



IMC-1000

10/100/1000Base-T to 100/1000Base-SX/LX
Fiber Converter

IMC-1000S

10/100/1000Base-T to 100/1000Base-X SFP Slot
Fiber Converter

IMC-1000(S) is a family of Gigabit Ethernet non-managed media converters that support conversion between electrical 10/100/1000Base-T and optical 100/1000Base-X Ethernet. Simple DIP switch settings allow configuring the UTP port for auto-negotiation or for forced 10/100/1000 speed and half/full duplex as well as for enabling LFPT (Link Fault Pass Through), Ethernet flow control(802.3x) and selecting Switch Mode (store & forward) or Converter Mode (Jumbo frame Pass-through). Housed in rugged DIN rail or wall mountable enclosures, these converters are designed for harsh environments, such as industrial networking and intelligent transportation systems (ITS) and are also suitable for many military and utility market applications where environmental conditions exceed commercial product specifications.

Features

- Redundant dual DC input power 12/24/48VDC (9.6 ~ 60VDC)
- IP30 rugged metal housing and fanless
- Wide operating temperature -20 ~ 75°C (IMC-1000-E, IMC-1000S-E)
- UL60950-1, CE, FCC, Railway 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 10/100/1000Base-T and 100/1000Base-X Fiber cable interface
- Provides a DIP-Switch to set functions
- Supports LFPT (Link Fault Pass Through)

Specifications

Standard	IEEE802.3 10Base-T 10Mbit/s Ethernet IEEE802.3u 100Base-TX, 100Base-FX, Fast Ethernet IEEE802.3ab 1000Base-T Gbit/s Ethernet over twisted pair IEEE802.3z 1000Base-X Gbit/s Ethernet over Fiber-Optic IEEE802.3x Flow Control
RJ45 Ports	10/100/1000Base-TX
Fiber Ports	1000Base SX/LX,100Base-FX SC (IMC-1000, IMC-1000-E) SFP Slot (IMC-1000S, IMC-1000S-E)
Data Process Architecture	Store and Forward mode or Pass through mode set by DIP SW
Jumbo Frame	9K bytes
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: (IMC-1000, IMC-1000-E) 500M (Multi-mode SX) 20KM (Single-mode) 40KM (Single-mode) SFP (IMC-1000S, IMC-1000S-E), Distance depend on Fiber Transceiver
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
DIP Switch	Off: Alarm For Power Enable On: Alarm For Power Disable Off: Alarm For Port Enable On: Alarm For Port Disable Off: LFPT Disable On: LFPT Enable Off: Switch Mode On: Converter Mode Off: 1000Base-X On: 100Base-FX
Connector	Fiber: SC (Multi-mode, 500M), SC (Single-mode, 20KM, 40KM) (IMC-1000, IMC-1000-E) SFP Slot (IMC-1000S, IMC-1000S-E) RJ-45 Socket: CAT 5e Twisted Pair cable Auto MDI/MDI-X and Auto-Negotiation Function Supports
LED	Per Unit: Power 1 (Green), Power 2 (Green), Fault (Amber) LNK/ACT for Fiber(Green): ON: Connected to network/ OFF: Not connected to network/ BLK: Receive /Transmit Data SFP Fiber speed: Yellow: 1000Base-X Green: 100Base-FX
LED	RJ-45 port: Speed: 10 (OFF), 100 (Green), 1000 (Yellow) LNK/ACT for RJ45(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 (9.6~60VDC) , Redundant power with polarity reverse protect function and removable terminal block Provide DC Power JACK adapter cable for external Power adapter
Power Consumption	4.2W
Alarm Relay Contact	Relay outputs with current carrying capacity of 1 A @24VDC
Removable Terminal Block	Provide 2 Redundant power, Alarm relay contact
Operating Humidity	5% ~ 95% (Non-condensing)
Operating Temperature	-10 ~ 60°C (IMC-1000, IMC-1000S) -20 ~ 75°C (IMC-1000-E, IMC-1000S-E)
Storage Temperature	-40 ~ 85°C
Housing	Rugged Metal, IP30 Protection and fanless
Dimensions	106 x 38 x 142 mm (D x W x H)
Weight	630g (IMC-1000, IMC-1000-E) 620g (IMC-1000S, IMC-1000S-E)
Installation	DIN Rail or wall mounting
MTBF	563,813Hrs (IMC-1000, IMC-1000-E) 578,980Hrs (IMC-1000S, IMC-1000S-E)
Warranty	5 years
Certification	
EMC	CE
EMI (Electromagnetic Interference)	FCC Part 15 Subpart B Class A, CE EN55022 Class A
Railway Traffic	EN50121-4
Immunity for Heavy Industrial Environment	EN61000-6-2
Emission for Heavy Industrial Environment	EN61000-6-4
EMS	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

Application & Topology

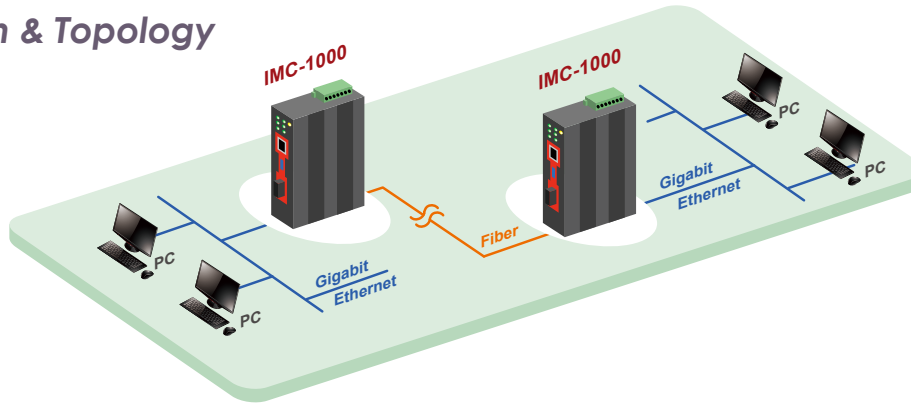
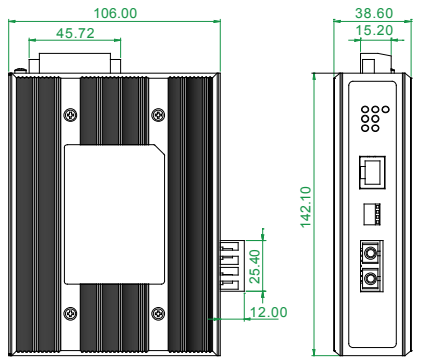


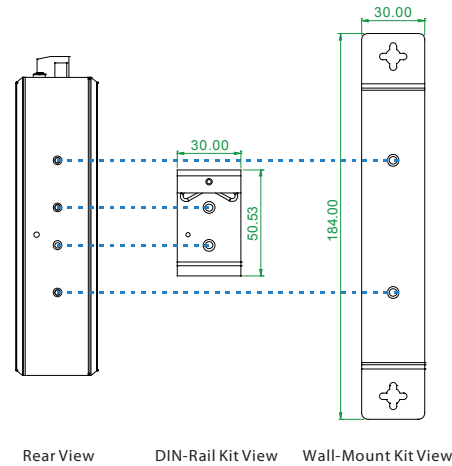
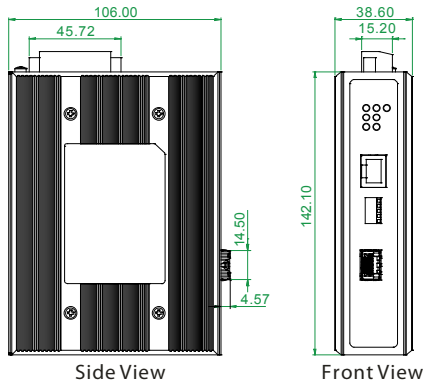
Figure : IMC-1000 Media Converter Transmission

Dimensions

IMC-1000(E)



IMC-1000S(E)

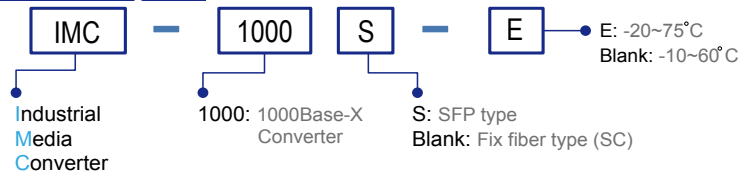


Rear View DIN-Rail Kit View Wall-Mount Kit View

Ordering Information

Model Name	UTP		Fiber		Certification				Operating Temperature	
	10/100/1000 Base-T		Dual Speed 100/1000Base-X		Safety UL60950-1	Railway EN50121-4	EN61000-6-2 EN61000-6-4	CE		FCC
IMC-1000	1		1 SC		V	V	V	V	V	-10~60°C
IMC-1000-E	1		1 SC		V	V	V	V	V	-20~75°C
IMC-1000S	1		1 SFP		V	V	V	V	V	-10~60°C
IMC-1000S-E	1		1 SFP		V	V	V	V	V	-20~75°C

Model Naming Rule

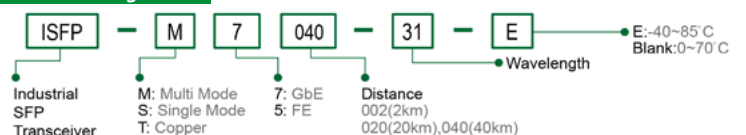


Connector Type	Connectivity Distance
SC	001:500M (M/M) 002 : 2km (M/M) 020:20km (S/M) 040:40km (S/M)
(IMC-1000 & IMC-1000-E only)	020A: WDM 20km A type (TX:1310nm) 020B: WDM 20km B type (TX: 1550nm)type

Accessories

DR-4524	Industrial Power, Input 85 ~ 264VAC, Output 24VDC, 48W, -10 ~ +50°C
MDR-40-24	Industrial Power, Input 85 ~ 264VAC, Output 24VDC, 40W, -20 ~ +70°C
SFP Transceiver	Compatible, Reliable, 5-year Warranty

SFP Naming Rule



Example: IMC - 1000 - E - SC002