# FL SWITCH 1005NT - Industrial Ethernet Switch

1085170

https://www.phoenixcontact.com/us/products/1085170

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CRA-READY



Narrow Ethernet switch, wide temperature range five RJ45 ports with 10/100 Mbps on all ports, automatic data transmission speed detection, autocrossing function, and QoS

## Your advantages

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

ELEKTROGERÄTE RÜCKNAHME

## Commercial data

| | |
|---|---|
| Item number | 1085170 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |

| | |
|---|---|
| Sales key | DN20 |
| Product key | DNN116 |
| GTIN | 4055626834641 |
| Weight per piece (including packing) | 289.2 g |
| Weight per piece (excluding packing) | 202 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 | Only for industrial use |
| Note on application | As things stand now, we are preparing the product so that, as of December 11, 2027, it will comply with the requirements of the EU Cyber Resilience Act (CRA) based on the information currently available regarding the CRA. |

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 |
| | Aluminum / steel sheet DC01 |

## Mounting

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

## Interfaces

Ethernet (RJ45)

| | |
|---|---|
| Number of interfaces | 5 |
| 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 | 5 (RJ45 ports) |

## Product properties

| | |
|---|---|
| Product type | Switch |
| Product family | Unmanaged Switch 1000 |
| MTTF | 173.1 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%) |
| | 1627.3 Years (SN 29500 standard, temperature 25°C, operating cycle 21%) |
| | 1538.9 Years (Telcordia standard, 25°C temperature, 21% |

| | |
|---|---|
| | operating cycle (5 days a week, 8 hours a day)) |
| Special properties | Extended temperature range |
| | The product is being prepared for compliance with the Cyber Resilience Act (CRA) |

Switch functions

| | |
|---|---|
| MAC address table | 2k |
| PROFINET conformance class | Conformance Class A |
| Status and diagnostic indicators | LEDs: $U_S$, link and activity per port |
| Basic functions | Unmanaged switch |
| | Autonegotiation |
| | Store and Forward switching mode |
| 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) |

## Electrical properties

| | |
|---|---|
| Maximum power dissipation for nominal condition | 1.035 W (at 24 V DC) |
| Transmission medium | Copper |

Supply

| | |
|---|---|
| Supply voltage (DC) | 24 V |
| 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 | 115 mA (at 9 V DC) |
| Typical current consumption | 21 mA (at 24 V DC) |
| Ground connection | Via DIN rail |

## Connection data

Power supply

| | |
|---|---|
| Connection method | Push-in spring connection |
| pluggable | yes |
| 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 |
| | 0.25 mm² ... 2.5 mm² |
| Conductor cross-section, flexible, with ferrule, with 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) | -40 °C ... 75 °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<br>Class I, Div. 2, Groups A, B, C, D, T4<br>Class I, Zone 2, Group IIC, T4 |
| FCC | Title 47 Part 15 Subpart B:2018 Class A |
| FCC certificate | T190905D11-C |

## EMC data

| | |
|---|---|
| Electromagnetic compatibility | Conformance with EMC Directive 2014/30/EU |
| Conformance with EMC directives | EN 61000-6-2 EN 61000-4-2 (ESD) Criterion B |
| | EN 61000-6-2 EN 61000-4-3 (electromagnetic fields) Criterion A |
| | EN 61000-6-2 EN 61000-4-4 (EFT burst) Criterion A |
| | EN 61000-6-2 EN 61000-4-5 (surge) Criterion B |
| | EN 61000-6-2 EN 61000-4-6 (line noise immunity) Criterion A |
| | EN 61000-6-2 EN 61000-4-8 (electromagnetic fields) Criterion A |
| | EN 61000-6-2 EN 55032 Class A |
| Noise immunity | EN 61000-6-2:2019 |

Noise emission

| | |
|---|---|
| Standards/regulations | EN_61000-6-4:2019 |

## 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/1085170

**DNV GL**
Approval ID: TAA000034U

**UL Listed**
Approval ID: E238705

**cUL Listed**
Approval ID: E238705

**KC**
Approval ID: R-R-PCK-1085170

**CC-Link IE TSN Class A**
Approval ID: NRT-IT-00068

**IECEx**
Approval ID: IECEx UL 21.0120X

**cUL Listed**
Approval ID: E196811

**UL Listed**
Approval ID: E196811

**ATEX**
Approval ID: UL 21 ATEX 2638X

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 19170402 |
| ECLASS-15.0 | 19170402 |

### ETIM

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|---|---|
| ETIM 10.0 | EC000734 |

### UNSPSC

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

## 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

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|---|---|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1) |

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