

IMC-101G Series

Industrial Gigabit Ethernet-to-fiber media converters



Features and Benefits

- 10/100/1000BaseT(X) and 1000BaseSFP slot supported
- Link Fault Pass-Through (LFPT)
- Power failure, port break alarm by relay output
- Redundant power inputs
- -40 to 75°C operating temperature range (-T models)
- Designed for hazardous locations (Class 1 Div. 2/Zone 2, IECEx)
- More than 20 options available¹

Certifications



Introduction

The IMC-101G industrial Gigabit modular media converters are designed to provide reliable and stable 10/100/1000BaseT(X)-to-1000BaseSX/LX/LHX/ZX media conversion in harsh industrial environments. The IMC-101G's industrial design is excellent for keeping your industrial automation applications running continuously, and each IMC-101G converter comes with a relay output warning alarm to help prevent damage and loss. All IMC-101G models are subjected to a 100% burn-in test, and they support a standard operating temperature range of 0 to 60°C and an extended operating temperature range of -40 to 75°C.

Specifications

Ethernet Interface

10/100/1000BaseT(X) Ports (RJ45 connector)	1
100/1000BaseSFP Ports	1
Magnetic Isolation Protection	1.5 kV (built-in)

Optical Fiber

		Gigabit Ethernet SFP									
		SFP-SX		SFP-LSX		SFP-LX	SFP-LH	SFP-LHX	SFP-ZX	SFP-EZX	SFP-EZX-120
Transceiver Type		Multi-Mode		Multi-Mode		Singl-e-mode	Singl-e-mode	Singl-e-mode	Singl-e-mode	Singl-e-mode	Singl-e-mode
Fiber Cable Type		O-M1	O-M2	O-M2	O-M1	G.652	G.652	G.652	G.652	G.652	G.652
Typical Distance		300 m	550 m	1 km	2 km	10 km	30 km	40 km	80 km	110 km	120 km
W-av-el-e-n-gt-h	Typi-cal (nm)	850		1310		1310	1310	1310	1550	1550	1550
	TX Ran-ge (nm)	830 to 860		1270 to 1355		1280 to 1355	1280 to 1355	1280 to 1340	1530 to 1570	1530 to 1570	1530 to 1570

1. See the SFP-1G Series datasheet for details.

		Gigabit Ethernet SFP							
		SFP-SX	SFP-LSX		SFP-LX	SFP-LH	SFP-LHX	SFP-ZX	SFP-EZX-120
	RX Range (nm)	770 to 860	1260 to 1610		1260 to 1610	1260 to 1610	1260 to 1610	1260 to 1610	1100 to 1600
Optical Power	TX Range (dB-m)	-4 to -9.5	-1 to -9		-3 to -9	-3 to -8	+3 to -4	+5 to 0	+3 to -2
	RX Range (dB-m)	0 to -18	-1 to -19		-3 to -21	-3 to -23	-1 to -24	-1 to -24	-9 to -33
	Link Budget (dB)	8.5	10		12	15	20	24	30
	Dispersion Penalty (dB)	4.3	3.6	5	5	1	1	1	1
Note: When connecting the SFP-LHX, ZX, EZX, or EZX-120, we recommend using an attenuator to prevent the transceiver from being damaged by excessive optical power.									

Power Parameters

Input Current	220 mA @ 12 VDC
Input Voltage	12 to 45 VDC
Overload Current Protection	Supported
Power Connector	Terminal block
Power Consumption	220 mA @ 12 VDC

Physical Characteristics

Housing	Metal
Dimensions	53.6 x 135 x 105 mm (2.11 x 5.31 x 4.13 in)
Weight	630 g (1.39 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: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 2 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
Hazardous Locations	-IEX models: IECEx

MTBF

Time	500,540 hrs
Standards	Telcordia (Bellcore), GB

Warranty

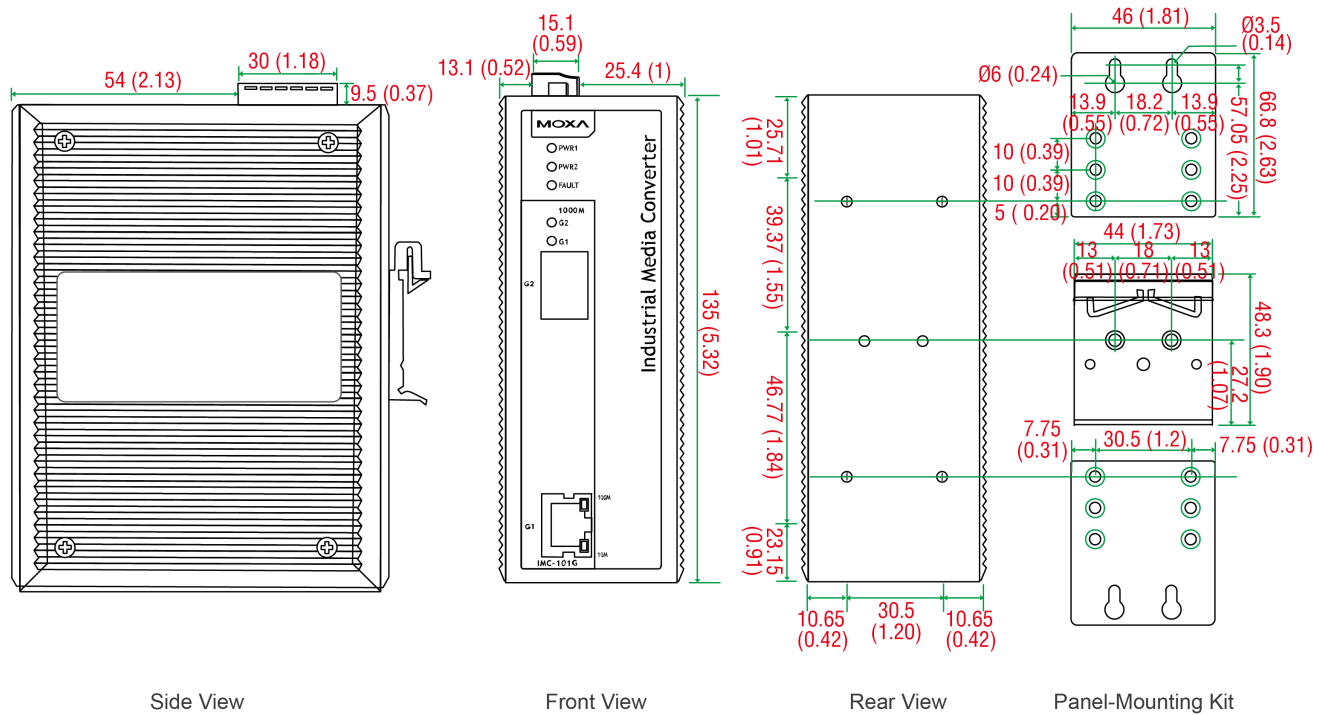
Warranty Period	5 years
Details	See www.moxa.com/warranty

Package Contents

Device	1 x IMC-101G Series converter
Documentation	1 x quick installation guide 1 x warranty card

Dimensions

Unit: mm (inch)



Ordering Information

Model Name	Operating Temp.	IECEx Supported
IMC-101G	0 to 60°C	—
IMC-101G-T	-40 to 75°C	—
IMC-101G-IEC	0 to 60°C	✓
IMC-101G-T-IEC	-40 to 75°C	✓

Accessories (sold separately)

Rack-Mounting Kits

RK-4U	19-inch rack-mounting kit
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Wall-Mounting Kits

WK-46	Wall-mounting kit, 2 plates, 8 screws, 46.5 x 66.8 x 1 mm
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