

IMC-101 Series

Industrial 10/100BaseT(X) to 100BaseFX Media Converter



Highlights

- 10/100BaseT(X) auto-negotiation and auto-MDI/MDI-X
- Link Fault Pass-Through (LFP)
- 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)



Features

High Performance Network Switching Technology

- 10/100BaseT(X) auto-negotiation and auto-MDI/MDI-X supported
- Multi mode, single mode with SC or ST connector available

Industrial-grade Reliability

- Link Fault Pass-Through (LFP)
- Power failure, port break alarm by relay output
- Redundant power inputs

Industrial Rugged Design

- Regular (0 to 60°C) and extended (-40 to 75°C) operating temperature models available
- DIN-Rail or panel mounting ability
- Long-haul transmit distance of 40 km or 80 km
- Designed for hazardous locations (Class 1 Div. 2/Zone 2)

Recommended Accessories

- DR series DIN-Rail 24 VDC power supplies

Introduction

IMC-101 industrial media converters provide industrial grade media conversion between 10/100BaseT(X) and 100BaseFX. IMC-101's reliable industrial design is excellent for keeping your industrial automation applications running continuously, and each IMC-101 converter comes with a relay output warning alarm to help prevent damage and loss. IMC-101 media converters are designed for harsh

industrial environments, such as in hazardous locations (Class 1 Division 2/Zone 2, DNV, and GL Certification), and comply with FCC, T ÜV, UL, and CE standards. The IMC-101 series is available in models that support an operating temperature of 0 to 60°C, and an extended operating temperature of -40 to 75°C. All IMC-101 series are subjected to a 100% burn-in test.

Specifications

Technology

Standards: IEEE802.3, 802.3u

Interface

RJ45 ports: 10/100BaseT(X)

Fiber ports: 100BaseFX (SC/ST connectors)

LED Indicators: PWR1, PWR2, FAULT, 10/100M (TP port), 100M (Fiber port), FDX/COL (Fiber port)

DIP Switches: 100BaseFX Full/Half duplex selection, port break alarm mask

Alarm Contact: One relay output with current carrying capacity of 1A @ 24 VDC

Optical Fiber

Distance:

- Multi mode: 0 to 5 km, 1300 nm (50/125 μm, 800 MHz*km)
0 to 4 km, 1300 nm (62.5/125 μm, 500 MHz*km)
- Single mode: 0 to 40 km, 1310 nm (9/125 μm, 3.5 PS/(nm*km))
0 to 80 km, 1550 nm (9/125 μm, 19 PS/(nm*km))

Min. TX Output:

- Multi mode : -20 dBm
- Single mode: 0 to 40 km, -5 dBm
0 to 80 km, -5 dBm

Max. TX Output:

- Multi mode: -14 dBm
- Single mode: 0 to 40 km, 0 dBm
0 to 80 km, 0 dBm

RX Sensitivity: -34 to -30 (Multi), -36 to -32 (Single)

Power

Input Voltage: 24 VDC (12 to 48 VDC), Redundant inputs
Input Current (@24V): 0.2A
Connection: Removable Terminal Block
Overload Current Protection: 1.1A
Reverse Polarity Protection: Present

Mechanical

Casing: IP30 protection, metal case
Dimensions (W x H x D): 53.6 x 135 x 105 mm
 2.11 x 5.31 x 4.13 in.

Weight: 630 g
Installation: DIN-Rail or Wall Mounting (optional kit)

Environmental

Operating Temperature: 0 to 60°C (32 to 140°F),
 -40 to 75°C (-40 to 167°F) for T models
Storage Temperature: -40 to 85°C (-40 to 185°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)

Regulatory Approvals

Safety: UL508, UL60950-1, CSA C22.2 No. 60950-1, EN60950-1

Hazardous location:

UL/cUL Class1, Division 2, Groups A, B, C, and D
 ATEX Class1, Zone 2, EEx nC IIC (03CA24537)

Maritime: GL, DNV

EMI: FCC Part 15, CISPR (EN55022) class A

EMS: EN61000-4-2 (ESD), level 3
 EN61000-4-3 (RS), level 3
 EN61000-4-4 (EFT), level 3
 EN61000-4-5 (Surge), level 3
 EN61000-4-6 (CS), level 3
 EN61000-4-8
 EN61000-4-11

Shock: IEC60068-2-27

Freefall: IEC60068-2-32

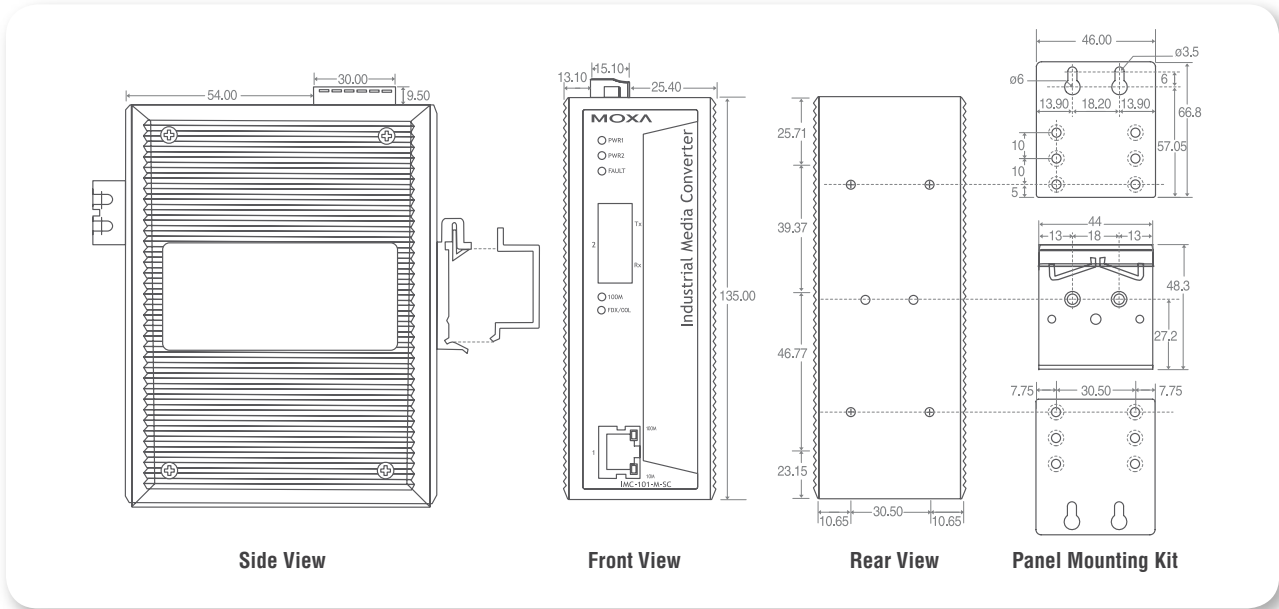
Vibration: IEC60068-2-6

MTBF: 401,000 hrs
 Data Base: MIL-HDBK-217F: GB 25°C

Warranty

5 years

Dimensions (unit = mm)



Ordering Information

IMC-101-A-BB-CC-D

Ordering Code Definition	Fiber Port	FO Connector	Single Mode Distance	Operating Temperature
	M: Multi Mode S: Single Mode	SC: SC Connector ST: ST Connector	80: 80 km	T: Operating Temp. -40 to 75°C (Standard Models: 0 to 60°C)
Available Models	Standard: • IMC-101-M-SC • IMC-101-M-ST • IMC-101-S-SC		Long-Haul: • IMC-101-S-SC-80	Wide Temperature: • IMC-101-M-SC-T • IMC-101-M-ST-T • IMC-101-S-SC-T • IMC-101-S-SC-80-T
Optional Accessories	• DR-4524: 45W/2A DIN-Rail 24 VDC Power Supply, 85 to 264 VAC input • DR-75-24: 75W/3.2A DIN-Rail 24 VDC Power Supply, 85 to 264 VAC input • DR-120-24: 120W/5A DIN-Rail 24 VDC Power Supply, 88 to 132 VAC/176 to 264 VAC input by switch • WK-46: Wall Mounting Kit			