FL SWITCH 1004N-FX SM - Industrial Ethernet Switch

1085214

https://www.phoenixcontact.com/us/products/1085214

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Unmanaged Switch 1000, 4 RJ45 ports 10/100 Mbps, 1 SC single mode 100 Mbps, PROFINET Conformance-Class A

Your advantages

- QoS-prioritized (Quality of Service) messages
- RJ45 ports support a transmission speed of 10/100 Mbps
- Local diagnostic indicators with LEDs
- Enhanced traffic prioritization for automation protocols
- PROFINET PTCP filter for reliable communication on PROFINET networks
- 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	1085214
Packing unit	1 pc
Sales Key	DN20
Product Key	DNN116
GTIN	4055626834498
Weight per Piece (including packing)	218 g
Weight per Piece (excluding packing)	137 g
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	0 dBm
Minimum receiver sensitivity	-32 dBm
Maximum receiver sensitivity	0 dBm
Transmission physics	Single-mode fiberglass
Transmission length	20 km (fiberglass with F-G 9/125 0.5 dB/km)
Wavelength	1310 nm
No. of channels	1 (SC single mode)

Product properties

Product type	Switch

Product family	Unmanaged Switch 1000
MTTF	95.9 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)
	298.8 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	188.3 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_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	5.856 W

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 mm²
Residual ripple	3.6 V_{PP} (within the permitted voltage range)
Max. current consumption	196 mA (at 9 V DC)
Typical current consumption	51 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 mm² ... 2.5 mm²

Conductor cross section, flexible	0.2 mm² ... 2.5 mm²
Conductor cross section AWG	24 ... 12
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 2.5 mm²
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 2.5 mm²
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)

System properties

Functionality

Basic functions	Unmanaged switch
	Autonegotiation
	Store and Forward switching mode

Signaling

Status display	LEDs: U_S, link and activity per port

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1085214

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

KC
Approval ID: R-R-PCK-1085214

cUL Listed
Approval ID: FILE E 196811

UL Listed
Approval ID: FILE E 196811

cULus Listed

Classifications

ECLASS

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

ETIM

ETIM 8.0	EC000734

UNSPSC

UNSPSC 21.0	43222600

Environmental Product Compliance

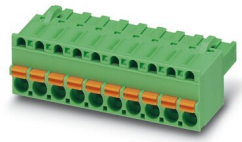
REACh SVHC	Lead 7439-92-1

Accessories

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

1087544

https://www.phoenixcontact.com/us/products/1087544

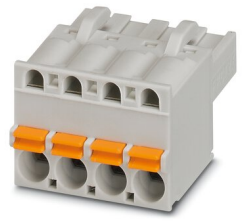


PCB connector, nominal cross section: 2.5 mm^2, color: light grey, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Socket, number of rows: 1, number of positions: 3, product range: FKCT 2,5/..-ST, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB 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/us/products/1998263



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

2881007

https://www.phoenixcontact.com/us/products/2881007

Surge protection in accordance with Class E_A ($CAT6_A$), 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 CAT5 PATCH 0,5 - Patch cable

2832263

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

Patch cable, CAT5, assembled, 0.5 m

FL CAT5 PATCH 1,0 - Patch cable

2832276

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

Patch cable, CAT5, assembled, 1 m

FL CAT5 PATCH 2,0 - Patch cable

2832289

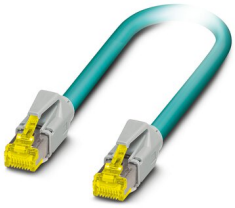
https://www.phoenixcontact.com/us/products/2832289

Patch cable, CAT5, assembled, 2 m

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

1411854

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

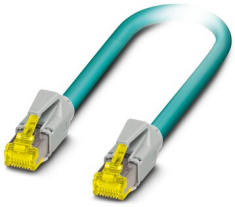


Patch cable, degree of protection: IP20, number of positions: 8, 10 Gbps, $CAT6_A$, cable outlet: straight, Ethernet

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

1408360

https://www.phoenixcontact.com/us/products/1408360

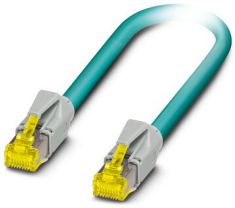


Patch cable, $CAT6_A$, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 2.0 m

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

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

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.

FL PANEL ADAPTER 22.5 - Mounting panel

1085488

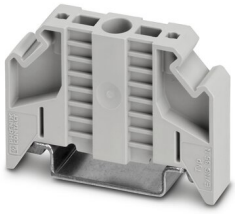
https://www.phoenixcontact.com/us/products/1085488

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/us/products/0800886



End clamp, width: 9.5 mm, color: gray

FL RJ45 PROTECT CAP - Dust protection

2832991

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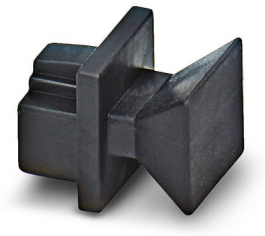

Dust protection caps for RJ45 socket

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