



Compact Media Converters

FR-2701-XX Series

Industrial Microtype 10/100Base-TX to 100Base-FX Ethernet Media Converter

Product Data Sheet



FR-2701-XX Series



Main Features

- Converts 10/100Base-TX to 100Base-FX
- Full/Half duplex, Auto-Negotiation
- Single-mode or Multimode fiber operation
- Single or Dual-core fiber with SC (ST as an option)
- MDI/MDI-X Auto-Crossover supported
- Supports DIP-switch: Link Fault Pass Through
- Plug-and-Play
- Supports 12VDC/24VDC/24VAC Terminal Block Power inputs
- -20° C to 70° C operating temperature

Product Specifications

Hardware Specifications	
Model	FR-2701-XX
Ports	1x10/100Base-TX RJ45 1x100Base-FX
Port Mode(Tx)	Auto Negotiation Speed Full/Half Duplex Mode Auto MDI/MDI-X Connection
Maximum Packet Length	Up to 10K
Forward Filter Rate	14,880pps(10Mbps) 148,800pps(100Mbps)
Transmission Mode	Store and Forward (full/half duplex mode)
Optical	
Cabling	62.5/125µm (Multimode) 9/125µm (Singlemode)
Maximum Distance	2Km (Multimode) 20Km (Singlemode)
Wavelength	1310nm 1310/1550nm
Connector	SC (ST as an option)
Power	
Input Power	DC12V; DC24V; AC24V (Terminal Block)
Power Consumption	2.4W Max. 0.2A@12VDC
Physical Characteristics	
Housing	Aluminum case
IP Rating	IP40
Dimensions	38.5 * 95 * 24.5 mm; (with screw 42 * 95 * 24.5 mm)

Hardware Specifications	
Weight	120g(Bare weight), 250g(With package)
Installation	Wall Mount
Environmental	
Operating Temperature	-20°C to +70°C
Operating Humidity	5%~90% (non-condensing)
Storage Temperature	-40°C to +85°C
MTBF	>500,000 hours @MIL-HDBK-217F GF 25°C
Heat Dissipation	7 BTU/h
Cooling	Passive Cooling
Noise Level	0 dBA
Package Contents	
Device	1x Media Converter
Power adapter	1.25A 12VDC power adapter with open wire for terminal block
Documentation	1x Quick installation guide,1x Warranty card,1x Product notice
Regulatory & Warranty	
Standard Compliance	IEEE802.3 10Base-TX IEEE802.3u 100Base-TX/FX IEEE802.3x Flow Control
ISO	Manufactured in ISO-9001 facility
Safety	IEC62368-1:2020+A11:2020
EMI	FCC Part 15B Class A, IEC 61000-3-2
EMS	IEC61000-4-2 ESD: Contact:±8kV, Air:±15kV IEC61000-4-5 Surge: Power: ±4kV; RJ45:±2kV
Shock	IEC 60068-2-27
Free Fall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Environmental	RoHS 2011/65/EU Annex II(EU)
Warranty	3 Years, Details See: https://fiberroad.com/warranty

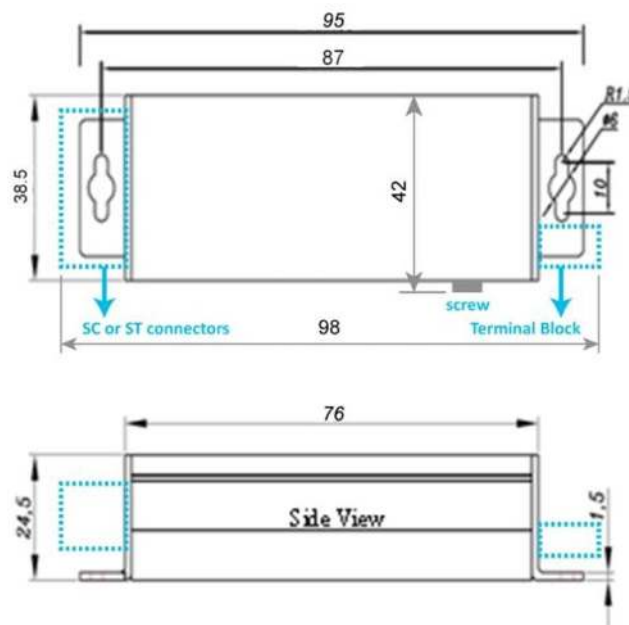
DIP Switch			
No.	Function	State	Description
1	LFP	OFF	Disable
		ON	Enable

Note: 1. LFP: Link Fault Pass Through
will shut down. A few seconds later, the power will restart automatically.

LEDs	States	Description
PWR	On	The device is powered on
LINK/ACT	Steady	A valid network connection established
	Flashing	Transmitting or receiving data. ACT Stands for Activity
SPD	Yellow	100Base-TX
	Off	10Base-TX
FX/SPD	Green	100Base-FX
	Off	10Base-FX
FX/LNK	Steady	A valid network connection established
	Flashing	Transmitting or receiving data. ACT Stands for Activity.

Dimensions

Unit: mm



Ordering Information

Available Model	Description	Input Voltage	Operating Temp.
FR-2701-AA	Industrial Microtype 10/100Base-TX to 100Base-FX Ethernet Media Converter, Multimode / 2-fiber / SC / 1310nm / 2km	DC12V; DC24V; AC24V	-20 to +70°C
FR-2701-BB	Industrial Microtype 10/100Base-TX to 100Base-FX Ethernet Media Converter, Singlemode / 2-fiber / SC / 1310nm / 20km		
FR-2701-CD	Industrial Microtype 10/100Base-TX to 100Base-FX Ethernet Media Converter, Multimode / 1-fiber / SC / TX: 1310 / RX: 1550nm / 2km		
FR-2701-DC	Industrial Microtype 10/100Base-TX to 100Base-FX Ethernet Media Converter, Multimode / 1-fiber / SC / TX: 1550 / RX: 1310nm / 2km		
FR-2701-EF	Industrial Microtype 10/100Base-TX to 100Base-FX Ethernet Media Converter, Singlemode / 1-fiber / SC / TX: 1310 / RX: 1550nm / 20km		
FR-2701-FE	Industrial Microtype 10/100Base-TX to 100Base-FX Ethernet Media Converter, Singlemode / 1-fiber / SC / TX: 1550 / RX: 1310nm / 20km		
FR-2701-GG	Industrial Microtype 10/100Base-TX to 100Base-FX Ethernet Media Converter, Multimode / 2-fiber / ST / 1310nm / 2km		

Optional Accessories (to be purchased separately)

Armored Fiber Patch Cable / LAN Cable	
FRPC-A-LC	Armored LSZH LC UPC to LC UPC Duplex OS2 single mode 7.0mm for Outdoor Application, 1-50m
FRLC-A-CAT6	Armored Cat6 Snagless shielded(SFTP) Ethernet Network Patch Cable, 26AWG, 1000Base-T, 0.5m – 3m

Shipping

Model No.	FR-2701-XX
Classification Codes	HS Code: 851762
	HTS: 8517.62.00
NDAA Compliant	Yes
Individual Gross Weight	250g
Individual Package Dimension	165x150x50mm
Package Quantity	60Units
Package Gross Weight	16kg
Package Dimension	535x345x470mm

Precautions

To prevent equipment damage or personal injury caused by improper operation, please observe the following precautions:

- ❖ Turn off the power before installation. Wear an anti-static wrist strap and ensure proper skin contact to prevent electrostatic discharge (ESD) damage.
- ❖ Ensure the power supply voltage matches the voltage specified on the switch.
- ❖ Before powering on the switch, verify that the power circuit is not overloaded to avoid abnormal operation or equipment damage.
- ❖ Do not open the chassis while the switch is operating. To avoid the risk of electric shock, do not disassemble the device.
- ❖ Disconnect the power before cleaning. Do not use a wet cloth or liquid cleaners.
- ❖ When installing in a rack, mount equipment from bottom to top to prevent overloading.
- ❖ Do not place heavy objects on the switch.

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