

IMC-21 Series

Entry-level industrial 10/100BaseT(X)-to-100BaseFX media converters



Features and Benefits

- Multi-mode or single-mode, with SC or ST fiber connector
- Link Fault Pass-Through (LFPT)
- DIP switches to select FDX/HDX/10/100/Auto/Force

Certifications



Introduction

The IMC-21 industrial media converters are entry-level 10/100BaseT(X)-to-100BaseFX media converters designed to provide reliable and stable operation in harsh industrial environments. The converters are a cost-effective solution that run on either a 12 or 48 VDC power input and can operate reliably in temperatures ranging from -10 to 60°C. The rugged hardware design ensures that your Ethernet equipment can withstand demanding industrial conditions. The IMC-21 converters are easy to mount on a DIN rail or in distribution boxes.

Specifications

Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	1
100BaseFX Ports (multi-mode SC connector)	IMC-21-M-SC: 1
100BaseFX Ports (multi-mode ST connector)	IMC-21-M-ST: 1
100BaseFX Ports (single-mode SC connector)	IMC-21-S-SC: 1
Magnetic Isolation Protection	1.5 kV (built-in)

Optical Fiber

		100BaseFX		
		Multi-Mode		Single-Mode
Fiber Cable Type	OM1	50/125 μm	G.652	
Typical Distance		4 km	5 km	40 km
Wavelength	Typical (nm)	1300		1310
	TX Range (nm)	1260 to 1360		1280 to 1340
	RX Range (nm)	1100 to 1600		1100 to 1600
Optical Power	TX Range (dBm)	-10 to -20		0 to -5
	RX Range (dBm)	-3 to -32		-3 to -34
	Link Budget (dB)	12		29

		100BaseFX		
		Multi-Mode		Single-Mode
Fiber Cable Type		OM1	50/125 μm	G.652
			800 MHz x km	
		Dispersion Penalty (dB)	3	1
<p>Note: When connecting a single-mode fiber transceiver, we recommend using an attenuator to prevent damage caused by excessive optical power.</p> <p>Note: Compute the “typical distance” of a specific fiber transceiver as follows: Link budget (dB) > dispersion penalty (dB) + total link loss (dB).</p>				

Power Parameters

Input Current	12 to 48 VDC, 0.271A (Max.)
Input Voltage	12 to 48 VDC
Overload Current Protection	Supported

Physical Characteristics

Housing	Plastic
IP Rating	IP30
Dimensions	25 x 109 x 97 mm (0.98 x 4.29 x 3.82 in)
Weight	125 g (0.27 lb)
Installation	DIN-rail mounting

Environmental Limits

Operating Temperature	-10 to 60°C (14 to 140°F)
Storage Temperature (package included)	-40 to 70°C (-40 to 158°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: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-4 EFT: Power: 1 kV; Signal: 0.5 kV IEC 61000-4-5 Surge: Power: 1 kV; Signal: 1 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
Environmental Testing	IEC 60068-2-1 IEC 60068-2-2 IEC 60068-2-3
Safety	EN 60950-1, UL 60950-1
Vibration	IEC 60068-2-6

MTBF

Time	353,000 hrs
Standards	MIL-HDBK-217F

Warranty

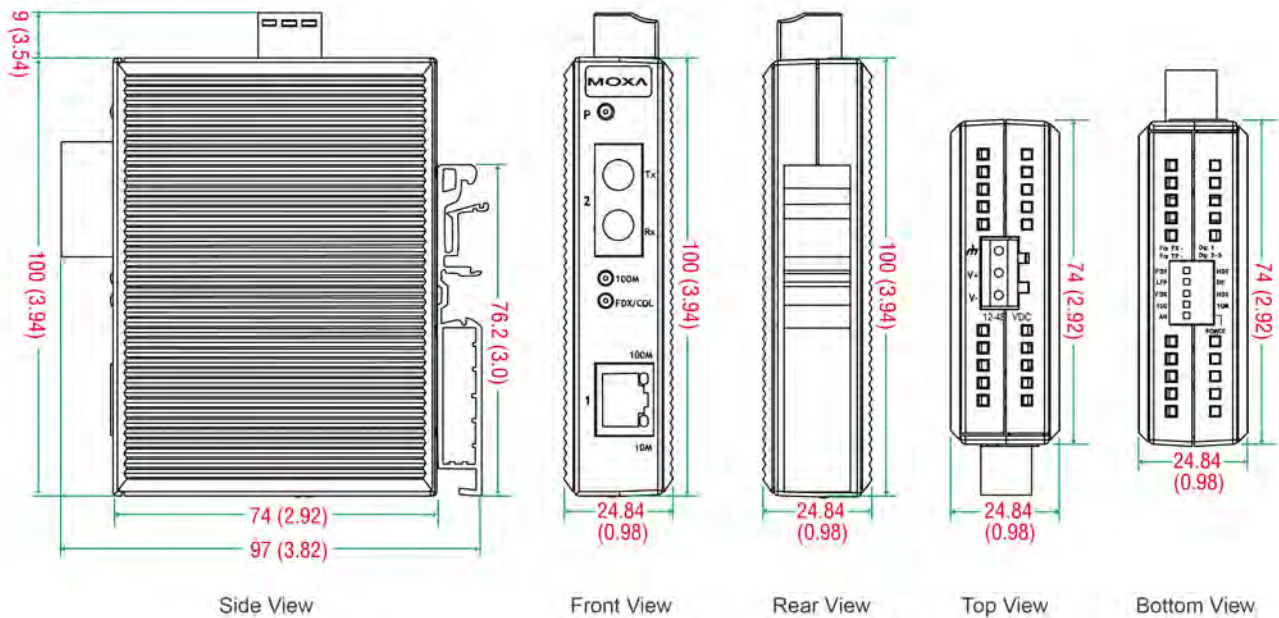
Warranty Period	5 years
Details	See www.moxa.com/warranty

Package Contents

Device	1 x IMC-21 Series converter
Documentation	1 x quick installation guide 1 x warranty card

Dimensions

Unit: mm (inch)



Ordering Information

Model Name	Fiber Module Type
IMC-21-M-SC	Multi-mode SC
IMC-21-M-ST	Multi-mode ST
IMC-21-S-SC	Single-mode SC

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