

# IMC-100C

1x 10/100Base RJ45 to 1x 100Base Fiber (ST/SC), Compact Size



- EN50121-4, CE, FCC, EN61000-6-2, EN61000-6-4 certified
- Supports LFPT (Link Fault Pass Through) and FEF (Far End Fault)
- Provides a DIP-Switch to set functions



IMC-100C is a compact sized, unmanaged industrial grade 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. Standard operating temperature range models (-10 to 60°C) and wide operating temperature range models (-40 to 75°C) fulfill the special needs of industrial automation applications.

## Features

- DC input power 12/24/48VDC (9.6 ~ 60VDC) or 24VAC (18~36VAC)
- IP30 rugged metal housing, compact size and fanless
- Wide operating temperature -40 ~ 75°C (IMC-100C-E)
- Store-and-Forward mode and Pass Through mode (set by DIP SW)
- Conversion between 10/100Base-TX and 100Base-FX cable interface

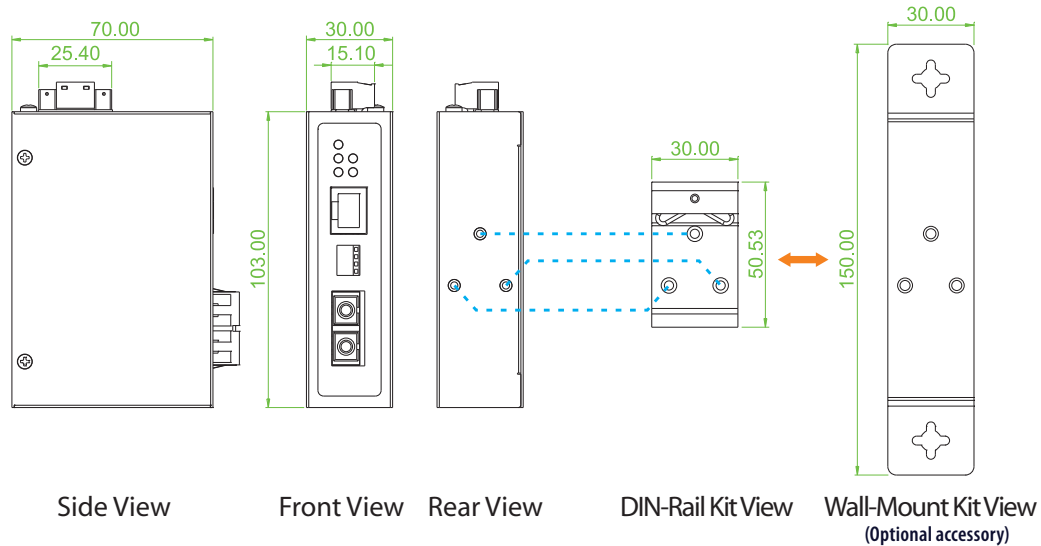
## Specifications

<b>Standard</b>	IEEE 802.3 10Base-T 10Mbit/s Ethernet IEEE 802.3u 100Base-TX, 100Base-FX, Fast Ethernet IEEE 802.3x Flow Control									
<b>RJ45 Ports</b>	10/100Base-TX Auto MDI/MDI-X and Auto-Negotiation Function Supports UTP CAT.5e Twisted Pair cable									
<b>Fiber Ports</b>	100Base-FX (SC/ST connectors)									
<b>Switch Architecture</b>	Store and Forward in Switch mode Supports 1024 MAC addresses in Switch mode									
<b>Ethernet Packet length</b>	2046Byte (Max) in Switch mode									
<b>Jumbo Frame</b>	9K bytes in Pass through (Converter mode)									
<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: 2KM (Multi-mode) 30KM (Single-mode) 50KM (Single-mode)									
<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>Far-End Fault (FEF)</b>	Work with LFPT to prevents data loss									
<b>DIP Switch</b>	Force Fiber port Duplex OFF: Full Duplex      ON: Half Duplex LFPT: ON: Enables LFPT (Link Fault Pass through) OFF: Disables LFPT Architecture: OFF: Switching mode ON: Pass through Converter mode									
<b>Connector</b>	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 Support									
<b>LED</b>	PWR (Green): ON: Power active / OFF: Power is inactive Fiber (Green): LNK/Act (Green) : Link & Active Dup (Green) : Fiber port Full or Half duplex LAN:100 (Green): 100M Link & Active 10 (Green): 10M Link & Active									
<b>Reverse Polarity Protection</b>	Supported for power input									
<b>Overload Current Protection</b>	Supported									
<b>Power Supply</b>	12/24/48VDC (9.6~60VDC) or 24VAC (18~36VAC), polarity reverse protect function and removable terminal block									
<b>Power Consumption</b>	<table border="1"> <thead> <tr> <th>Input Voltage</th> <th>Watt(W)</th> </tr> </thead> <tbody> <tr> <td>12VDC</td> <td>1.8W</td> </tr> <tr> <td>24VDC</td> <td>1.8W</td> </tr> <tr> <td>48VDC</td> <td>2.1W</td> </tr> </tbody> </table>	Input Voltage	Watt(W)	12VDC	1.8W	24VDC	1.8W	48VDC	2.1W	
Input Voltage	Watt(W)									
12VDC	1.8W									
24VDC	1.8W									
48VDC	2.1W									
<b>Removable Terminal Block</b>	Provide for 1x DC input power (2 Pin)									
<b>Operating Humidity</b>	5% ~ 95% (Non-condensing)									
<b>Operating Temperature</b>	-40 ~ 75°C (IMC-100C-E)									
<b>Storage Temperature</b>	-40 ~ 85°C									
<b>Housing</b>	IP30 rugged metal housing ,compact size and fanless									
<b>Dimensions</b>	70 x 30 x 103 mm (D x W x H)									
<b>Weight</b>	215g									
<b>Installation</b>	DIN Rail mounting, Wall Mounting (Optional)									
<b>MTBF</b>	1,558,180 Hours (MIL-HDBK-217)									
<b>Warranty</b>	5 years									

Certifications	
EMC	CE (EN55032, EN55035)
EMI	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

<b>EMS (Electromagnetic Susceptibility) Protection Level</b>	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 (PFMF) 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

## Dimensions



## Ordering Information

Model Name	RJ45 UTP Port	Fiber	Power Input	Certification				Operating Temperature
	10/100Base-TX	100Base-FX	Single power	Railway EN50121-4	EN61000-6-2 EN61000-6-4	CE	FCC	
IMC-100C-E	1	1 SC	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)

### Package List

- IMC-100C device
- Terminal block
- Din Rail with screws

## Optional Accessories

### Wall Mount Kit

IND-WMK03	Wall Mount kit for Industrial product (Compact, 150 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