IMC-P101 Series

IEEE 802.3af PoE Ethernet-to-fiber media converters



Features and Benefits

- 10/100BaseT(X) auto-negotiation and auto-MDI/MDI-X
- IEEE 802.3af-compliant PoE PSE equipment
- · Power failure alarm by relay output
- · Supports store-and-forward mode and pass-through mode
- -40 to 75°C operating temperature range (-T models)
- · Redundant dual DC power inputs

Certifications



Introduction

IMC-P101 Ethernet-to-fiber media converters provide Ethernet media conversion from 10/100BaseT(X) to 100BaseFX (with SC or ST connectors). These converters are classified as power source equipment (PSE), and when used in this way, they provide up to 15.4 watts to IEEE 802.3afcompliant powered devices (PDs), eliminating the need for additional wiring. The IMC-P101 converters support IEEE 802.3/802.3u/802.3x with 10/ 100M, full/half-duplex, and MDI/MDI-X auto-sensing, providing a complete solution for your industrial Ethernet network.

Specifications

Ethernet Interface 100BaseFX Ports (multi-mode SC connector) IMC-P101-M-SC Series: 1 100BaseFX Ports (multi-mode ST connector) IMC-P101-M-ST Series: 1 100BaseFX Ports (single-mode SC connector) IMC-P101-S-SC Series: 1 100BaseFX Ports (single-mode ST connector) IMC-P101-S-ST Series: 1 00BaseFX Ports (single-mode ST connector) IMC-P101-S-ST Series: 1 00DaseFX Ports (single-mode ST connector) IMC-P101-S-ST Series: 1

Low-Speed Fiber Module		Multi-Mode	Single-Mode	
Fiber Cable Requirements		50/125 µm, 800 MHz	G.652	
		62.5/125 µm, 500 MHz		
Typical Distance		5 km	40 km	
Wavelength	Typical (nm)	850	1310	
	TX Range (nm)	840 to 860	1290 to 1330	
	RX Range (nm)	800 to 900	1100 to 1650	
Optical Power	TX Range (dBm)	0 to -8	0 to -8	
	RX Range (dBm)	0 to -25	0 to -25	
	Link Budget (dB)	15	20	
	Dispersion Penalty (dB)	1	1	

Note: When using a power meter to measure the fiber TX power, set the baudrate to 9,600 bps and send data (00, ..., 0h) to the serial converter's serial port.



Magnetic Isolation Protection	1.5 kV (built-in)			
PoE Ports (10/100BaseT(X), RJ45 connector)	1			
Power Parameters				
Input Current	130 mA @ 48 VDC			
Input Voltage	46 to 57 VDC			
Overload Current Protection	Supported			
Power Consumption	130 mA @ 48 VDC			
Physical Characteristics				
Housing	Metal			
Dimensions	144.5 x 122.3 x 51.65 mm (5.69 x 4.81 x 2.03 in)			
Weight	710 g (1.56 lb)			
Installation	DIN-rail mounting			
Environmental Limits				
Operating Temperature	Standard Models: 0 to 60°C (32 to 140°F) Wide Temp. Models: -40 to 75°C (-40 to 167°F)			
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)			
Ambient Relative Humidity	5 to 95% (non-condensing)			
Standards and Certifications				
EMC	EN 55032/24			
EMI	CISPR 32, FCC Part 15B Class A			
EMS	IEC 61000-4-2 ESD: Contact: 8 kV; Air: 15 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-4 EFT: Power: 4 kV; Signal: 4 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-4-8 PFMF IEC 61000-4-11 DIPs			
Environmental Testing	IEC 60068-2-2 IEC 60068-2-3			
Safety	EN 60950-1, UL 60950-1			
Vibration	IEC 60068-2-6			
MTBF				
Time	435,210 hrs			
Standards	Telcordia (Bellcore), GB			
Warranty				
Warranty Period	5 years			
Details	See www.moxa.com/warranty			



Package Contents

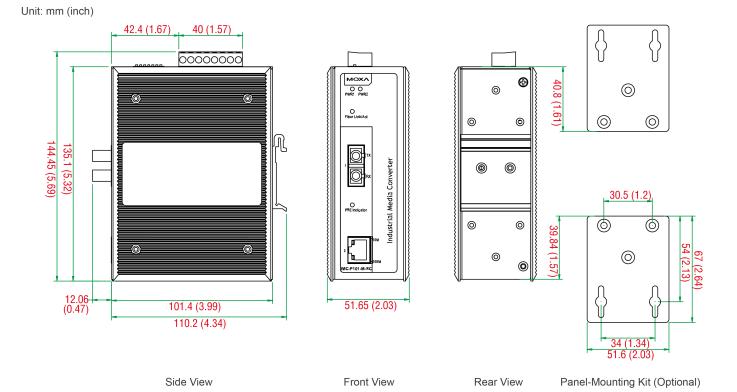
Device

Documentation

1 x IMC-P101 Series converter

1 x quick installation guide 1 x warranty card

Dimensions



Ordering Information

Model Name	Operating Temp.	Fiber Module Type
IMC-P101-M-SC	0 to 60°C	Multi-mode SC
IMC-P101-M-ST	0 to 60°C	Multi-mode ST
IMC-P101-S-SC	0 to 60°C	Single-mode SC
IMC-P101-S-ST	0 to 60°C	Single-mode ST
IMC-P101-M-SC-T	-40 to 75°C	Multi-mode SC
IMC-P101-M-ST-T	-40 to 75°C	Multi-mode ST
IMC-P101-S-SC-T	-40 to 75°C	Single-mode SC
IMC-P101-S-ST-T	-40 to 75°C	Single-mode ST

Accessories (sold separately)

Rack-Mounting Kits	
RK-4U	19-inch rack-mounting kit
Wall-Mounting Kits	
WK-46	Wall-mounting kit, 2 plates, 8 screws, 46.5 x 66.8 x 1 mm



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