

IMC-1000C

100/1000Base-T to 1000Base-SX/LX Fiber Converter (Compact)

IMC-1000CS

100/1000Base-T to 100/1000Base-X SFP Slot

Fiber Converter (Compact)



These models are unmanaged industrial grade Gigabit Ethernet media converters that support conversion between electrical 10/100/1000Base-T and optical 1000Base-FX 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 (See Figure).

Features

- DC input power 12/24/48VDC (9.6 ~ 60VDC) or 24VAC (18~36VAC)
- IP30 rugged metal housing and fanless
- Wide operating temperature -20 ~ 75°C
- CE, FCC, Railway traffic EN50121-4 certification
- Heavy 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	IEEE002 2 10Daga II 10Mait /s Ethormot				
Stanuaru	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-T Auto MDI/MDI-X and Auto- Negotiation Function Supports UTP CAT.5e Twisted Pair cable				
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	Fiber Cable (Multi-mode): 50/125um, 62.5/125um				
Parameters	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)				
	Distance depend on SFP Fiber Tranceiver (IMC-1000CS)				
Link Fault Pass Through	TX-Fiber: If TX port link down, the media converter will force Fiber port to link down				
(LFPT)	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 OFF: 1000Base-X ON: 100Base-FX (IMC-1000CS)				
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)				

Reverse Polarity Protection	Supported for power input					
Overload Current Protection	Supported					
Power Supply	12/24/48VDC (9.6~60VDC) or 24VAC (18~36VAC) with polarity reverse protect function and removable terminal block					
Power	Input Voltage	IMC-1000C	IMC-1000CS			
Consumption	12VDC	2.1W	1.8W			
	24VDC	2.1W	2W			
	48VDC	3.4W	2.9W			
	40100	5.477	2.311			
Removable Terminal Block Provides for input power (2 Pin)						
Operating Humidity	5% ~ 95% (Non-condensing)					
Operating Temperature	-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	(MIL-HDBK-217) (MC-1000C) 1,789,658 (IMC-1000CS)					
Warranty	5 years					
Certification						
EMC	CE					
EMI (Electromagnetic Interference)	FCC Part 15 Subpart B Class A, CE					
Railway Traffic	EN50121-4					
Immunity for Heavy Industrial Environment	EN61000-6-2					
Emission for Heavy Industrial Environment	EN61000-6-4					

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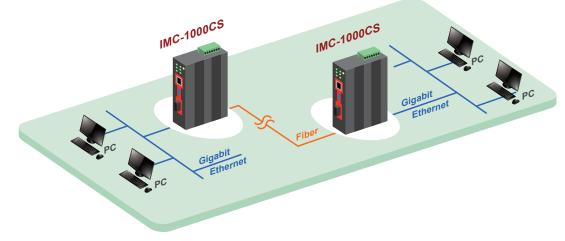
Industrial Unmanaged GbE Converter

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

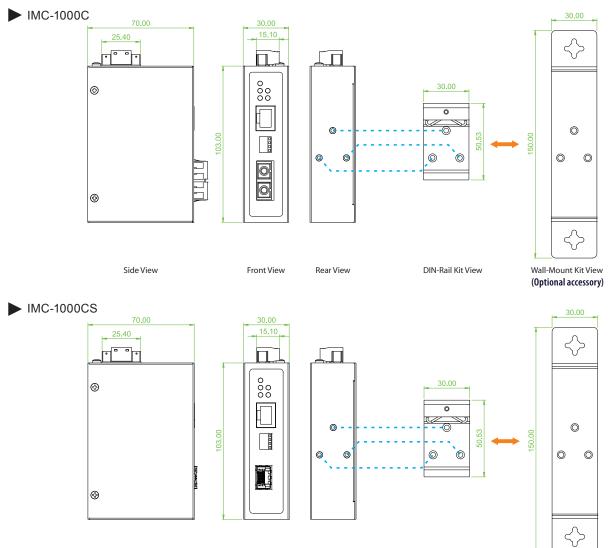
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6

Application

Figure : IMC-1000CS Media Converter Transmission



Dimensions



Front View

Rear View

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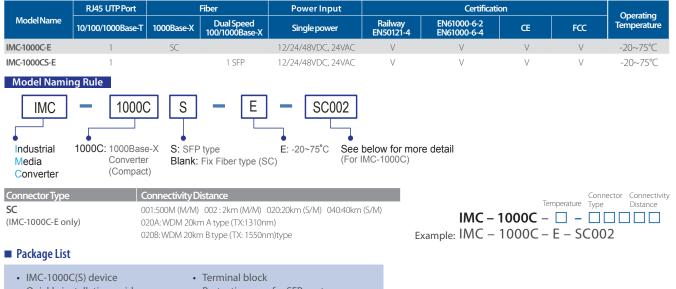
Wall-Mount Kit View (Optional accessory)

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DIN-Rail Kit View

CTC Industrial Unmanaged GbE Converter

Ordering Information



- Quickly installation guide
- Protective caps for SFP ports
- Din Rail with screws

Optional Accessories

Wall mount kit Accessories

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 the IMC-1000CS product for guaranteed compatibility and performance. The best performance can be guaranteed even in mission-critical applications. (Please see CTC Union's Industrial SFP datasheet for more details and more items.)

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

SFP Naming Rule

ISFP •	- [S] [7]	040] — [31]	– D	E	● E:-40~85°C Blank:0~70°C
Industrial SFP Transceiver	M: Multi Mode S: Single Mode T: UTP	9: 10G 7: GbE 5: FE	Distance T00: (UTP) 000: (500m) 002: (2km) 020: (20km) 040: (40km)		D: DDMI Blank: Non DDMI am (Bidi mode A) am (Bidi Mode B)	