

IMC-1001C & IMC-1001CS

- ◀ 1x GbE RJ45 to 1x 1000Base-X Fiber (SC) (Compact, Size)
- ▶ 1x GbE RJ45 to 1x 100/1000Base-X SFP (Compact, Size)

- ◆ Supports LFPT (Link Fault Pass Through)
- ◆ Provides a DIP-Switch to Set Functions
- ◆ 12/24/48VDC (9.6~60VDC) Redundant Power input
- ◆ CE and FCC Certified



These compact models are unmanaged industrial grade gigabit Ethernet media converters that support conversion between electrical 10/100/1000Base-T and optical 1000Base-X Ethernet. 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

- IP30 rugged metal housing and fanless
- Wide operating temperature -20 ~ 70°C
- Store-and-Forward mode and Pass through mode (set by DIP SW)
- Conversion between 10/100/1000Base-T and 1000Base-X Fiber cable interface

Specifications

Standard	IEEE 802.3	10Base-T 10Mbit/s Ethernet
	IEEE 802.3u	100Base-TX, 100Base-FX, Fast Ethernet
	IEEE 802.3ab	1000Base-T Gbit/s Ethernet over twisted pair
	IEEE 802.3z	1000Base-X Gbit/s Ethernet over Fiber-Optic
	IEEE 802.3x	Flow Control and Back pressure
RJ45 Ports	10/100/1000Base-T Auto MDI/MDI-X and Auto negotiation Function	
Fiber Ports	1000Base-SX/LX SC (IMC-1001C) / 100/1000Base-X SFP Slot (IMC-1001CS)	
Data Process Architecture	Store and Forward Switch mode or Pass through mode set by DIP SW	
Jumbo Frame	16K Bytes (For Store and Forward Switch 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: (IMC-1001C)	
	500M (Multi-mode SX) / 20KM (Single-mode) / 40KM (Single-mode)	
	Distance depend on SFP Fiber Transceiver (IMC-1001CS)	
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: Store and forward switch mode, ON: Pass through mode
	LFPT	OFF: LFPT Disable, ON: LFPT Enable
	SFP Fiber Speed (IMC-1001CS)	OFF: 1000Base-X, ON: 100Base-FX
Connector	Fiber	
	SC Multi-mode, 500M/ SC Single-mode, 20KM, 40KM (IMC-1001C)	
	SFP Slot (IMC-1001CS)	
	RJ-45 Socket	
	Auto MDI/MDI-X and Auto negotiation Function	

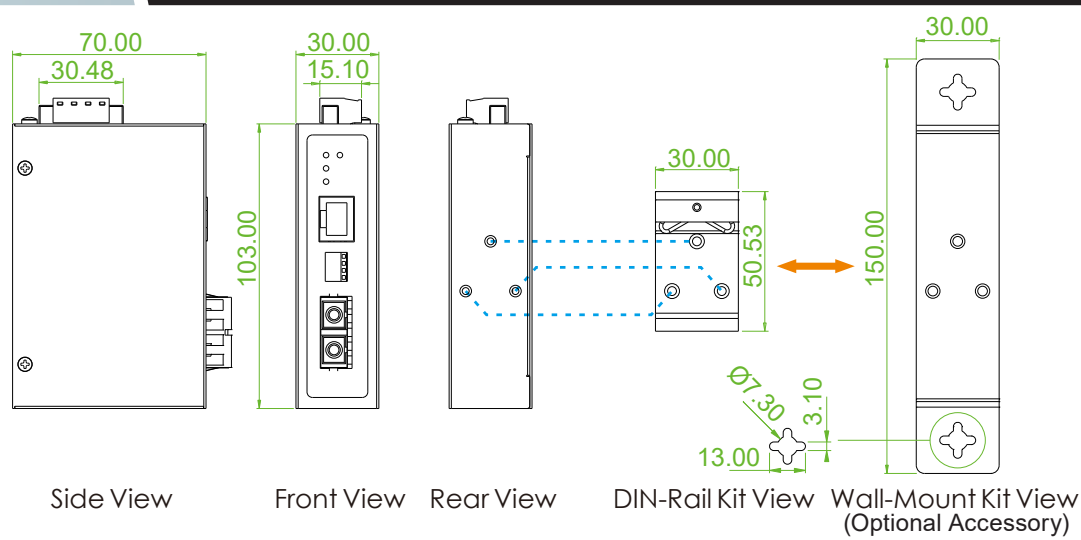
Industrial GbE Media Converter

72

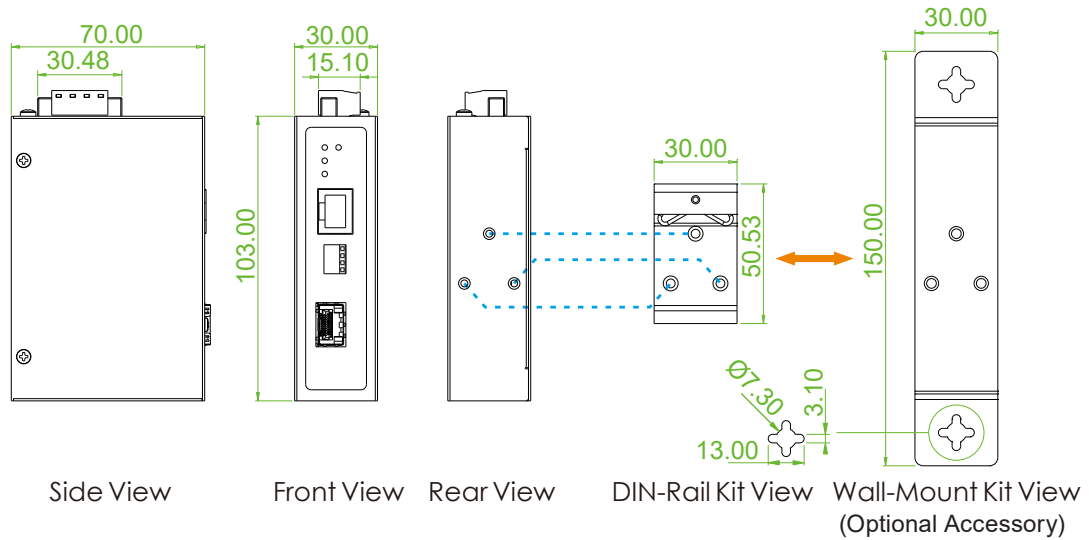
LED	Per Unit: Power 1 (Green), Power 2 (Green) SFP Fiber port Speed & LinK/Act (IMC-1001CS) 100Base-X (Green), 1000Base-X (Amber) SC/ST Fiber port Speed & LinK/Act (IMC-1001C) 1000Base-X (Amber) RJ-45 port: Speed & Link/Act: 10/100 (Green), 1000 (Yellow)			
Reverse Polarity Protection	Supported for power input			
Overload Current Protection	Supported			
Power Supply	12/24/48VDC (9.6~60VDC) Redundant input power with polarity reverse protect function and removable terminal block			
Power Consumption	Input Voltage	12V	24V	48V
	IMC-1001CS	1.8W	2W	2.4W
	IMC-1001C	1.8W	2W	2.4W
Removable Terminal Block	Provides for dual input power, 4 Pin			
Operating Humidity	5% ~ 95% (Non-condensing)			
Operating Temperature	-20 ~ 70°C (IMC-1001C-E, IMC-1001CS-E)			
Storage Temperature	-40 ~ 85°C			
Housing	Rugged Metal, IP30 Protection and fanless			
Dimensions	70 x 30 x 103mm (D x W x H)			
Weight	230g (IMC-1001C) 225g (IMC-1001CS)			
Installation	DIN Rail or wall mounting (Optional)			
MTBF	1,278,798 Hours (IMC-1001C) 1,940,623 Hours (IMC-1001CS) (MIL-HDBK-217)			
Warranty	5 years			
Certification				
EMC	CE (EN55032, EN55035)			
EMI (Electromagnetic Interference)	FCC Part 15 Subpart B Class A, CE			
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			
Shock	IEC 60068-2-27			
Freefall	IEC 60068-2-32			
Vibration	IEC 60068-2-6			

Dimensions

▶ IMC-1001C



► IMC-1001CS



Ordering Information

Model Name	RJ45		Fiber		Power Input	Certification	Operating Temperature
	10/100/1000Base-T(X)	1000Base-X	Dual Speed	100/1000Base-X	Redundant Power	CE, FCC	
IMC-1001C-E	1	SC			12/24/48VDC	V	-20~70°C
IMC-1001CS-E	1		1		12/24/48VDC	V	-20~70°C

Connector Type	Connectivity Distance
SC (IMC-1001C-E only)	001:500M (M/M) 002 : 2km (M/M) 020:20km (S/M) 040:40km (S/M)
	020A: WDM 20km A type (TX:1310nm)
	020B: WDM 20km B type (TX: 1550nm)type

Optional Accessories

■ Wall Mount Kit

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

■ Industrial SFP Transceiver

The ISFP series of industrial grade SFP modules have been fully tested with all CTC Union industrial grade Ethernet switches for guaranteed compatibility and performance. Best performance can be guaranteed, even in mission-critical applications. (Please see CTC Union's Industrial SFP datasheets for more items and detailed information.)

ISFP-M7000-85-D(E)	Industrial SFP GbE 1000Base-SX, M/M, 500 meter, wave length 850nm, 7.5dB, LC, DDMI, -10~70°C (-40~85°C)
ISFP-S7020-31-D(E)	Industrial SFP 1000Base-LX, S/M, 20km, wave length 1310nm, 15dB, LC, DDMI, -10~70°C (-40~85°C)
ISFP-T7T00-00-(E)	Industrial SFP 10/100/1000Base-T UTP 100meter, -10~70°C (-40~85°C)
ISFP-M5002-31-D(E)	Industrial SFP 155M 100Base-FX, MM, 2km, wave length 1310nm, 12dB, LC, DDMI, -10~70°C (-40~85°C)
ISFP-S5030-31-D(E)	Industrial SFP 155M 100Base-FX, SM, 30km, 1310nm, 19dB, LC, DDMI, -10~70°C (-40~85°C)

■ 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