

FL SWITCH 1004N-FX SM - Industrial Ethernet Switch



1085214

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

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Unmanaged Switch 1000 series, 4 RJ45 ports 10/100 Mbps, 1 SC single mode 100 Mbps, degree of protection: IP30, Ambient temperature (operation): -10 °C ... 60 °C, Supply voltage range: 9 V DC ... 32 V DC, 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 |
| Minimum order quantity | 1 pc |
| Sales key | DN20 |
| Product key | DNN116 |
| GTIN | 4055626834498 |
| Weight per piece (including packing) | 218 g |
| Weight per piece (excluding packing) | 137 g |
| Customs tariff number | 85176200 |

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| | |
|-------------------|----|
| 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 |
|---------------------|-------------------------|

Utilization restriction

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

Material specifications

| | |
|------------------|--------------------------------|
| Color (Housing) | gray (RAL 7042) |
| Color (Cover) | light gray (RAL 7035) |
| 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) |
| Input buffer | 768 Kbits |
| Output buffer | 768 Kbits |

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 |

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| | |
|----------------------|---|
| 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 | 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) |
| Max. current consumption | 244 mA (at 9 V DC) |
| Typical current consumption | 51 mA (at 24 V DC) |

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Connection data

Power supply

| | |
|---|--|
| Connection method | Push-in spring connection |
| pluggable | yes |
| 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 |
| | 0.25 mm ² ... 2.5 mm ² |
| Conductor cross-section, flexible, with ferrule, with 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 |
| FCC certificate | T190905D11-C |

EMC data

| | |
|-----------------------|-------------------|
| Noise immunity | EN 61000-6-2:2019 |
| Noise emission | |
| Standards/regulations | EN_61000-6-4:2019 |

System properties

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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/1085214>

 **KC**
Approval ID: R-R-PCK-1085214

 **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 10.0 | EC000734 |
|-----------|----------|

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 | 2d06d5ab-21ba-4a08-b6ba-2f7208360ca9 |

EF3.1 Climate Change

| | |
|---------|--------------|
| CO2e kg | 4.64 kg CO2e |
|---------|--------------|

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