# FL SWITCH 1004N-FX SM - Industrial Ethernet Switch 

1085214
https://www.phoenixcontact.com/in/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 $10 / 100 \mathrm{Mbps}$
- 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 |
| Minimum order quantity | 1 pc |
| Sales Key | DNN |
| Product Key | DNN116 |
| GTIN | 4055626834498 |
| Weight per Piece (including packing) | 219 g |
| Weight per Piece (excluding packing) | 138 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
Note on the connection method
Transmission speed
Transmission physics
Transmission length
Signal LEDs
No. of channels

Ethernet FO
Number of interfaces 1
Connection method
Transmission speed
Transmit capacity, minimum
Transmit capacity, maximum
Minimum receiver sensitivity
Maximum receiver sensitivity
Transmission physics
Transmission length
Wavelength
No. of channels

4
RJ45
Auto negotiation and autocrossing
10/100 Mbps
Ethernet in RJ45 twisted pair
100 m (per segment)
Data receive, link status
4 (RJ45 ports)

## 1

SC
100 Mbps (full duplex)
-20 dBm
0 dBm
$-32 \mathrm{dBm}$
0 dBm
Single-mode fiberglass
20 km (fiberglass with F-G 9/125 $0.5 \mathrm{~dB} / \mathrm{km}$ )
1310 nm
1 (SC single mode)

Product properties

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| Product family | Unmanaged Switch 1000 |
| :--- | :--- |
| MTTF | 95.9 Years (MIL-HDBK-217F standard, temperature $25^{\circ} \mathrm{C}$, <br> operating cycle 100\%) |
|  | 298.8 Years (SN 29500 standard, temperature $25^{\circ} \mathrm{C}$, operating <br> cycle $21 \%)$ |
| Switch functions | 188.3 Years (Telcordia standard, $25^{\circ} \mathrm{C}$ temperature, $21 \%$ <br> operating cycle (5 days a week, 8 hours a day)) |
| Basic functions |  |
| PROFINET conformance class | Unmanaged switch |
| MAC address table | Store and Forward switching mode |
| Status and diagnostic indicators | Conformance-Class A |
| Additional functions | 2 k |
|  | LEDs: Us, link and activity per port |
|  | 100 BASE-TX/100BASE-FX (IEEE 802.3u) |
|  | Quality of Service (QoS) prioritization (IEEE 802.1p) |
|  | Energy-efficient Ethernet (IEEE 802.3az) |

Security functions
Basic functions

Unmanaged switch<br>Autonegotiation<br>Store and Forward switching mode

Electrical properties

## Supply

Supply voltage (DC)
Supply voltage (AC)
Supply voltage range

Power supply connection
Residual ripple
Max. current consumption
Typical current consumption

```
24 V DC
24 V AC (50/60 Hz)
9 V DC ... 32 V DC
18 V AC ... 30 V AC (50/60 Hz)
Via COMBICON, max. conductor cross section 2.5 mm2
3.6 V VP (within the permitted voltage range)
196 mA (at 9 V DC)
51 mA (at 24 V DC)
```

Connection data

| Connection method | Push-in spring 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 | $24 \ldots 12$ |
| Conductor cross section, flexible, with ferrule, with plastic sleeve | $0.25 \mathrm{~mm}^{2} \ldots 2.5 \mathrm{~mm}^{2}$ |
| Conductor cross section flexible, with ferrule without plastic <br> sleeve | $0.25 \mathrm{~mm}^{2} \ldots 2.5 \mathrm{~mm}^{2}$ |
| Stripping length | 10 mm |

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Environmental and real-life conditions

| Ambient conditions |  |
| :--- | :--- |
| Degree of protection | $-10^{\circ} \mathrm{C} 30$ |
| Ambient temperature (operation) | $-40^{\circ} \mathrm{C} \ldots 80^{\circ} \mathrm{C}$ |
| Ambient temperature (storage/transport) | $2000 \mathrm{~m}($ maximum $)$ |
| Altitude | $5 \% \ldots 95 \%$ (non-condensing) |
| Permissible humidity (operation) | $5 \% \ldots 95 \%$ (non-condensing) |
| Permissible humidity (storage/transport) | $30 \mathrm{~g} \mathrm{(EN} \mathrm{60068-2-27)}$ |
| Shock (operation) | in acc. with IEC 60068-2-6: $5 \mathrm{~g}, 150 \mathrm{~Hz}$ |
| Vibration (operation) | $79 \mathrm{kPa} \ldots 108 \mathrm{kPa}$ up to 2000 m above mean sea level (Without <br> derating) |
| Air pressure (operation) | $79 \mathrm{kPa} \ldots 108 \mathrm{kPa}$ up to 2000 m above mean sea level (Without <br> derating) |
| Air pressure (storage/transport) |  |

## System properties

Functionality

| Basic functions | Unmanaged switch |
| :--- | :--- |
|  | Autonegotiation |
|  | Store and Forward switching mode |

## Signaling

[^0]
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## Approvals

EH[ EAC
Approval ID: RU D-DE.GB09.B. 00312
(1) UL Listed

Approval ID: FILE E 238705

## -(1) cUL Listed

Approval ID: FILE E 238705

## -(1) cUL Listed

Approval ID: FILE E 140403

## (1) UL Listed

Approval ID: FILE E 140403
-(1) cUL Listed
Approval ID: FILE E 196811
(3) UL Listed

Approval ID: FILE E 196811

## Classifications

| ECLASS |
| :--- |
| ECLASS-11.0 |
| ECLASS-12.0 |
| ECLASS-13.0 |
| ETIM |
| ETIM 8.0 |
| UNSPSC |
| UNSPSC 21.0 |

Environmental Product Compliance

## 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: $2.5 \mathrm{~mm}^{2}$, 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: $0^{\circ}$, 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: $2.5 \mathrm{~mm}^{2}$, 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: $0^{\circ}$, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

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DT-LAN-CAT.6+ - Surge protection device
2881007
https://www.phoenixcontact.com/in/products/2881007


Surge protection in accordance with Class $\mathrm{E}_{\mathrm{A}}\left(\mathrm{CAT6}_{\mathrm{A}}\right)$, 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/in/products/2832263

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FL CAT5 PATCH 1,0 - Patch cable
2832276
https://www.phoenixcontact.com/in/products/2832276


FL CAT5 PATCH 2,0 - Patch cable
2832289
https://www.phoenixcontact.com/in/products/2832289

Patch cable, CAT5, assembled, 2 m


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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 ${ }_{A}$, cable outlet: straight, Ethernet


Patch cable, CAT6 $_{\text {A }}, 4$-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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NBC-R4AC/10G-R4AC/10G-94F/3,0 - Patch cable
1408365
https://www.phoenixcontact.com/in/products/1408365

Patch cable, CAT6 $_{\text {A }}$, 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 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.

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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

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

FL RJ45 PROTECT CAP - Dust protection
2832991
https://www.phoenixcontact.com/in/products/2832991

## Dust protection caps for RJ45 socket

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[^0]:    Status display
    LEDs: $U_{S}$, link and activity per port

