IMC-100
IMC-100-E

10/100Base-T(X) to 100Base-FX Fiber Converter

IMC-100(E) are industrial media converters designed for conversion between electrical 10/100Base-T(X) and optical 100Base-FX transmission medium. Simple DIP switch settings allow configuring the UTP port for auto-negotiation or for forced 10/100 speed and half/full duplex as well as for enabling LFP (Link Fault pass through) Control(802.3X) and selecting Switch Mode (store & forward) or Converter Mode (Pass-through). Industrial designed converters feature rugged design with metal housings or wall mounting for DIN Rail mounting, highly reliable electrical design to support very long MTBF (mean time between failure), enhanced safety and surge protection, better EMS (Electro Magnetic Susceptibility), as well as expanded operating temperature ranges.

Features

- Redundant dual DC input Power 12/24/48VDC (9.6 ~ 58VDC)
- IP30 rugged metal housing
- Wide operating temperature -40 ~ 75°C (IMC-100-E)
- UL60950-1, CE, FCC, Rail traffic EN50121-4 certification
- Industrial Grade EMS, EMI, EN61000-6-2, EN61000-6-4 Certified
- Store-and-Forward mode and Pass Through mode (set by DIP SW)
- Conversion between 10/100Base-T(X) and 100Base-FX cable interface
- Provide a 6 Pole DIP-Switch to set functions

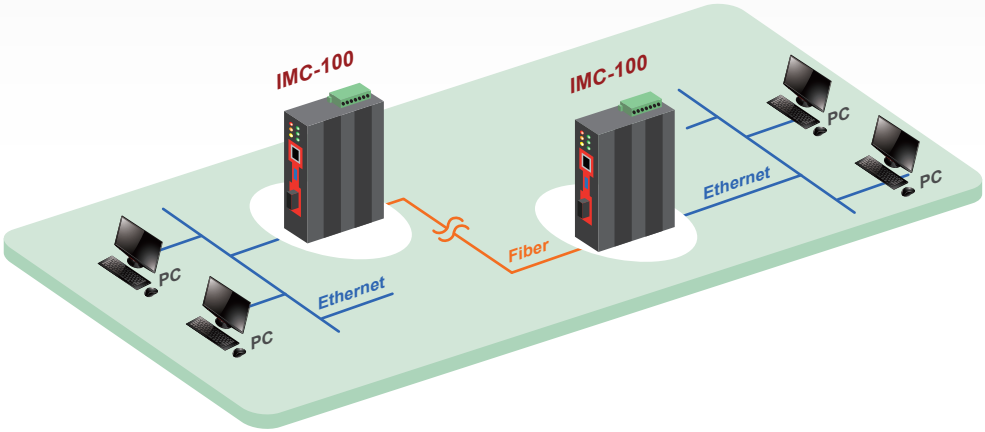
Specifications

Standard	IEEE 802.3 10Base-T
	IEEE 802.3u 100Base-T(X)/100Base-FX
	IEEE 802.3x Flow Control
RJ45 Ports	10/100Base-T(X)
Fiber Ports	100Base-FX (SC/ST connectors)
Switch Architecture	Store and Forward in Switch mode
	Supports 1024 MAC addresses in Switch mode
Ethernet Packet length	2046Byte (Max) in Switch mode
Jumbo frame	9K bytes in Pass through (Converter mode)
Fiber parameters	Fiber Cable (Multi-mode): 50/125um,62.5/125um
	Fiber Cable (Single-mode): 9/125um
	Wavelength: 1310nm (Multi-mode/Single-mode)
	Available distance: 2KM (Multi-mode) 30KM (Single-mode) 50KM (Single-mode)
Link Fault Pass Through	TX-- Fiber: If TX port link down, the media converter will force Fiber port to link down
	Fiber--TX: If Fiber port link down, the media converter will force TX port to link down
DIP Switch	1. TP Auto Negotiation OFF: Auto Mode, ON: Force Mode
	2. Force TP Speed OFF:100 Mbps , ON:10 Mbps
	3. Force TP Duplex OFF:Full Duplex, ON: Half Duplex
	4. DIP Switch: ON: Enables LFP(Link Fault Pass through) OFF: Disables LFP(Link Fault Pass through)
	5. DIP Switch: ON: Flow Control Enable OFF: Flow Control Disable
	6. DIP Switch: OFF: Switching mode ON: Pass through Converter mode
Connector	Fiber: SC (Multi-mode, 2km), SC (Single-mode, 30km, 50KM) ST (Multi-mode, 2km), ST (Single-mode, 30km, 50KM)
	RJ-45 Socket: CAT-3/5 (10/100Mbps) Twisted Pair cable
	Auto MDI/MDI-X and Auto-Negotiation Function Support
LED	PWR 1 (Green): ON: Power1 active/ OFF: Power1 is inactive
	PWR 2 (Green): ON: Power2 active/ OFF: Power2 is inactive
	Fault (Red): ON: Fiber or TP has failed OFF: TP are functional
	Fiber(Green): ON : Connected to network OFF: Not connected to network/ BLK: Receive/Transmit Data
	100 (Amber): ON: 100Mbps/ OFF: 10Mbps
	LAN(Green): ON : Connected to network OFF: Not connected to network/ BLK: Networking is active

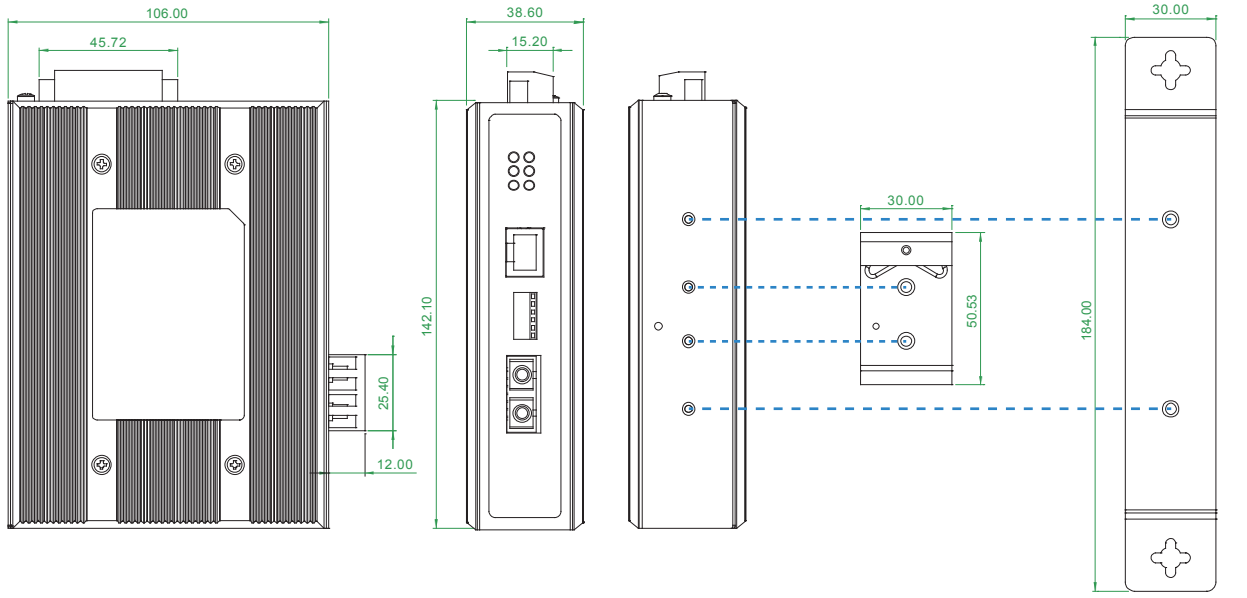
Reserve polarity protection	Present
Overload current protection	Present
Power Supply	12/24/48VDC(9.6~58VDC), Redundant power with polarity reverse protect function and removable terminal block
	Provide DC Power JACK adapter cable for external power adapter
Alarm Relay Contact	Relay outputs with current carrying capacity of 1 A @24VDC
Removable terminal block	Provide 2 Redundant power, Alarm relay contact
Power Consumption	2.9 W
Operating Humidity	5% ~ 95% (Non-condensing)
Operating Temperature	0 ~ 60°C(IMC-100), -40 ~ 75°C(IMC-100-E)
Storage Temperature	-40 ~ 85°C
Housing	Rugged Metal, IP30 Protection
Case Dimension	38 x 106 x 142mm (W X D X H)
Weight	0.62kg
Installation	DIN Rail mounting and Wall Mounting
EMI	FCC Part 15 Subpart B Class A,
	EN 55022 Class A
	EN 61000-6-4 – Emission for industrial environment
EMS	EN 61000-6-2 – Immunity for Industrial environment
	EN61000-4-2 (ESD) Level 3,Criteria B
	EN61000-4-3 (RS) Level 3,Criteria A
	EN61000-4-4 (EFT) Level 3,Criteria A
	EN61000-4-5 (Surge) Level 3,Criteria B
	EN61000-4-6 (CS) Level 3,Criteria A
	EN61000-4-8 (Magnetic Field) Level 3,Criteria A
Safety	UL60950-1 (Pending)
Rail traffic	EN50121-4
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6 (Operating, Packing)
MTBF	852,727 Hrs
Warranty	5 years

Application

IMC-100 Media Converter Transmission



Dimensions



Side View | Front View | Rear View | DIN-Rail Kit View | Wall-Mount Kit View

Ordering Information

Model Name	Description
IMC-100	1-Port 10/100-T(X) to 100-FX Fiber Converter ; Temperature Range : 0 ~ 60˚C
IMC-100-E	1-Port 10/100-T(X) to 100-FX Fiber Converter ; Temperature Range : -40 ~ 75˚C

Fiber Connector Type	Connectivity Distance
SC, ST	002:2km (M/M) 030:30km (S/M) 050:50km (S/M) 020A: WDM 20km A type (TX:1310nm) 020B: WDM 20km B type (TX: 1550nm)type

Temperature | Connector Type | Connectivity Distance

IMC – 100 – □ – □□□□□

Example: IMC – 100 – E – SC002