IMC-100

1x FE RJ45 to 1x 100Base-FX Fiber (ST/SC)

- *Supports LFPT (Link Fault Pass Through) and FEF (Far End Fault)*
- *Provides a DIP-Switch to Set Functions*
- *Supports Power Failure Alarm Message by Relay*
- *12/24/48VDC (9.6~60VDC) Redundant Dual Power input*
- *UL60950-1, EN50121-4, EN61000-6-2,EN61000-6-4, CE and FCC Certified*

The industrial grade unmanaged 100M Ethernet media converter that supports conversion between electrical 10/100Base-TX and optical 100Base-FX Ethernet. Housed in rugged DIN rail or wall mountable enclosures, the converter is designed for harsh environments, such as industrial networking and intelligent transportation systems (ITS) and is also suitable for many military and utility market applications where environmental conditions exceed commercial product specifications. Wide operating temperature range models (-40 to 75°C) fulfill the special needs of industrial automation applications.

Features

- IP30 rugged metal housing and fanless
- Wide operating temperature -40 ~ 75°C
- Store-and-Forward mode and Pass Through mode (set by DIP SW)
- Conversion between 10/100Base-TX and 100Base-FX cable interface

Specifications

Standard	IEEE 802.3	10Base-T 10Mbit/s Ethernet
	IEEE 802.3u	100Base-TX, 100Base-FX, Fast Ethernet
	IEEE 802.3x	Flow Control
RJ45 Ports	10/100Base-TX Auto MDI/MDI-X and Auto-Negotiation Function Supports UTP CAT.5e Twisted Pair Cable	
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 (LFPT)	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	
Far-End Fault (FEF)	Work with LFPT to prevents data loss	

DIP Switch	**TP Auto Negotiation** OFF: Auto Mode / ON: Force Mode
	Force TP Speed OFF: 100 Mbps / ON: 10 Mbps
	Force TP Duplex OFF: Full Duplex / ON: Half Duplex
	LFPT ON: Enables LFPT (Link Fault Pass Through) / OFF: Disables LFPT (Link Fault Pass through)
	Flow control ON: Flow control enable / OFF: Flow control disable
	Mode 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.5e (10/100Mbps) Twisted Pair cable
	Auto MDI/MDI-X and Auto-Negotiation Function
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
Reverse Polarity Protection	Supported for power input
Overload Current Protection	Supported
Power Supply	12/24/48VDC(9.6~60VDC), Redundant power with polarity reverse protect function and removable terminal block
Alarm Relay Contact	Relay outputs with current carrying capacity of 1A @24VDC
Removable Terminal Block	Provides 2 redundant power, alarm relay contact
Power Consumption	2.9 W
Operating Humidity	5% ~ 95% (Non-condensing)
Operating Temperature	-40 ~ 75°C
Storage Temperature	-40 ~ 85°C
Housing	Rugged Metal, IP30 Protection and fanless
Dimensions	106 x 38.6 x 142.1mm (D x W x H)
Weight	0.62kg
Installation	DIN Rail mounting or wall mounting (Optional)
MTBF	1,199,572 Hours (MIL-HDBK-217)
Warranty	5 years
Certification	
EMI	CE
EMI (Electromagnetic Interference)	FCC Part 15 Subpart B Class A, CE
Railway Traffic	EN50121-4
Immunity for Heavy Industrial Environment	EN 61000-6-2
Emission for Heavy Industrial Environment	EN 61000-6-4
EMS (Electromagnetic Susceptibility) Protection Level	EN61000-4-2 (ESD) Level 3, Criteria B
	EN61000-4-3 (RS) Level 3, Criteria A
	EN61000-4-4 (Burst) Level 3, Criteria A
	EN61000-4-5 (Surge) Level 3, Criteria B
	EN61000-4-6 (CS) Level 3, Criteria A
	EN61000-4-8 (PFMF, Magnetic Field) Field Strength: 300A/m, Criteria A
Safety	UL60950-1
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6

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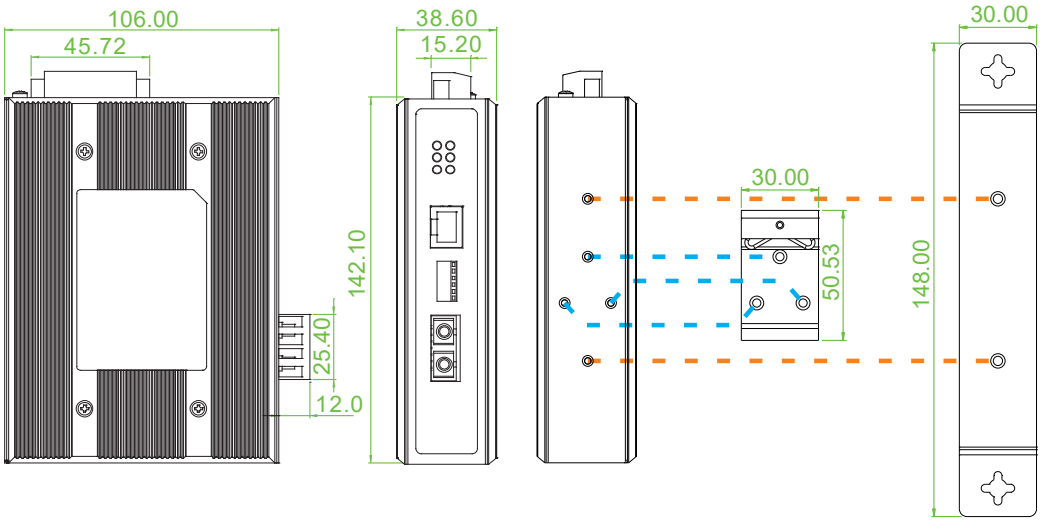
Dimensions



Side View | Front View | Rear View | DIN-Rail Kit View | Wall-Mount Kit View (Optional Accessory)

Ordering Information

Model Name	RJ45	SC/ST	Power Input	Certification				Operating Temperature
	10/100Base-TX	100Base-FX	Redundant	UL60950-1	EN50121-4	EN61000-6-2 EN61000-6-4	CE FCC	
IMC-100-E	1	1	12/24/48VDC	V	V	V	V	-40~75°C

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)

* MOQ is requested for ST type

Optional Accessories

■ Wall Mount Kit

IND-WMK01	Wall Mount kit for Industrial product, 184 x 30mm

■ Industrial Power Supply

MDR-20-24	Industrial Power, Input 85 ~ 264VAC/120 ~ 370VDC, Output 24VDC, 24W, -20 ~ 70°C
MDR-40-48	Industrial Power, Input 85 ~ 264VAC/120 ~ 370VDC, Output 48VDC, 40W, -20 ~ 70°C