

FL SWITCH 1005NT-2SFX - Industrial Ethernet Switch



1085164

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

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Narrow Ethernet switch, wide temperare 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 |
| Sales Key | DN20 |
| Product Key | DNN116 |
| GTIN | 4055626832883 |
| Weight per Piece (including packing) | 343 g |
| Weight per Piece (excluding packing) | 261 g |
| 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%) |

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

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

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Approvals

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



DNV GL

Approval ID: TAA000034U



UL Listed

Approval ID: FILE E 238705



cUL Listed

Approval ID: FILE E 238705



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

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Classifications

ECLASS

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

ETIM

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

UNSPSC

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

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Environmental Product Compliance

REACH SVHC

Lead 7439-92-1

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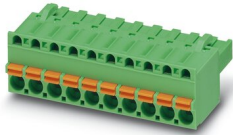
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Accessories

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

1087544

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

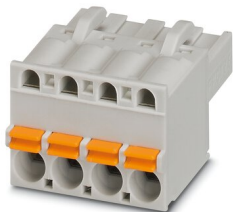


PCB connector, nominal cross section: 2.5 mm², color: light grey, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Socket, number of rows: 1, number of positions: 3, product range: FKCT 2,5/..-ST, pitch: 5 mm, connection method: Push-in spring connection, conductor/PCB 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/us/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

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

2881007

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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 plate

1085485

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

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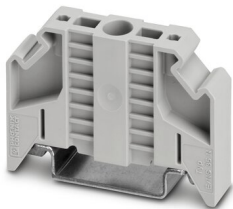


The FL PANEL ADAPTER 22.5 is designed to allow products 22.5 mm wide to be mounted flush to a panel, in any orientation.

E/NS 35 N - End clamp

0800886

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End clamp, width: 9.5 mm, color: gray

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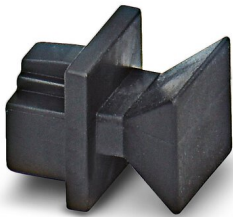
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FL RJ45 PROTECT CAP - Dust protection

2832991

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Dust protection caps for RJ45 socket

FL SFP FX - Media module

2891081

<https://www.phoenixcontact.com/us/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).

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FL SFP FX SM - Media module

2891082

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

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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.

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FL CAT5 PATCH 0,5 - Patch cable

2832263

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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



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FL CAT5 PATCH 2,0 - Patch cable

2832289

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

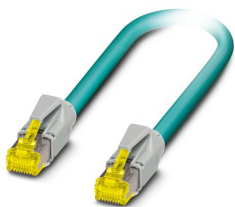


Patch cable, CAT5, assembled, 2 m

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

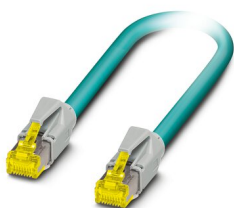
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NBC-R4AC/10G-R4AC/10G-94F/2,0 - Patch cable

1408360

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

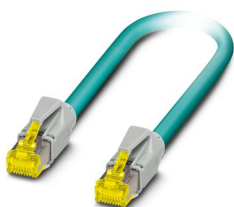


Patch cable, CAT6_A, 4-pair, shielded, connection not crossed (line), assembled at both ends with RJ45/IP20 connectors, outer sheath material: PUR, length: 2.0 m

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

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

1408968

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



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

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

1408970

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

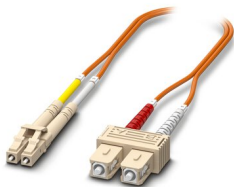


Patch cable, degree of protection: IP20, cable length: 5 m, number of positions: 4, 100 Mbps, CAT5, material: PA 6.6, PROFINET

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

1115607

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



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

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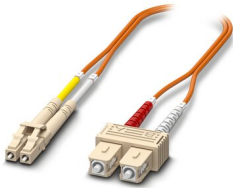
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FOC-LC:PA-SC:PA-OM2:D01/2 - FO patch cable

1115605

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

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

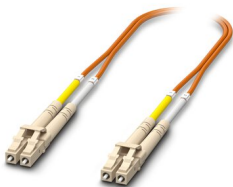


FOC-LC:PA-LC:PA-OM2:D01/1 - FO patch cable

1115633

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



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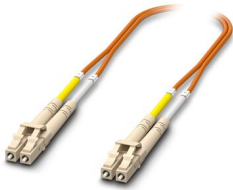
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FOC-LC:PA-LC:PA-OM2:D01/2 - FO patch cable

1115634

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

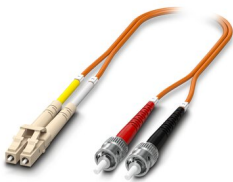


FOC-LC:PA-ST:PA-OM2:D01/1 - Fiber optic cable

1115588

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



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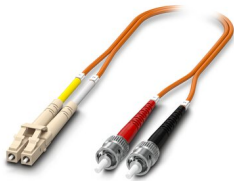
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FOC-LC:PA-ST:PA-OM2:D01/2 - Fiber optic cable

1115587

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

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

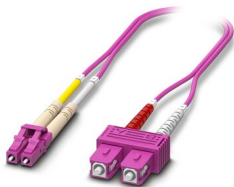


FOC-LC:PA-SC:PA-OM4:D01/1 - FO patch cable

1115601

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



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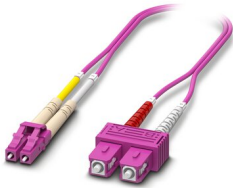
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FOC-LC:PA-SC:PA-OM4:D01/2 - FO patch cable

1115600

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

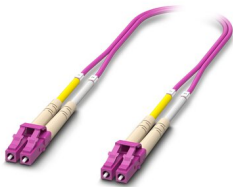


FOC-LC:PA-LC:PA-OM4:D01/1 - FO patch cable

1115625

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



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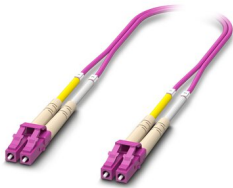
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FOC-LC:PA-LC:PA-OM4:D01/2 - FO patch cable

1115624

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

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



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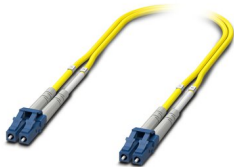
<https://www.phoenixcontact.com/us/products/1085164>

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

1115629

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

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



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

1115595

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

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

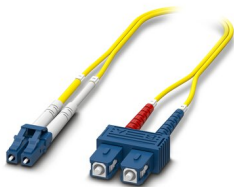


FOC-LC:PA-SC:PA-OS2:D01/1 - FO patch cable

1115618

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

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



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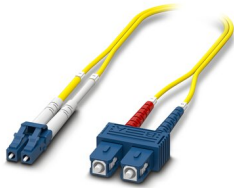
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FOC-LC:PA-SC:PA-OS2:D01/2 - FO patch cable

1115617

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

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



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