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FO converters - FL MC 2000T SC - 2891315

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FO converter with SC duplex fiber optic connection (1300 nm), for converting 100Base-TX to multi-mode fiberglass. Auto MDI(X) function and comprehensive link diagnostics. DIN rail mountable with wide operating temperature range.

Product Description

The FL MC 2000T media converter comes with one 10/100 Mbps twisted-pair RJ45 port and one 100 Mbps multimode fiber port with an SC-duplex connector

RoHS

PROFI NET ® Modbus

Key Commercial Data

Packing unit	1 pc
GTIN	4 046356 869577
GTIN	4046356869577
Weight per Piece (excluding packing)	300.000 g
Custom tariff number	85176200
Country of origin	Taiwan

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area

Dimensions

Width	28 mm
Height	110 mm
Depth	70 mm

Ambient conditions

Ambient temperature (operation)	-40 °C ... 75 °C

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Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)
Altitude	4850 m
Degree of protection	IP20

General

Electrical isolation	VCC // FE // Ethernet
Latency	865 ns (Pass-through mode)
Test voltage data interface/power supply	1500 V AC (500 V AC, 1 minute)
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Mounting position	On horizontal DIN rail NS 35 in acc. with EN 60715
Net weight	298.7 g
Housing material	Aluminum
Conformance	CE-compliant
UL, USA/Canada	Class I, Div. 2, Groups A, B, C, D

Power supply

Nominal supply voltage	24 V DC
Supply voltage range	12 V DC ... 48 V DC
Typical current consumption	110 mA (24 V DC)
Connection method	Plug-in screw terminal block (COMBICON), redundancy possible
Conductor cross section flexible max.	2.50 mm²
Conductor cross section flexible min.	0.20 mm²
Conductor cross section solid max.	2.50 mm²
Conductor cross section solid min.	0.20 mm²
Max. AWG conductor cross section, flexible	12
Min. AWG conductor cross section, flexible	24
Conductor cross section AWG max.	12
Conductor cross section AWG min.	24

Interfaces

Interface 1	Ethernet interface, 10/100Base-T(X) in accordance with IEEE 802.3
No. of ports	1
Connection method	RJ45 socket, shielded
Transmission medium	Copper
Transmission length	100 m (twisted pair, shielded)
Auto-negotiation modes	Auto
Link through	Link fault pass through

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Interfaces

MDI-/MDI-X switchover	Auto-MDI(X)
Signal LEDs	LNK/ACT, 100
Serial transmission speed	10/100 Mbps

Optical interface FO

Wavelength	1310 nm
Transmission length incl. 3 dB system reserve	8 km (fiberglass with F-G 62.5/125 0.7 dB/km F1000)
	3.3 km (fiberglass with F-G 62.5/125 2.6 dB/km F600)
	9.6 km (fiberglass with F-G 50/125 0.7 dB/km F1200)
	5.3 km (fiberglass with F-G 50/125 1.6 dB/km F800)
Transmission medium	Multi-mode fiberglass
	GI-HCS fiber
Connection method	SC duplex

Digital outputs

Output name	Relay output
Output description	Alarm output
Number of outputs	1
Contact type	N/C contact
Maximum switching voltage	≤ 250 V AC
Max. switching current	1 A

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Type of test	Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6
Test result	5g, 150 Hz, Criterion 3
Type of test	Shock in acc. with EN 60068-2-27/IEC 60068-2-27
Test result	30g, 11 ms half-sine shock pulse
Standards/regulations	EN 61000-4-2
	EN 61000-4-3
	EN 61000-4-4
Comments	Criterion A
Standards/regulations	EN 61000-4-5
	EN 55032
	EN 61000-4-6
Shock	300 m/s², 11 ms (IEC 60068-2)
Conformance	CE-compliant
UL, USA/Canada	Class I, Div. 2, Groups A, B, C, D

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Environmental Product Compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 10;
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Classifications

eCl@ss

eCl@ss 10.0.1	19170132
eCl@ss 4.0	27230200
eCl@ss 4.1	27230200
eCl@ss 5.0	27230200
eCl@ss 5.1	27230200
eCl@ss 6.0	19179200
eCl@ss 7.0	19179290
eCl@ss 8.0	19179290
eCl@ss 9.0	19170114

ETIM

ETIM 4.0	EC001099
ETIM 5.0	EC001467
ETIM 6.0	EC001467
ETIM 7.0	EC001467

UNSPSC

UNSPSC 13.2	43222604
UNSPSC 18.0	43223323
UNSPSC 19.0	43223323
UNSPSC 20.0	43223323
UNSPSC 21.0	43223323

Approvals

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UL Listed / cUL Listed / EAC / EAC / cULus Listed

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Approvals

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324

cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324

EAC	ⴹⴺⵏ	RU *-DE.A*08.B.00731

EAC	ⴹⴺⵏ	RU*DE*08.B.00731/19

cULus Listed	

Accessories

Accessories

Data cable preassembled

Patch cable - NBC-R4AC-R4AC-IE8A/.../... - 1411854

Patch cable, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6$_A$, cable outlet: straight

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Accessories

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

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

Patch cable - NBC-R4AC/1,0-93B/R4AC - 1408968

PROFINET patch cable, shielded, star-quad, 22 AWG stranded (7-wire), green, straight RJ45 male connector/IP20 to straight RJ45 male connector/IP20, length: 1.0 m

Patch cable - NBC-R4AC/2,0-93B/R4AC - 1408969

PROFINET patch cable, shielded, star quad, 22 AWG stranded (7-wire), green, straight RJ45 plug/IP20, to straight RJ45 plug/IP20, length: 2 m

Patch cable - NBC-R4AC/5,0-93B/R4AC - 1408970

PROFINET patch cable, shielded, star quad, 22 AWG stranded (7-wire), green, straight RJ45 plug/IP20 to straight RJ45 plug/IP20, length: 5 m

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Accessories

FO patch cable - FOC-LC:PA-SC:PA-OM2:D01/1 - 1115607

FO patch cable - FOC-LC:PA-SC:PA-OM2:D01/2 - 1115605

FO patch cable - FOC-SC:PA-SC:PA-OM2:D01/1 - 1115536

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

FO patch cable - FOC-SC:PA-SC:PA-OM2:D01/2 - 1115535

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

FO patch cable - FOC-ST:PA-SC:PA-OM2:D01/1 - 1115574

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

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Accessories

FO patch cable - FOC-ST:PA-SC:PA-OM2:D01/2 - 1115573

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

FO patch cable - FOC-LC:PA-SC:PA-OM4:D01/1 - 1115601

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

FO patch cable - FOC-LC:PA-SC:PA-OM4:D01/2 - 1115600

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

FO patch cable - FOC-SC:PA-SC:PA-OM4:D01/1 - 1115424

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

FO patch cable - FOC-SC:PA-SC:PA-OM4:D01/2 - 1115423

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

End block

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Accessories

End clamp - E/NS 35 N - 0800886

End clamp, width: 9.5 mm, color: gray

Patch cable

Patch cable - FL CAT5 PATCH 0,5 - 2832263

Patch cable, CAT5, assembled, 0.5 m

Patch cable - FL CAT5 PATCH 1,0 - 2832276

Patch cable, CAT5, assembled, 1 m

Patch cable - FL CAT5 PATCH 2,0 - 2832289

Patch cable, CAT5, assembled, 2 m

PCB plug

Printed-circuit board connector - MSTB 2,5/ 8-ST - 1754562

PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 8, pitch: 5 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin

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Accessories

Protective cap

Dust protection - FL RJ45 PROTECT CAP - 2832991

Dust protection caps for RJ45 socket

Safety locking

Key - FL PATCH GUARD KEY - 2891521

Key for lockable security element

Port Guard Security Element - FL PATCH GUARD - 2891424

Lockable security element

Surge protection for information technology

Surge protection device - DT-LAN-CAT.6+ - 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+) "Mode A" and "Mode B". RJ45 attachment plug with separate grounding cable and ground connection snap-on foot for NS 35 DIN rails.