

FL SWITCH 1005NT-2SFX - Industrial Ethernet Switch



1085164

<https://www.phoenixcontact.com/gb/products/1085164>

Please be informed that the data shown in this PDF document is generated from our Online Catalog. Please find the complete data in the user documentation. Our General Terms of Use for Downloads are valid.



Narrow Ethernet switch, wide temperature range, five RJ45 ports with 10/100 Mbps on all ports, two SFP ports with 100 Mbps, 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

Commercial Data

| | |
|--------------------------------------|---------------|
| Item number | 1085164 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales Key | DNN116 |
| Product Key | DNN116 |
| GTIN | 4055626832883 |
| Weight per Piece (including packing) | 343 g |
| Weight per Piece (excluding packing) | 261 g |
| Customs tariff number | 85176200 |
| Country of origin | TW |

Technical Data

Dimensions

| | |
|--------|----------|
| Width | 22.5 mm |
| Height | 140.4 mm |
| Depth | 92.4 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 |
| | 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) |

Ethernet (SFP)

| | |
|----------------------|------------------------------------------------------|
| Number of interfaces | 2 |
| Connection method | SFP |
| Transmission speed | 100 Mbps (full duplex) |
| Transmission physics | Depending on the SFP module |
| Transmission length | up to 40 km (Depending on the fiber/SFP module used) |
| Signal LEDs | Data receive, link status |
| No. of channels | 2 (SFP ports) |

Product properties

| | |
|----------------|------------------------------------------------------------------------------|
| Product type | Switch |
| Product family | Unmanaged Switch 1000 |
| MTTF | 115.8 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%) |

1085164

<https://www.phoenixcontact.com/gb/products/1085164>

| | |
|--|---------------------------------------------------------------------------------------------------------|
| | 1350.4 Years (SN 29500 standard, temperature 25°C, operating cycle 21%) |
| | 1335.2 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

| | |
|---------------------|--------|
| Transmission medium | Copper |
|---------------------|--------|

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 | 310 mA (at 9 V DC) |
| Typical current consumption | 25 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 |

1085164

<https://www.phoenixcontact.com/gb/products/1085164>

| | |
|-----------------------------------------------------------------------|----------------------------------------------|
| 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) | -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) |

EMC data

| | |
|---------------------------------|----------------------------------------------------------------|
| 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 Class A |
| Noise immunity | EN 61000-6-2:2005 |
| Electromagnetic compatibility | Conformance with EMC Directive 2014/30/EU |
| Noise emission | EN 61000-6-4:2007 + A1:2011 |

System properties

Functionality

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

Signaling

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

1085164

<https://www.phoenixcontact.com/gb/products/1085164>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/1085164>



DNV GL

Approval ID: TAA000034U



UL Listed

Approval ID: FILE E 238705



cUL Listed

Approval ID: FILE E 238705



KC

Approval ID: R-R-PCK-1085164



IECEx

Approval ID: IECEx UL 21.0120X



cUL Listed

Approval ID: File E 196811



UL Listed

Approval ID: File E 196811



ATEX

Approval ID: UL 21 ATEX 2638X

cULus Listed

cULus Listed

1085164

<https://www.phoenixcontact.com/gb/products/1085164>

Classifications

ECLASS

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

ETIM

| | |
|----------|----------|
| ETIM 8.0 | EC000734 |
|----------|----------|

UNSPSC

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

FL SWITCH 1005NT-2SFX - Industrial Ethernet Switch



1085164

<https://www.phoenixcontact.com/gb/products/1085164>

Environmental Product Compliance

REACH SVHC

Lead 7439-92-1

1085164

<https://www.phoenixcontact.com/gb/products/1085164>

Accessories

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

1087544

<https://www.phoenixcontact.com/gb/products/1087544>



PCB connector, nominal cross section: 2.5 mm², 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/gb/products/1998263>



PCB connector, nominal cross section: 2.5 mm², 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 °, locking clip: - Locking clip, plug-in system: COMBICON MSTB 2,5, locking: without, mounting: without, type of packaging: packed in cardboard

FL SWITCH 1005NT-2SFX - Industrial Ethernet Switch



1085164

<https://www.phoenixcontact.com/gb/products/1085164>

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

2881007

<https://www.phoenixcontact.com/gb/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 DIN-RAIL ADAPTER 22.5 - Mounting panel

1085485

<https://www.phoenixcontact.com/gb/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.

FL SWITCH 1005NT-2SFX - Industrial Ethernet Switch



1085164

<https://www.phoenixcontact.com/gb/products/1085164>

FL PANEL ADAPTER 22.5 - Mounting panel

1085488

<https://www.phoenixcontact.com/gb/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/gb/products/0800886>



End clamp, width: 9.5 mm, color: gray

FL SWITCH 1005NT-2SFX - Industrial Ethernet Switch



1085164

<https://www.phoenixcontact.com/gb/products/1085164>

FL RJ45 PROTECT CAP - Dust protection

2832991

<https://www.phoenixcontact.com/gb/products/2832991>



Dust protection caps for RJ45 socket

FL SFP FX - Media module

2891081

<https://www.phoenixcontact.com/gb/products/2891081>



The small form-factor plug-in module provides a fiber optic interface with a data transmission speed of 100 Mbps with a wavelength of 1310 nm (long).

FL SWITCH 1005NT-2SFX - Industrial Ethernet Switch



1085164

<https://www.phoenixcontact.com/gb/products/1085164>

FL SFP FX SM - Media module

2891082

<https://www.phoenixcontact.com/gb/products/2891082>



The small form-factor plug-in module provides a fiber optic interface with a data transmission speed of 100 Mbps with a wavelength of 1310 nm (long).

FL SFP FE WDM20-SET - Media module

2702439

<https://www.phoenixcontact.com/gb/products/2702439>



Fast Ethernet SFP WDM set for transmission up to a maximum of 20 km on a single fiber with a wavelength of 1310/1550 nm.

FL SWITCH 1005NT-2SFX - Industrial Ethernet Switch



1085164

<https://www.phoenixcontact.com/gb/products/1085164>

FL CAT5 PATCH 0,5 - Patch cable

2832263

<https://www.phoenixcontact.com/gb/products/2832263>

Patch cable, CAT5, assembled, 0.5 m



FL CAT5 PATCH 1,0 - Patch cable

2832276

<https://www.phoenixcontact.com/gb/products/2832276>

Patch cable, CAT5, assembled, 1 m



FL SWITCH 1005NT-2SFX - Industrial Ethernet Switch



1085164

<https://www.phoenixcontact.com/gb/products/1085164>

FL CAT5 PATCH 2,0 - Patch cable

2832289

<https://www.phoenixcontact.com/gb/products/2832289>

Patch cable, CAT5, assembled, 2 m

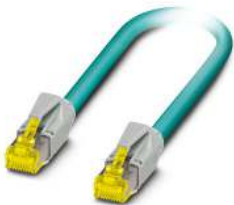


NBC-R4AC-R4AC-IE8A/.../... - Patch cable

1411854

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

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



1085164

<https://www.phoenixcontact.com/gb/products/1085164>

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

1408360

<https://www.phoenixcontact.com/gb/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/gb/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 SWITCH 1005NT-2SFX - Industrial Ethernet Switch



1085164

<https://www.phoenixcontact.com/gb/products/1085164>

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

1408968

<https://www.phoenixcontact.com/gb/products/1408968>



Patch cable, degree of protection: IP20, cable length: 1 m, number of positions: 4, 100 Mbps, CAT5, material: PA 6.6, PROFINET

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

1408969

<https://www.phoenixcontact.com/gb/products/1408969>



Patch cable, degree of protection: IP20, cable length: 2 m, number of positions: 4, 100 Mbps, CAT5, material: PA 6.6, PROFINET

FL SWITCH 1005NT-2SFX - Industrial Ethernet Switch



1085164

<https://www.phoenixcontact.com/gb/products/1085164>

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

1408970

<https://www.phoenixcontact.com/gb/products/1408970>



Patch cable, degree of protection: IP20, cable length: 5 m, number of positions: 4, 100 Mbps, CAT5, material: PA 6.6, PROFINET

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

1115607

<https://www.phoenixcontact.com/gb/products/1115607>



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

FL SWITCH 1005NT-2SFX - Industrial Ethernet Switch



1085164

<https://www.phoenixcontact.com/gb/products/1085164>

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

1115605

<https://www.phoenixcontact.com/gb/products/1115605>

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



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

1115633

<https://www.phoenixcontact.com/gb/products/1115633>

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



FL SWITCH 1005NT-2SFX - Industrial Ethernet Switch



1085164

<https://www.phoenixcontact.com/gb/products/1085164>

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

1115634

<https://www.phoenixcontact.com/gb/products/1115634>

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



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

1115588

<https://www.phoenixcontact.com/gb/products/1115588>

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



FL SWITCH 1005NT-2SFX - Industrial Ethernet Switch



1085164

<https://www.phoenixcontact.com/gb/products/1085164>

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

1115587

<https://www.phoenixcontact.com/gb/products/1115587>

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



FOC-LC:PA-SC:PA-OM4:D01/1 - FO patch cable

1115601

<https://www.phoenixcontact.com/gb/products/1115601>

Multi-mode OM4 duplex jumper, LC-SC, UPC polishing, length 1 m



FL SWITCH 1005NT-2SFX - Industrial Ethernet Switch



1085164

<https://www.phoenixcontact.com/gb/products/1085164>

FOC-LC:PA-SC:PA-OM4:D01/2 - FO patch cable

1115600

<https://www.phoenixcontact.com/gb/products/1115600>

Multi-mode OM4 duplex jumper, LC-SC, UPC polishing, length 2 m



FOC-LC:PA-LC:PA-OM4:D01/1 - FO patch cable

1115625

<https://www.phoenixcontact.com/gb/products/1115625>

Multi-mode OM4 duplex jumper, LC-LC, UPC polishing, length 1 m



FL SWITCH 1005NT-2SFX - Industrial Ethernet Switch



1085164

<https://www.phoenixcontact.com/gb/products/1085164>

FOC-LC:PA-LC:PA-OM4:D01/2 - FO patch cable

1115624

<https://www.phoenixcontact.com/gb/products/1115624>

Multi-mode OM4 duplex jumper, LC-LC, UPC polishing, length 2 m



FOC-LC:PA-LC:PA-OS2:D01/1 - FO patch cable

1115636

<https://www.phoenixcontact.com/gb/products/1115636>

Single-mode OS2 duplex jumper, LC-LC, UPC polishing, length 1 m



FL SWITCH 1005NT-2SFX - Industrial Ethernet Switch



1085164

<https://www.phoenixcontact.com/gb/products/1085164>

FOC-LC:PA-LC:PA-OS2:D01/2 - FO patch cable

1115629

<https://www.phoenixcontact.com/gb/products/1115629>

Single-mode OS2 duplex jumper, LC-LC, UPC polishing, length 2 m



FOC-LC:PA-ST:PA-OS2:D01/1 - FO patch cable

1115596

<https://www.phoenixcontact.com/gb/products/1115596>

Single-mode OS2 duplex jumper, LC-ST, UPC polishing, length 1 m



1085164

<https://www.phoenixcontact.com/gb/products/1085164>

FOC-LC:PA-ST:PA-OS2:D01/2 - FO patch cable

1115595

<https://www.phoenixcontact.com/gb/products/1115595>

Single-mode OS2 duplex jumper, LC-ST, UPC polishing, length 2 m



FOC-LC:PA-SC:PA-OS2:D01/1 - FO patch cable

1115618

<https://www.phoenixcontact.com/gb/products/1115618>

Single-mode OS2 duplex jumper, LC-SC, UPC polishing, length 1 m



FL SWITCH 1005NT-2SFX - Industrial Ethernet Switch



1085164

<https://www.phoenixcontact.com/gb/products/1085164>

FOC-LC:PA-SC:PA-OS2:D01/2 - FO patch cable

1115617

<https://www.phoenixcontact.com/gb/products/1115617>

Single-mode OS2 duplex jumper, LC-SC, UPC polishing, length 2 m



Phoenix Contact 2023 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT Ltd

Halesfield 13, Telford

Shropshire, TF7 4PG

01952 681700

info@phoenixcontact.co.uk