

NEW



IMC-1000C

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

IMC-1000CS

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

IMC-1000C(S) is a family of Gigabit Ethernet non-managed media converters that support conversion between electrical 10/100/1000Base-T and optical 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

- DC input power 12/24/48VDC (9.6 ~ 60VDC)
- IP30 rugged metal housing and fanless
- Wide operating temperature -20 ~ 75°C (IMC-1000C-E, IMC-1000CS-E)
- 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 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, SC (IMC-1000C) 100/1000Base-X SFP Slot (IMC-1000CS)
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-1000C) 500M (Multi-mode SX) 20KM (Single-mode) 40KM (Single-mode) SFP (IMC-1000CS), Distance depend on SFP 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	Data process architecture OFF: Switch Mode ON: Converter Mode LFPT OFF:LFPT Disable ON: LFPT Enable Fiber Duplex OFF: Auto ON: Force Fiber Speed (Only for IMC-1000CS) OFF: 1000Base-X ON: 100Base-FX
Connector	Fiber: SC (Multi-mode, 500M), SC (Single-mode, 20KM, 40KM) (IMC-1000C) SFP Slot (IMC-1000CS) RJ-45 Socket: CAT 5e Twisted Pair cable Auto MDI/MDI-X and Auto-Negotiation Function Supports
LED	Per Unit: Power (Green) SFP/Fiber port Link/Act (Yellow) RJ-45 port: Speed & Link/Act 10/100 (Green), 1000 (Yellow)
Reserve Polarity Protection	Present

Overload Current Protection	Present
Power Supply	12/24/48VDC (9.6~60VDC) or 24VAC (18~36VAC) with polarity reverse protect function and removable terminal block
Removable Terminal Block	Provide for input power (2 Pin)
Operating Humidity	5% ~ 95% (Non-condensing)
Operating Temperature	-10 ~ 60°C (IMC-1000C, IMC-1000CS) -20 ~ 75°C (IMC-1000C-E, IMC-1000CS-E)
Storage Temperature	-40 ~ 85°C
Housing	Rugged Metal, IP30 Protection and fanless
Dimensions	70x 30x 103 mm (D x W x H)
Weight	220g (IMC-1000C) 215g (IMC-1000CS)
Installation	DIN Rail, or wall mounting (Optional)
MTBF	325,508 (IMC-1000C) 326,287 (IMC-1000CS) (MIL-HDBK-217)
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
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6

Application & Topology

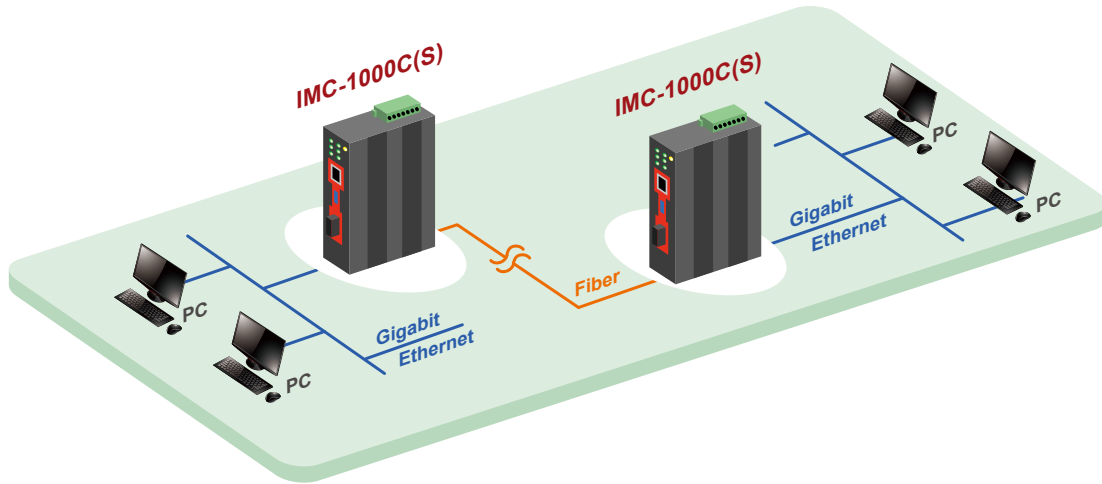
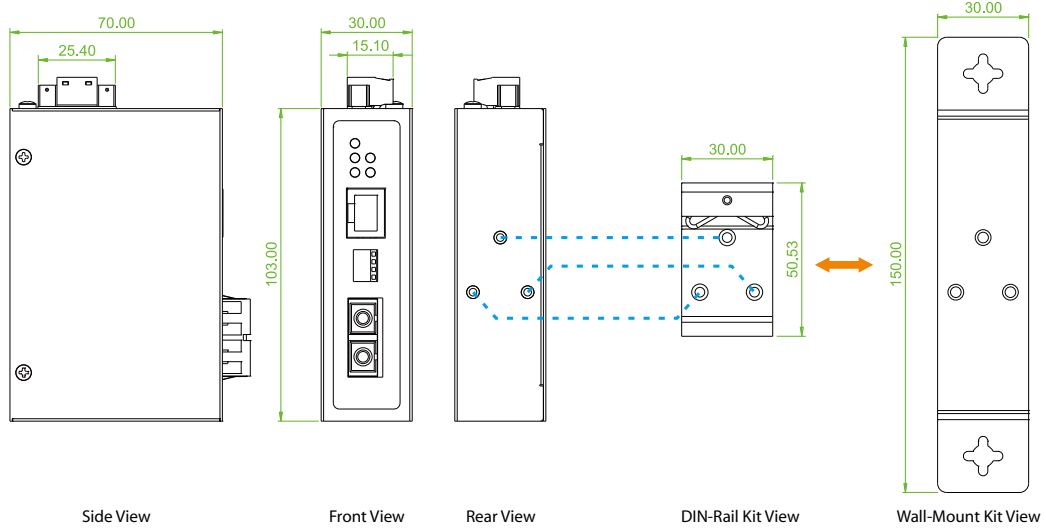


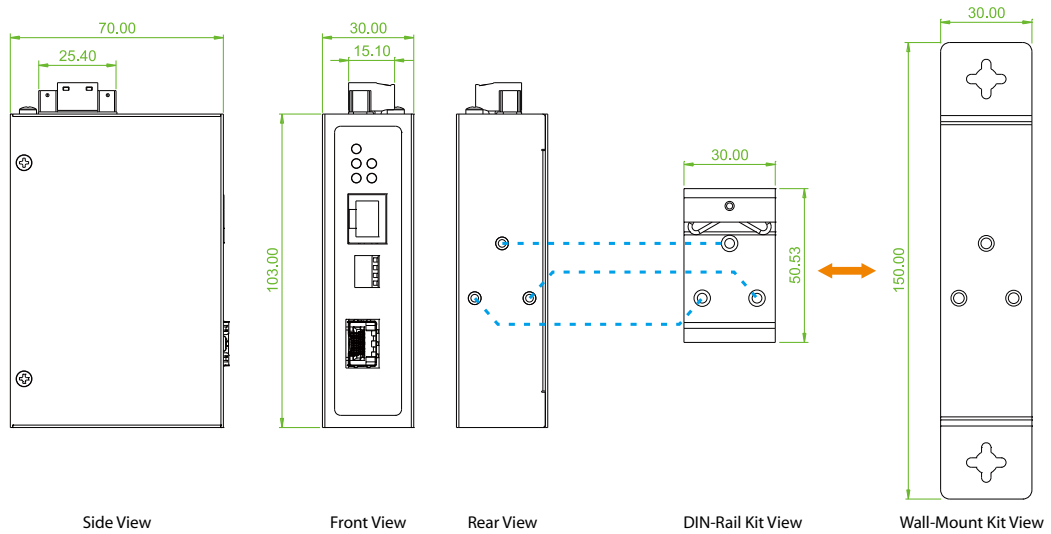
Figure : IMC-1000C(S) Media Converter Transmission

Dimensions

IMC-1000C



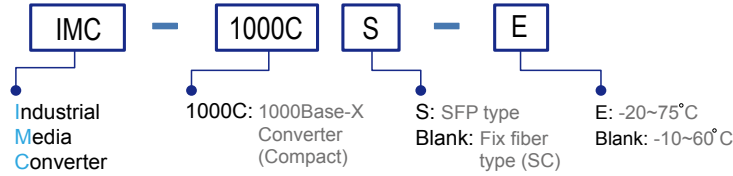
IMC-1000CS



Ordering Information

Model Name	UTP		Fiber		Certification				Operating Temperature
	10/100/1000Base-T	1000Base-X	Dual Speed 100/1000Base-X	Railway EN50121-41	EN61000-6-2 EN61000-6-4	CE	FCC		
IMC-1000C	1	1 SC	—	V	V	V	V	-10~60 C	
IMC-1000C-E	1	1 SC	—	V	V	V	V	-20~75 C	
IMC-1000CS	1	—	1 SFP	V	V	V	V	-10~60 C	
IMC-1000CS-E	1	—	1 SFP	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

Example: IMC – 1000C – E – SC002
 Temperature Connector Type Connectivity Distance

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
IND-WMK03	Wall Mount kit for Industrial product (Compact, 150x 30mm)

SFP Naming Rule

