

## IMC-1000S

1x GbE RJ45 to 1x 100/1000Base-X SFP



- UL60950-1, 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
- Supports power failure alarm message by relay
- 12/24/48VDC (9.6~60VDC) redundant dual input power



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IMC-1000S is an unmanaged industrial grade GbE media converter that supports conversion between electrical 10/100/1000Base-T and optical 100/1000Base-X 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

- IP30 rugged metal housing and fanless
- Wide operating temperature -20 ~ 75°C
- Store-and-Forward mode and Pass through mode (set by DIP SW)
- Conversion between 10/100/1000Base-T and 100/1000Base-X Fiber cable interface

### Specifications

<b>Standard</b>	IEEE 802.3 10Base-T 10Mbit/s Ethernet IEEE 802.3u 100Base-TX, 100Base-FX, Fast Ethernet IEEE 802.3ab 1000Base-T Gbit/s Ethernet over twisted pair IEEE 802.3z 1000Base-X Gbit/s Ethernet over Fiber-Optic IEEE 802.3x Flow Control
<b>RJ45 Ports</b>	10/100/1000Base-T Auto MDI/MDI-X and Auto-Negotiation Function Supports UTP CAT.5e Twisted Pair cable
<b>Fiber Ports</b>	100Base-X or 1000Base-X SFP slot 100Base-X or 1000Base-X set by DIP SW
<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 SFP, Distance depend on 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>Far-End Fault (FEF)</b>	Work with LFPT to prevents data loss
<b>DIP Switch</b>	Off: Alarm For Power Enable On: Alarm For Power Disable Off: Alarm For Port Enable On: Alarm For Port Disable Off: LFPT Disable On: LFPT Enable Off: Switch Mode On: Converter Mode Off: 1000Base-X On: 100Base-FX
<b>LED</b>	Per Unit: Power 1 (Green), Power 2 (Green), Fault (Amber) LNK/ACT for Fiber(Green): ON: Connected to network/ OFF: Not connected to network/ BLK: Receive /Transmit Data SFP Fiber speed: Yellow: 1000Base-X Green: 100Base-FX RJ-45 port: Speed: 10 (OFF), 100 (Green), 1000 (Yellow) LNK/ACT for RJ45(Green): ON: Connected to network/ OFF: Not connected to network/ BLK: Networking is active
<b>Reverse Polarity Protection</b>	Supported for power input

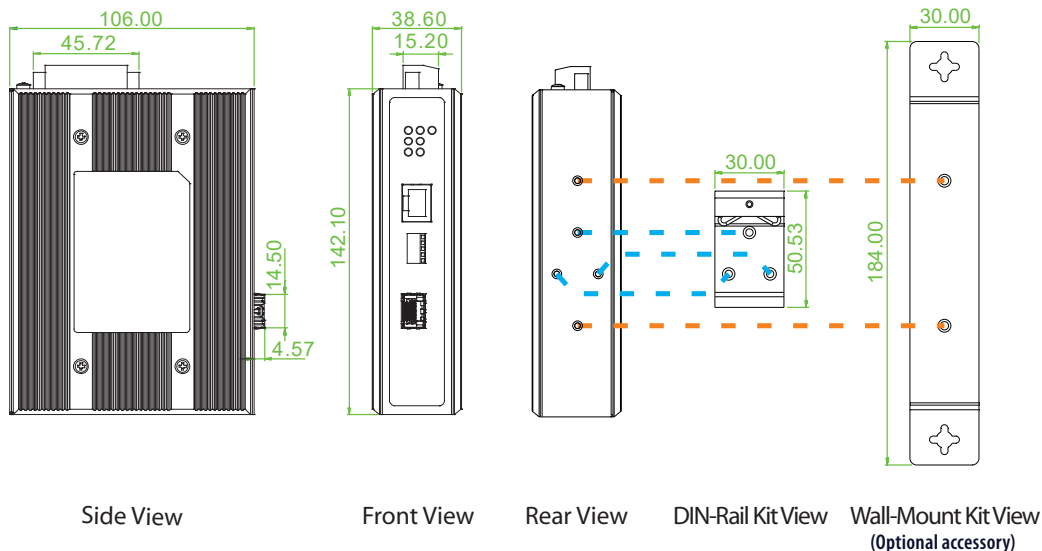
<b>Overload Current Protection</b>	Supported
<b>Power Supply</b>	12/24/48VDC (9.6~60VDC), Redundant power with polarity reverse protect function and removable terminal block
<b>Power Consumption</b>	4.2W
<b>Alarm Relay Contact</b>	Relay outputs with current carrying capacity of 1 A @24VDC
<b>Removable Terminal Block</b>	Provides 2 Redundant power, Alarm relay contact
<b>Operating Humidity</b>	5% ~ 95% (Non-condensing)
<b>Operating Temperature</b>	-20 ~ 75°C (IMC-1000S-E)
<b>Storage Temperature</b>	-40 ~ 85°C
<b>Housing</b>	Rugged Metal, IP30 Protection and fanless
<b>Dimensions</b>	106 x 38.6 x 142 mm (D x W x H)
<b>Weight</b>	620g
<b>Installation</b>	DIN Rail mounting, or wall mounting (Optional)
<b>MTBF</b>	1,198,203 Hours 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
<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

Industrial Unmanaged GbE Media Converter IMC-1000S

<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 (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>Safety</b>	UL60950-1
<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
	10/100/1000 Base-T	Dual Speed 100/1000Base-X	Redundant	Safety UL60950-1	Railway EN50121-4	EN61000-6-2 EN61000-6-4	CE	FCC	
IMC-1000S-E	1	1 SFP	12/24/48VDC	V	V	V	V	V	-20~75°C

### Package List

- IMC-1000S device
- Terminal block
- Din Rail with screws
- Protective caps for SFP ports

## Optional Accessories

### Wall Mount Kit

**IND-WMK01** Wall Mount kit for Industrial product, 184 x 30mm

### Industrial SFP Transceiver

The ISFP series of industrial grade SFP modules have been fully tested with the IMC-1000S 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.)

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

### Industrial Power Supply

<b>MDR-20-24</b>	Industrial Power, Input 85 ~ 264VAC/120 ~ 370VDC, Output 24VDC, 24W, -20 ~ +70°C
<b>MDR-40-48</b>	Industrial Power, Input 85 ~ 264VAC/120 ~ 370VDC, Output 48VDC, 40W, -20 ~ +70°C