

# IMC-101G

## Industrial Gigabit Ethernet-to-fiber media converter



- > 10/100/1000BaseT(X) and 1000BaseSX/LX/LHX/ZX supported
- > Link Fault Pass-Through (LFP)
- > Power failure, port break alarm by relay output
- > Redundant power input
- > -40 to 75°C operating temperature range (T models)
- > Designed for hazardous locations



### Introduction

The IMC-101G industrial Gigabit 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 are available in models that support a standard operating temperature range of 0 to 60°C, and an extended operating temperature range of -40 to 75°C.

### Specifications

#### Technology

##### Standards:

- IEEE 802.3 for 10BaseT
- IEEE 802.3u for 100BaseT(X) and 100BaseFX
- IEEE 802.3ab for 1000BaseT(X)
- IEEE 802.3z for 1000BaseSX/LX/LHX/ZX

##### Interface

- RJ45 Ports:** 10/100/1000BaseT(X)
- Fiber Ports:** 1000BaseFX (SC/ST connectors)
- LED Indicators:** PWR1, PWR2, FAULT, 10/100M (TP port), 1000M (TP and Fiber port)
- DIP Switches:** Port break alarm mask, Fault Pass-Through, Fiber AN/Force
- Alarm Contact:** One relay output with current carrying capacity of 1 A @ 24 VDC

##### Optical Fiber

##### Multi-mode Transmission Distance:

- 1000BaseSX:
  - 0 to 500 m, 850 nm (50/125 μm, 400 MHz\*km)
  - 0 to 275 m, 850 nm (62.5/125 μm, 200 MHz\*km)
- 1000BaseLX:
  - 0 to 1100 m, 1310 nm (50/125 μm, 800 MHz\*km)
  - 0 to 550 m, 1310 nm (62.5/125 μm, 500 MHz\*km)

##### Single-mode Transmission Distance:

- 1000BaseLX: 0 to 10 km, 1310 nm (9/125 μm, 3.5 PS/(nm\*km))
- 1000BaseLHX: 0 to 40 km, 1310 nm (9/125 μm, 3.5 PS/(nm\*km))
- 1000BaseZX: 0 to 80 km, 1550 nm (9/125 μm, 19 PS/(nm\*km))

##### Physical Characteristics

- Housing:** Metal, IP30 protection
- Dimensions:** 53.6 x 135 x 105 mm (2.11 x 5.31 x 4.13 in)
- Weight:** 630 g
- Installation:** DIN-Rail mounting, wall mounting (with optional kit)

#### 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:** -40 to 85°C (-40 to 185°F)
- Ambient Relative Humidity:** 5 to 95% (non-condensing)

##### Power Requirements

- Input Voltage:** 24 VDC (12 to 45 VDC), redundant inputs
- Input Current:** 110 mA @ 24 VDC
- Connection:** Removable terminal block
- Overload Current Protection:** 2.5 A
- Reverse Polarity Protection:** Present

##### Standards and Certifications

- Safety:** UL 508
- Hazardous Location:** UL/cUL Class I Division 2 Groups A/B/C/D, ATEX Zone 2 Ex nC IIC
- EMC:** CE, FCC
- EMI:** FCC Part 15 Subpart B Class A, EN 55022 Class A
- EMS:**
  - EN 61000-4-2 (ESD) Level 3,
  - EN 61000-4-3 (RS) Level 3,
  - EN 61000-4-4 (EFT) Level 3,
  - EN 61000-4-5 (Surge) Level 2,
  - EN 61000-4-6 (CS) Level 3,
  - EN 61000-4-8,
  - EN 61000-4-11
- Shock:** IEC 60068-2-27
- Freefall:** IEC 60068-2-32
- Vibration:** IEC 60068-2-6
- Green Product:** RoHS, CRoHS, WEEE

**MTBF** (mean time between failures)

Time: 500,540 hrs

Database: Telcordia (Bellcore), GB

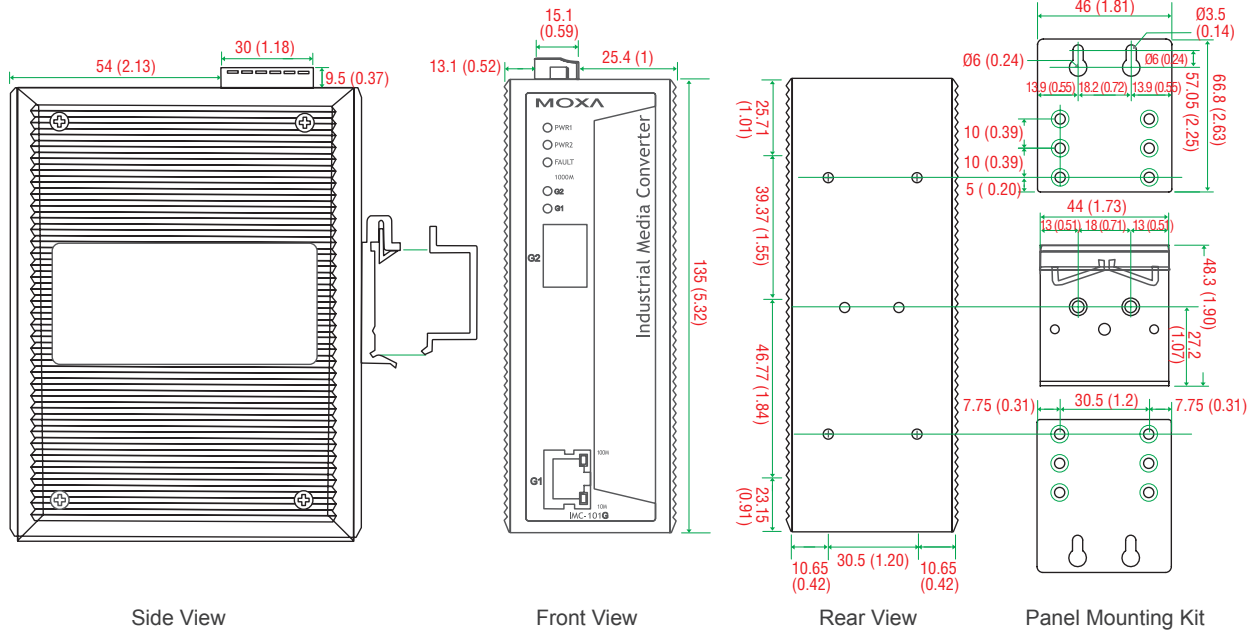
**Warranty**

Warranty Period: 5 years

Details: See [www.moxa.com/warranty](http://www.moxa.com/warranty)

**Dimensions**

Unit: mm (inch)



**Ordering Information**

**Available Models**

**IMC-101G:** Industrial 10/100/1000BaseT(X) to 1000BaseSX/LX/LHX/ZX media converter, 0 to 60°C operating temperature

**IMC-101G-T:** Industrial 10/100/1000BaseT(X) to 1000BaseSX/LX/LHX/ZX media converter, -40 to 75°C operating temperature

**Optional Accessories** (can be purchased separately)

**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 or 176 to 264 VAC input by switch

**WK-46:** Wall mounting kit

**RK-4U:** 4U-high 19" rack mounting kit

**Package Checklist**

- 1 IMC-101G media converter
- Quick installation guide (printed)
- Warranty card