

MC 1000-SM20 ST - FO converters



1329821

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Fiber optic converter with ST (B-FOC) connection (1310 nm) for 100Base-TX to singlemode fiber optics, DIN rail mountable.

Product description

The MC 1000-SM20 ST media converter comes with one 10/100 Mbps twisted-pair RJ45 port and one 100 Mbps single-mode fiber port with an ST (B-FOC) connector.

Your advantages

- Auto MDI/MDI-X switch-over
- Data transfer rates of 100 Mbps
- Link fault pass through (LFPT) function for easy connection monitoring

Commercial data

Item number	1329821
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN06
Product key	DNC314
GTIN	4063151625610
Weight per piece (including packing)	188 g
Weight per piece (excluding packing)	180 g
Customs tariff number	85176200
Country of origin	CA

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Technical data

Notes

Note on application

Note on application	Only for industrial use
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Utilization restriction

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

Product type	Media converter
Product family	MC 1000
MTTF	87.2 Years (MIL-HDBK-217F standard, temperature 25°C, operating cycle 100%)
	756.3 Years (SN 29500 standard, temperature 25°C, operating cycle 21%)
	668.4 Years (Telcordia standard, temperature 25 °C, operating cycle 100 % (7 days a week, 24 hours a day))

Electrical properties

Supply

Supply voltage range	12 V DC ... 48 V DC
Nominal supply voltage	24 V DC
Typical current consumption	20 mA (24 V DC)
Max. current consumption	170 mA (12 V DC, 60 °C)

Connection data

Supply

Connection method	Push-in spring connection
Single conductor/terminal point, rigid	0.2 mm² ... 2.5 mm²
Single-wire/terminal point, flexible	0.2 mm² ... 2.5 mm²
Conductor cross-section, flexible [AWG]	24 ... 12
Conductor cross-section AWG	24 ... 12
Stripping length	10.00 mm

Interfaces

Signal	Ethernet
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Data: optical FO

Transmit capacity, minimum	-15 dBm (9/125 µm, singlemode fiberglass)
Transmit capacity, maximum	-8 dBm (9/125 µm, singlemode fiberglass)
Connection method	B-FOC (ST)
Wavelength	1310 nm

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Minimum receiver sensitivity	-32 dBm (9/125 µm, singlemode fiberglass)
Maximum receiver sensitivity	0 dBm (9/125 µm, singlemode fiberglass)
Transmission medium	Single-mode fiberglass

Data: Ethernet interface, 100Base-T(X) in accordance with IEEE 802.3

Transmission speed	10/100 Mbps
Connection method	RJ45 jack, shielded
No. of channels	1
Transmission length	100 m (twisted pair, shielded)
Transmission medium	Copper
Signal LEDs	LNK/ACT, SPD, US
Auto-negotiation modes	Auto
Link through	Link fault pass through
MDI-/MDI-X switchover	Auto-MDI(X)

Dimensions

Width	22.5 mm
Height	123 mm
Depth	90 mm

Material specifications

Housing material	Polyamide fiber reinforced
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Cable/line

FO cable

Fiber types	9/125 µm
	Fiberglass

Mechanical tests

Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	: 5g, 150 Hz, Criterion 3
Shock in accordance with EN 60068-2-27/IEC 60068-2-27	: 30g, 11 ms half-sine shock pulse

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 (in acc. with UL)
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Shock	300 m/s ² , 11 ms (IEC 60068-2)

Approvals

CE

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Certificate	CE-compliant
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EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
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Electrostatic discharge

Standards/regulations	EN 61000-4-2
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Electrostatic discharge

Comments	Criterion B
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Electromagnetic HF field

Standards/regulations	EN 61000-4-3
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Electromagnetic HF field

Comments	Criterion A
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Fast transients (burst)

Standards/regulations	EN 61000-4-4
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Fast transients (burst)

Comments	Criterion A
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Surge current load (surge)

Standards/regulations	EN 61000-4-5
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Surge current load (surge)

Comments	Criterion B
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Conducted interference

Standards/regulations	EN 61000-4-6
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Conducted interference

Comments	Criterion A
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Emitted interference

Standards/regulations	EN 55032
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Mounting

Mounting type	DIN rail mounting
Mounting position	on horizontal DIN rail NS 35 in acc. with EN 60715
Useable DIN rail type	DIN rail: 35 mm

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Approvals

 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1329821>



cULus Listed

Approval ID: E238705

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Classifications

ECLASS

ECLASS-13.0	19170411
ECLASS-15.0	19170411

ETIM

ETIM 9.0	EC001467
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UNSPSC

UNSPSC 21.0	43223323
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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes, No exemptions
China RoHS	
Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits
EU REACH SVHC	
REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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Accessories

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 gray, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Sn, contact connection type: 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 method: without, type of packaging: packed in cardboard

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

2881007

<https://www.phoenixcontact.com/us/products/2881007>



Surge protection in accordance with Class E_A (CAT6_A), for Gigabit Ethernet (up to 10 Gbps), token ring, FDDI/CDDI, ISDN, DS1. Suitable for Power over Ethernet (PoE++/4PPoE) "Mode A" and "Mode B". RJ45 intermediate plug with separate grounding cable and ground connection snap-on foot for NS 35 DIN rails. Products with similar requirements: DT-LAN-CAT.6A (2908726) und D-LAN-CAT.5-HC (2800763).

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FL DIN-RAIL ADAPTER 22.5 - Mounting panel

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.

FL PANEL ADAPTER 22.5 - Mounting panel

1085488

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

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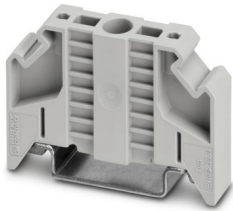


E/NS 35 N - End bracket

0800886

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

End clamp, width: 9.5 mm, color: gray



FL CAT5 PATCH 0,5 - Patch cable

2832263

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

Patch cable, CAT5, assembled, 0.5 m



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FL CAT5 PATCH 1,0 - Patch cable

2832276

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



Patch cable, CAT5, assembled, 1 m

FL CAT5 PATCH 2,0 - Patch cable

2832289

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



Patch cable, CAT5, assembled, 2 m

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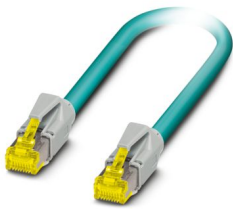
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NBC-R4AC-R4AC-IE8A/.../... - Patch cable

1411854

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

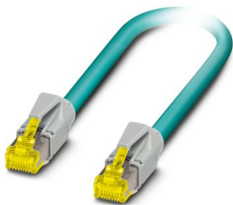


Patch cable, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6_A, cable outlet: straight, Ethernet

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

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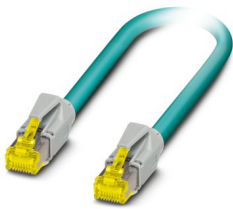
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NBC-R4AC/10G-R4AC/10G-94F/3,0 - Patch cable

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

SZS 0,4X2,0 - Screwdriver

1205202

<https://www.phoenixcontact.com/us/products/1205202>



Micro screwdriver, bladed, size: 0.4 x 2.0 x 60 mm, 2-component grip, with non-slip grip and twist cap

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FL DIN RA - DIN rail adapter

2891053

<https://www.phoenixcontact.com/us/products/2891053>

The FL DIN RA is installed in a standard, 19-inch rack (EIA-310-D, IEC 60297-3-100) to allow DIN rail mounted equipment to be rack mounted.



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

1115565

<https://www.phoenixcontact.com/us/products/1115565>

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



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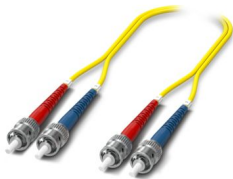


FOC-ST:PA-ST:PA-OS2:D01/2 - FO patch cable

1115564

<https://www.phoenixcontact.com/us/products/1115564>

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



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



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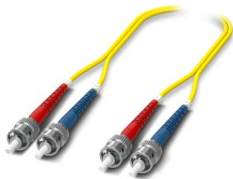


FOC-ST:PA-ST:PA-OS2:D01/0.5 - FO patch cable

1115567

<https://www.phoenixcontact.com/us/products/1115567>

Single-mode OS2 duplex jumper, ST-ST, UPC polishing, length 0.5 m



FOC-LC:PA-ST:PA-OS2:D01/0.5 - FO patch cable

1115597

<https://www.phoenixcontact.com/us/products/1115597>

Single-mode OS2 duplex jumper, LC-ST, UPC polishing, length 0.5 m



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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



FOC-LC:PA-ST:PA-OS2:D01/5 - FO patch cable

1115592

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Single-mode OS2 duplex jumper, LC-ST, UPC polishing, length 5 m



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FOC-LC:PA-ST:PA-OS2:D01/3 - FO patch cable

1115593

<https://www.phoenixcontact.com/us/products/1115593>

Single-mode OS2 duplex jumper, LC-ST, UPC polishing, length 3 m



FOC-LC:PA-ST:PA-OS2:D01/10 - FO patch cable

1146549

<https://www.phoenixcontact.com/us/products/1146549>

Single-mode OS2 duplex jumper, LC-ST, UPC polishing, length 10 m



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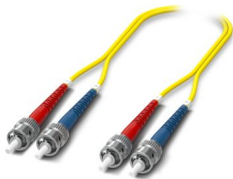
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FOC-ST:PA-ST:PA-OS2:D01/5 - FO patch cable

1115562

<https://www.phoenixcontact.com/us/products/1115562>

Single-mode OS2 duplex jumper, ST-ST, UPC polishing, length 5 m

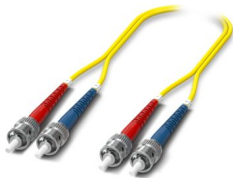


FOC-ST:PA-ST:PA-OS2:D01/3 - FO patch cable

1115563

<https://www.phoenixcontact.com/us/products/1115563>

Single-mode OS2 duplex jumper, ST-ST, UPC polishing, length 3 m



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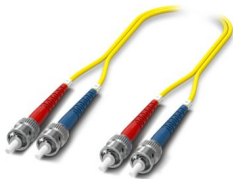


FOC-ST:PA-ST:PA-OS2:D01/10 - FO patch cable

1146551

<https://www.phoenixcontact.com/us/products/1146551>

Single-mode OS2 duplex jumper, ST-ST, UPC polishing, length 10 m



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