontact.com/in/products/1084159>

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

1411854

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



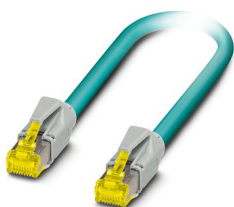
Patch cable, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6<sub>A</sub>, cable outlet: straight, Ethernet

---

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

1408360

<https://www.phoenixcontact.com/in/products/1408360>



Patch cable, CAT6<sub>A</sub>, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 2.0 m

# FL SWITCH 1004N-FX - Industrial Ethernet Switch



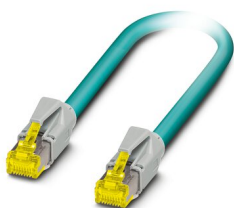
1084159

<https://www.phoenixcontact.com/in/products/1084159>

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

1408365

<https://www.phoenixcontact.com/in/products/1408365>



Patch cable, CAT6<sub>A</sub>, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 3.0 m

---

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

1408968

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



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

# FL SWITCH 1004N-FX - Industrial Ethernet Switch



1084159

<https://www.phoenixcontact.com/in/products/1084159>

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

1408969

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



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

---

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

1408970

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



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

# FL SWITCH 1004N-FX - Industrial Ethernet Switch



1084159

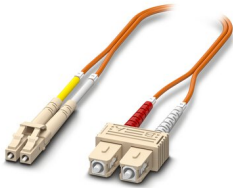
<https://www.phoenixcontact.com/in/products/1084159>

## FOC-LC:PA-SC:PA-OM2:D01/1 - FO patch cable

1115607

<https://www.phoenixcontact.com/in/products/1115607>

Multi-mode OM2 duplex jumper, LC-SC, UPC polishing, length 1 m



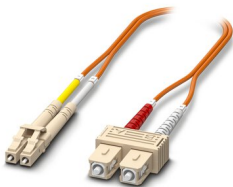
---

## FOC-LC:PA-SC:PA-OM2:D01/2 - FO patch cable

1115605

<https://www.phoenixcontact.com/in/products/1115605>

Multi-mode OM2 duplex jumper, LC-SC, UPC polishing, length 2 m





# FL SWITCH 1004N-FX - Industrial Ethernet Switch



1084159

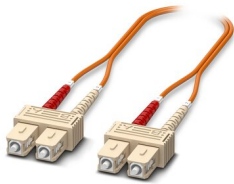
<https://www.phoenixcontact.com/in/products/1084159>

## FOC-SC:PA-SC:PA-OM2:D01/1 - FO patch cable

1115536

<https://www.phoenixcontact.com/in/products/1115536>

Multi-mode OM2 duplex jumper, SC-SC, UPC polishing, length 1 m



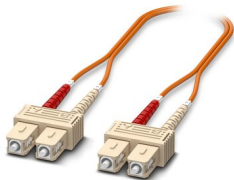
---

## FOC-SC:PA-SC:PA-OM2:D01/2 - FO patch cable

1115535

<https://www.phoenixcontact.com/in/products/1115535>

Multi-mode OM2 duplex jumper, SC-SC, UPC polishing, length 2 m



# FL SWITCH 1004N-FX - Industrial Ethernet Switch



1084159

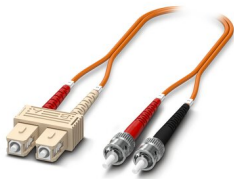
<https://www.phoenixcontact.com/in/products/1084159>

## FOC-ST:PA-SC:PA-OM2:D01/1 - FO patch cable

1115574

<https://www.phoenixcontact.com/in/products/1115574>

Multi-mode OM2 duplex jumper, ST-SC, UPC polishing, length 1 m



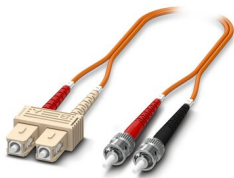
---

## FOC-ST:PA-SC:PA-OM2:D01/2 - FO patch cable

1115573

<https://www.phoenixcontact.com/in/products/1115573>

Multi-mode OM2 duplex jumper, ST-SC, UPC polishing, length 2 m



# FL SWITCH 1004N-FX - Industrial Ethernet Switch



1084159

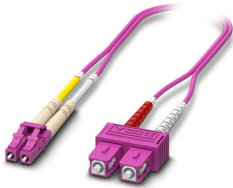
<https://www.phoenixcontact.com/in/products/1084159>

## FOC-LC:PA-SC:PA-OM4:D01/1 - FO patch cable

1115601

<https://www.phoenixcontact.com/in/products/1115601>

Multi-mode OM4 duplex jumper, LC-SC, UPC polishing, length 1 m



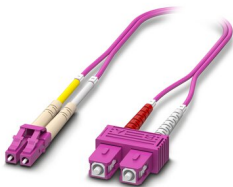
---

## FOC-LC:PA-SC:PA-OM4:D01/2 - FO patch cable

1115600

<https://www.phoenixcontact.com/in/products/1115600>

Multi-mode OM4 duplex jumper, LC-SC, UPC polishing, length 2 m



# FL SWITCH 1004N-FX - Industrial Ethernet Switch



1084159

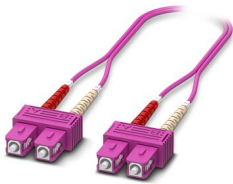
<https://www.phoenixcontact.com/in/products/1084159>

## FOC-SC:PA-SC:PA-OM4:D01/1 - FO patch cable

1115424

<https://www.phoenixcontact.com/in/products/1115424>

Multi-mode OM4 duplex jumper, SC-SC, UPC polishing, length 1 m



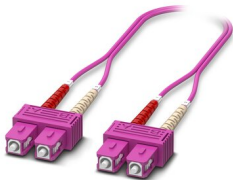
---

## FOC-SC:PA-SC:PA-OM4:D01/2 - FO patch cable

1115423

<https://www.phoenixcontact.com/in/products/1115423>

Multi-mode OM4 duplex jumper, SC-SC, UPC polishing, length 2 m



---

Phoenix Contact 2023 © - all rights reserved  
<https://www.phoenixcontact.com>

PHOENIX CONTACT (I) Pvt. Ltd.  
A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.1275.71420  
[info@phoenixcontact.co.in](mailto:info@phoenixcontact.co.in)