

FL SWITCH 1004N-FX ST - Industrial Ethernet Switch



1085179

<https://www.phoenixcontact.com/us/products/1085179>

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Ethernet switch, four RJ45 ports, one ST fiber port

Your advantages

- RJ45 ports support a transmission speed of 10/100 Mbps
- QoS-prioritized (Quality of Service) messages
- 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	1085179
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN20
Product key	DNN116
GTIN	4055626835105
Weight per piece (including packing)	216.96 g
Weight per piece (excluding packing)	134 g
Customs tariff number	85176200
Country of origin	TW

Technical data

Dimensions

Width	22.5 mm
Height	117 mm
Depth	84 mm

Notes

Note on application

Note on application	Only for industrial use
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Utilization restriction

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

Housing material	Polycarbonate fiber reinforced
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Mounting

Mounting type	DIN rail mounting
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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)
Input buffer	768 Kbits
Output buffer	768 Kbits

Ethernet FO

Number of interfaces	1
Connection method	ST
Transmission speed	100 Mbps (full duplex)
Transmit capacity, minimum	-20 dBm
Transmit capacity, maximum	-14 dBm
Minimum receiver sensitivity	-32 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)

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	5.71 km (fiberglass with F-G 50/125 0.7 dB/km F1200)
Wavelength	1300 nm
No. of channels	1 (ST multi-mode)

Product properties

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))
Basic functions	Unmanaged switch
	Autonegotiation
	Store and Forward switching mode

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 _S , 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

Maximum power dissipation for nominal condition	2.196 W (at 24 V DC)
Transmission medium	Copper
	FO

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 ²
Residual ripple	3.6 V _{pp} (within the permitted voltage range)

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Max. current consumption	244 mA (at 9 V DC)
Typical current consumption	60 mA (at 24 V DC)

Connection data

Connection technology

Connection name	Power supply
pluggable	yes

Power supply

Connection method	Push-in spring 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
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 2.5 mm ²
Conductor cross-section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 2.5 mm ²
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
FCC	Title 47 Part 15 Subpart B:2018 Class A

EMC data

Noise immunity	EN 61000-6-2:2019
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Noise emission

Standards/regulations	EN_61000-6-4:2019
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System properties

Functionality

Basic functions	Unmanaged switch
	Autonegotiation
	Store and Forward switching mode

Signaling

Status display	LEDs: U _S , link and activity per port
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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1085179>



EAC

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



KC

Approval ID: R-R-PCK-1085179



cULus Listed

Approval ID: E238705



cULus Listed

Approval ID: E140403



cUL Listed

Approval ID: E196811



UL Listed

Approval ID: E196811

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Classifications

ECLASS

ECLASS-13.0	19170402
ECLASS-15.0	19170402

ETIM

ETIM 9.0	EC000734
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UNSPSC

UNSPSC 21.0	43222600
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	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	baad7a33-4893-4c0f-8ccf-c9147dac659b

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Accessories

MVSTBW 2,5/ 3-ST-5,08 GY - PCB connector

1783685

<https://www.phoenixcontact.com/us/products/1783685>

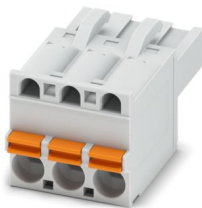


PCB connector, nominal cross section: 2.5 mm², color: gray, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Sn, contact connection type: Socket, number of potentials: 3, number of rows: 1, number of positions: 3, number of connections: 3, product range: MVSTBW 2,5/...-ST, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: -90 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting method: without, type of packaging: packed in cardboard

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

1998263

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



PCB connector, nominal cross section: 2.5 mm², color: light gray, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Sn, contact connection type: 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 method: without, type of packaging: packed in cardboard

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

2881007

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Surge protection in accordance with Class E_A (CAT6_A), for Gigabit Ethernet (up to 10 Gbps), token ring, FDDI/CDDI, ISDN, DS1. Suitable for Power over Ethernet (PoE++/4PPoE) "Mode A" and "Mode B". RJ45 intermediate plug with separate grounding cable and ground connection snap-on foot for NS 35 DIN rails. Products with similar requirements: DT-LAN-CAT.6A (2908726) und D-LAN-CAT.5-HC (2800763).

FL DIN-RAIL ADAPTER 22.5 - Mounting panel

1085485

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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.

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FL PANEL ADAPTER 22.5 - Mounting panel

1085488

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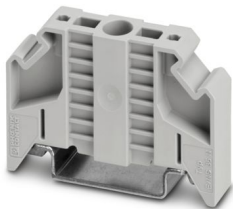


The FL PANEL ADAPTER 22.5 is designed to allow products 22.5 mm wide to be mounted flush to a panel, in any orientation.

E/NS 35 N - End bracket

0800886

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End clamp, width: 9.5 mm, color: gray

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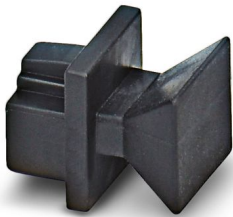
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FL RJ45 PROTECT CAP - Dust protection

2832991

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Dust protection caps for RJ45 socket

FL CAT5 PATCH 0,5 - Patch cable

2832263

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Patch cable, CAT5, assembled, 0.5 m

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FL CAT5 PATCH 1,0 - Patch cable

2832276

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Patch cable, CAT5, assembled, 1 m

FL CAT5 PATCH 2,0 - Patch cable

2832289

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Patch cable, CAT5, assembled, 2 m

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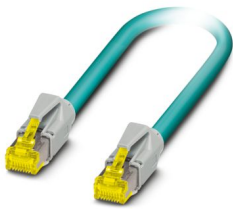
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NBC-R4AC-R4AC-IE8A/.../... - Patch cable

1411854

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

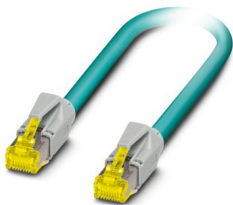


Patch cable, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6_A, cable outlet: straight, Ethernet

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

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

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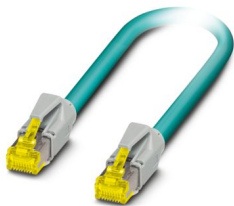
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NBC-R4AC/10G-R4AC/10G-94F/3,0 - Patch cable

1408365

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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

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

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, 1x4xAWG22/7, SF/TQ, green RAL 6018

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

1408969

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Patch cable, degree of protection: IP20, cable length: 2 m, number of positions: 4, 100 Mbps, CAT5, material: PA 6.6, PROFINET, 1x4xAWG22/7, SF/TQ, green RAL 6018

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

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, 1x4xAWG22/7, SF/TQ, green RAL 6018

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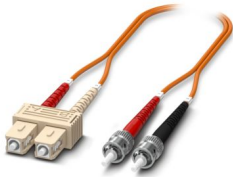
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FOC-ST:PA-SC:PA-OM2:D01/1 - FO patch cable

1115574

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

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

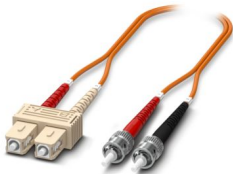


FOC-ST:PA-SC:PA-OM2:D01/2 - FO patch cable

1115573

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

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



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

1115560

<https://www.phoenixcontact.com/us/products/1115560>

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



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

1115557

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



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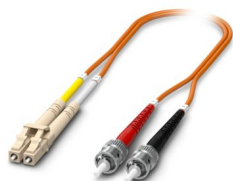
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FOC-LC:PA-ST:PA-OM2:D01/1 - Fiber optic cable

1115588

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

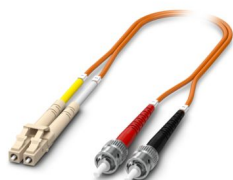


FOC-LC:PA-ST:PA-OM2:D01/2 - Fiber optic cable

1115587

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



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