IMC-21A Series

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)
- -40 to 75°C operating temperature range (-T models)
- DIP switches to select FDX/HDX/10/100/Auto/Force

Certifications

Introduction

The IMC-21A 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 can operate reliably in temperatures ranging from -40 to 75°C. The rugged hardware design ensures that your Ethernet equipment can withstand demanding industrial conditions. The IMC-21A 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-21A-M-SC Series: 1
100BaseFX Ports (multi-mode ST connector)	IMC-21A-M-ST Series: 1
100BaseFX Ports (single-mode SC connector)	IMC-21A-S-SC Series: 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
			800 MHz x km	
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

Note: When connecting a single-mode fiber transceiver, we recommend using an attenuator to prevent damage caused by excessive optical power.
Note: Compute the “typical distance” of a specific fiber transceiver as follows: Link budget (dB) > dispersion penalty (dB) + total link loss (dB).

Power Parameters

Input Current	265 mA @ 12 to 48 VDC
Input Voltage	12 to 48 VDC
Overload Current Protection	Supported
Power Connector	Terminal block
Power Consumption	265 mA @ 12 to 48 VDC
Reverse Polarity Protection	Supported

Physical Characteristics

Housing	Metal
IP Rating	IP30
Dimensions	30 x 125 x 79 mm (1.19 x 4.92 x 3.11 in)
Weight	170 g (0.37 lb)
Installation	DIN-rail mounting

Environmental Limits

Operating Temperature	Standard Models: -10 to 60°C (14 to 140°F) Wide Temp. Models: -40 to 75°C (-40 to 167°F)
Storage Temperature (package included)	-40 to 75°C (-40 to 167°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

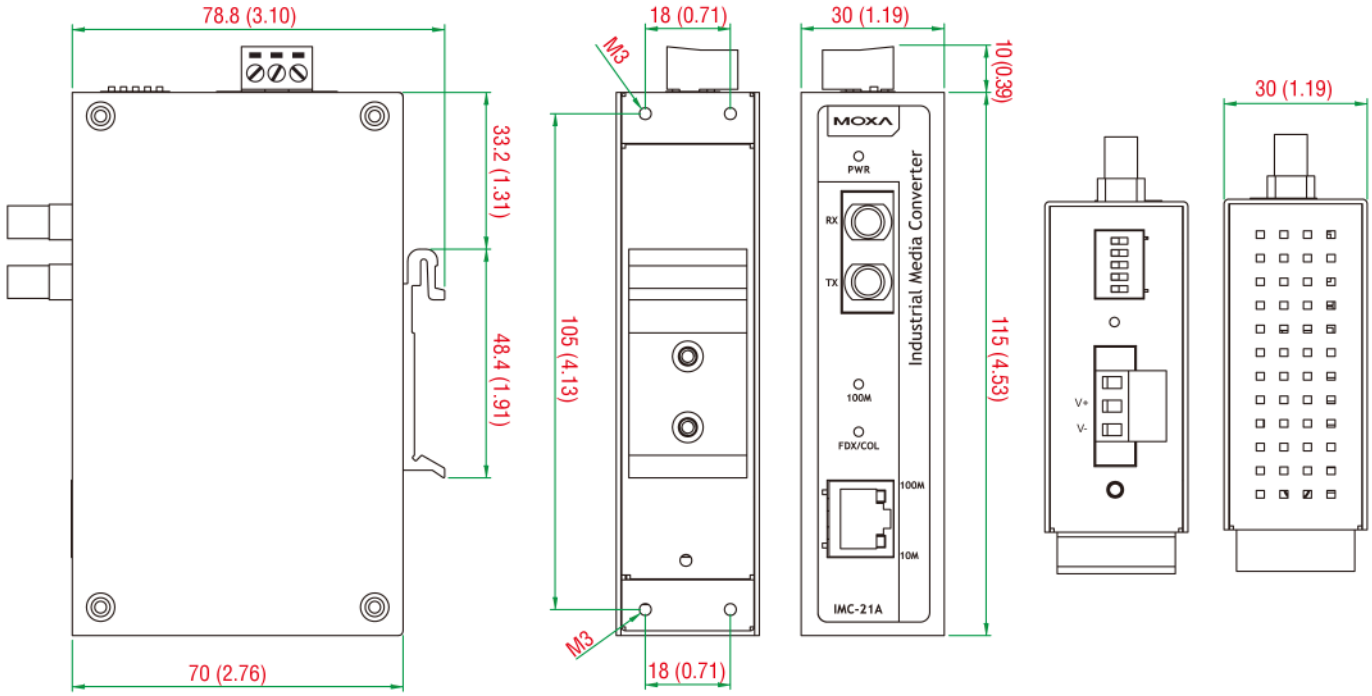
Warranty Period	5 years
Details	See www.moxa.com/warranty

Package Contents

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

Dimensions

Unit: mm (inch)



Side View | Rear View | Front View | Top View | Bottom View

Ordering Information

Model Name	Operating Temp.	Fiber Module Type
IMC-21A-M-SC	-10 to 60°C	Multi-mode SC
IMC-21A-M-ST	-10 to 60°C	Multi-mode ST
IMC-21A-S-SC	-10 to 60°C	Single-mode SC
IMC-21A-M-SC-T	-40 to 75°C	Multi-mode SC

Model Name	Operating Temp.	Fiber Module Type
IMC-21A-M-ST-T	-40 to 75°C	Multi-mode ST
IMC-21A-S-SC-T	-40 to 75°C	Single-mode SC