

# 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 $\mu$ m	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
		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) &gt; dispersion penalty (dB) + total link loss (dB).</p>				

#### Power Parameters

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

#### 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)

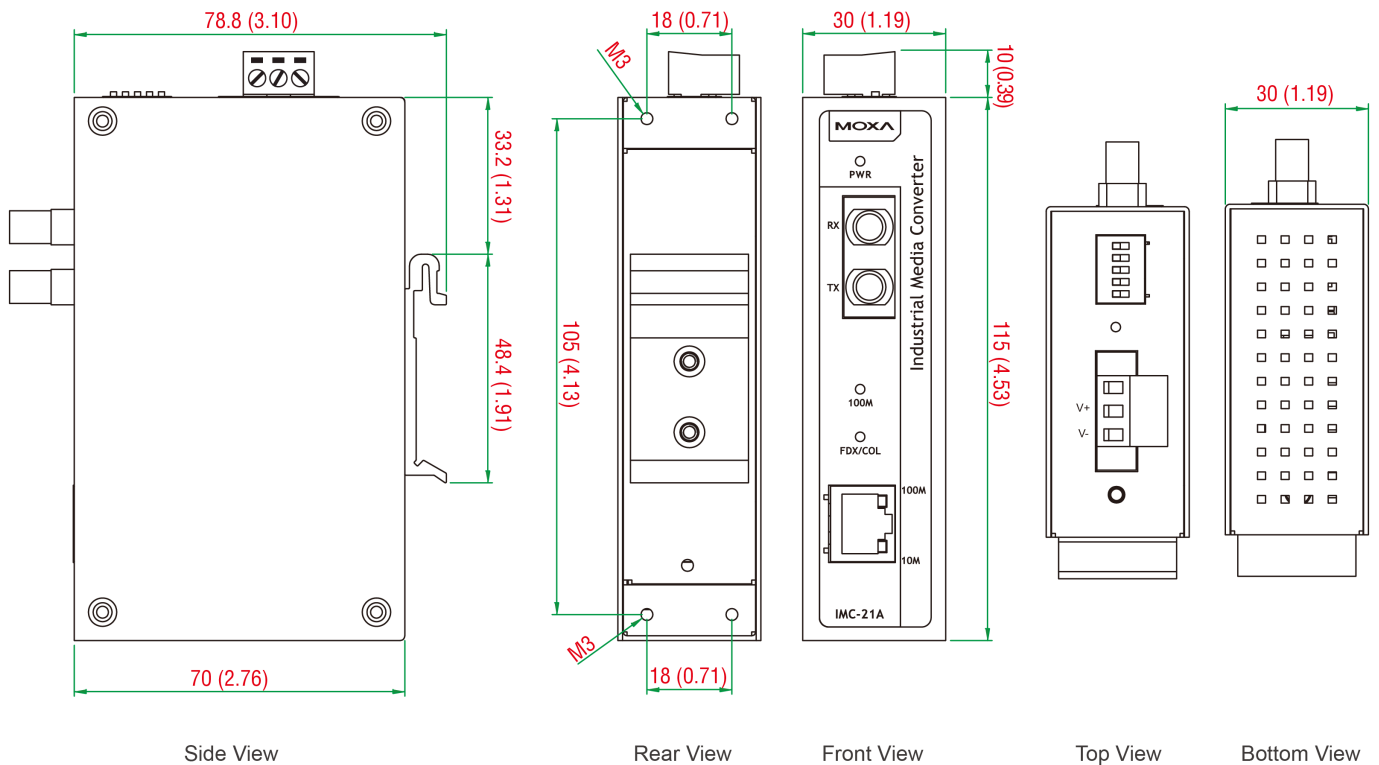
#### Standards and Certifications

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: 1 V/m IEC 61000-4-4 EFT: Power: 1 kV; Signal: 1 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 DIPs
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
<b>MTBF</b>	
Time	353,000 hrs
Standards	MIL-HDBK-217F
<b>Warranty</b>	
Warranty Period	5 years
Details	See <a href="http://www.moxa.com/warranty">www.moxa.com/warranty</a>
<b>Package Contents</b>	
Device	1 x IMC-21A Series converter
Documentation	1 x quick installation guide 1 x warranty card

## Dimensions

Unit: mm (inch)



## 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
IMC-21A-M-ST-T	-40 to 75°C	Multi-mode ST
IMC-21A-S-SC-T	-40 to 75°C	Single-mode SC

© Moxa Inc. All rights reserved. Updated Jan 09, 2019.

This document and any portion thereof may not be reproduced or used in any manner whatsoever without the express written permission of Moxa Inc. Product specifications subject to change without notice. Visit our website for the most up-to-date product information.