

**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

<b>Standard</b>	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
<b>RJ45 Ports</b>	10/100/1000Base-TX
<b>Fiber Ports</b>	1000Base SX/LX, SC (IMC-1000C) 100/1000Base-X SFP Slot (IMC-1000CS)
<b>Data Process Architecture</b>	Store and Forward mode or Pass through mode set by DIP SW
<b>Jumbo Frame</b>	9K bytes
<b>Fiber Parameters</b>	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
<b>Link Fault Pass Through (LFPT)</b>	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
<b>DIP Switch</b>	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
<b>Connector</b>	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
<b>LED</b>	Per Unit: Power (Green) SFP/Fiber port Link/Act (Yellow) RJ-45 port: Speed & Link/Act 10/100 (Green), 1000 (Yellow)
<b>Reserve Polarity Protection</b>	Present
<b>Overload Current Protection</b>	Present

<b>Power Supply</b>	12/24/48VDC (9.6~60VDC) or 24VAC (18~36VAC) with polarity reverse protect function and removable terminal block		
<b>Power Consumption</b>	<b>Input Voltage</b>	<b>IMC-1000C</b>	<b>IMC-1000CS</b>
	12VDC	2.1W	1.8W
	24VDC	2.2W	2W
	48VDC	3.4W	2.9W
<b>Removable Terminal Block</b>	Provide for input power (2 Pin)		
<b>Operating Humidity</b>	5% ~ 95% (Non-condensing)		
<b>Operating Temperature</b>	-10 ~ 60°C (IMC-1000C, IMC-1000CS) -20 ~ 75°C (IMC-1000C-E, IMC-1000CS-E)		
<b>Storage Temperature</b>	-40 ~ 85°C		
<b>Housing</b>	Rugged Metal, IP30 Protection and fanless		
<b>Dimensions</b>	70x 30x 103 mm (D x W x H)		
<b>Weight</b>	220g (IMC-1000C)	215g (IMC-1000CS)	
<b>Installation</b>	DIN Rail, or wall mounting (Optional)		
<b>MTBF</b>	325,508 (IMC-1000C)	326,287 (IMC-1000CS)	
	(MIL-HDBK-217)		
<b>Warranty</b>	5 years		
<b>Certification</b>			
<b>EMC</b>	CE		
<b>EMI (Electromagnetic Interference)</b>	FCC Part 15 Subpart B Class A, CE EN55022 Class A		
<b>Railway Traffic</b>	EN50121-4		
<b>Immunity for Heavy Industrial Environment</b>	EN61000-6-2		
<b>Emission for Heavy Industrial Environment</b>	EN61000-6-4		
<b>EMS</b>	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		
<b>Shock</b>	IEC 60068-2-27		
<b>Freefall</b>	IEC 60068-2-32		
<b>Vibration</b>	IEC 60068-2-6		

2 Compact Ind. Unmanaged GbE Converter

## Application & Topology

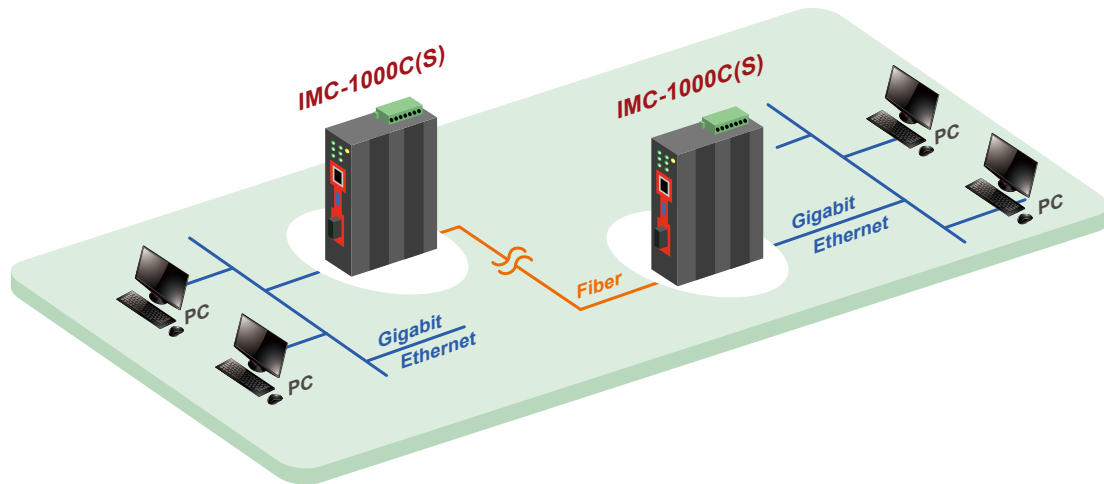
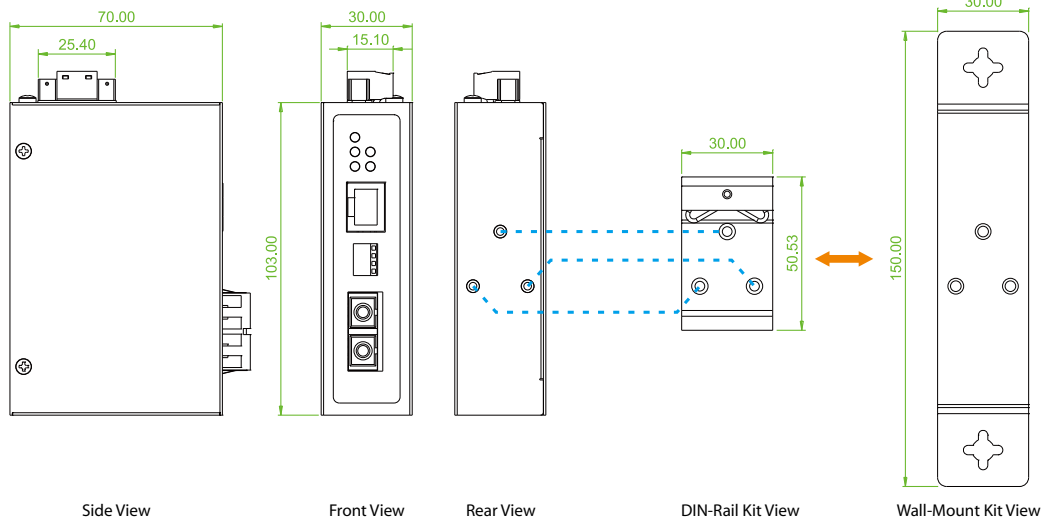


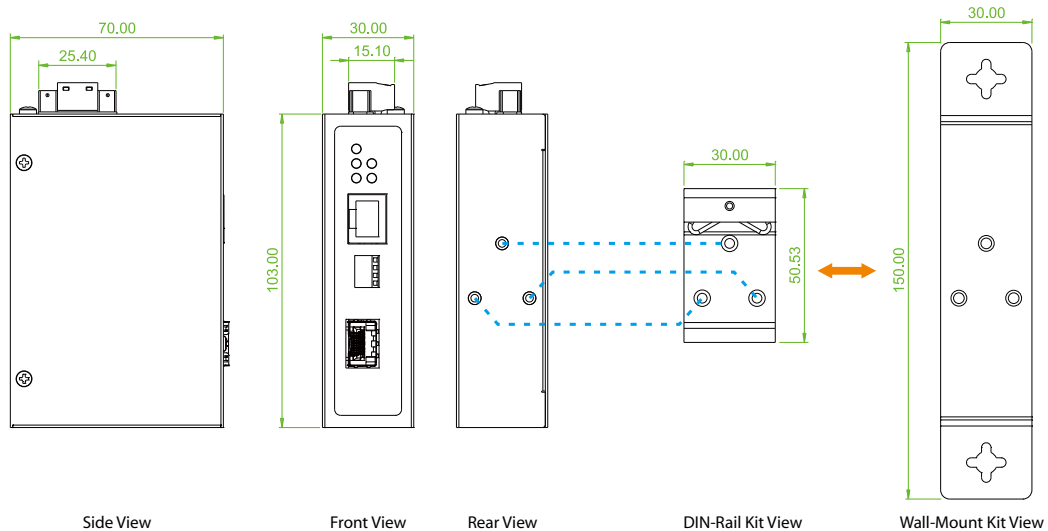
Figure : IMC-1000C(S) Media Converter Transmission

## Dimensions

IMC-1000C



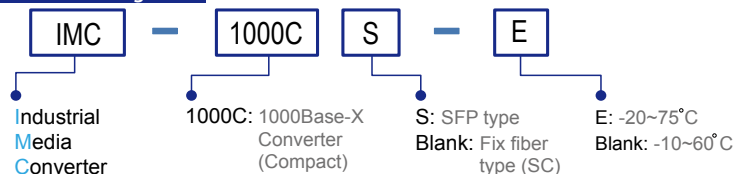
IMC-1000CS



## 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
<b>SC</b>	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

Temperature Connector Type Connectivity Distance

**IMC - 1000C -**  -

Example: IMC - 1000C - E - SC002

### Accessories

<b>DR-4524</b>	Industrial Power, Input 85 ~ 264VAC, Output 24VDC, 48W, -10 ~ +50°C
<b>MDR-40-24</b>	Industrial Power, Input 85 ~ 264VAC, Output 24VDC, 40W, -20 ~ +70°C
<b>IND-WMK03</b>	Wall Mount kit for Industrial product (Compact, 150x30mm)

### SFP Naming Rule

