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

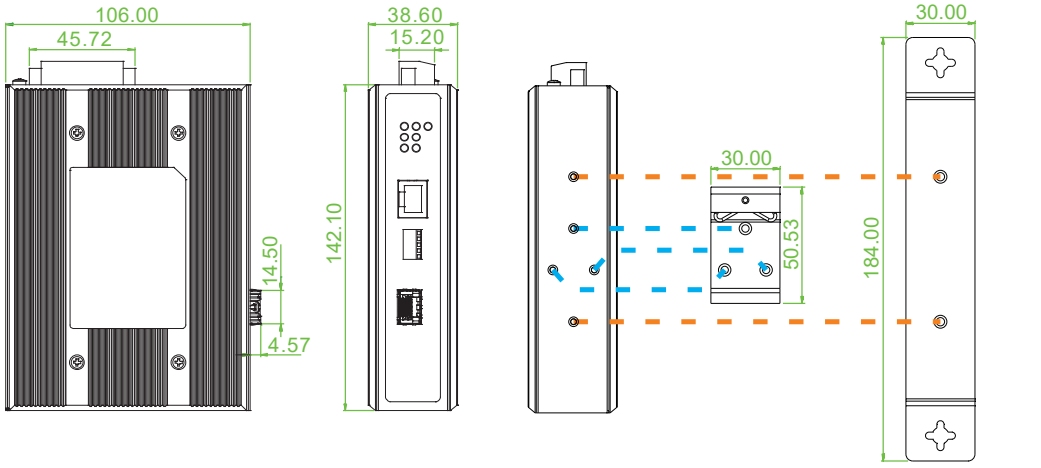
Specifications

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
RJ45 Ports	10/100/1000Base-T Auto MDI/MDI-X and Auto-Negotiation Function Supports UTP CAT.5e Twisted Pair cable
Fiber Ports	100Base-X or 1000Base-X SFP slot 100Base-X or 1000Base-X set by DIP SW
Data Process Architecture	Store and Forward mode or Pass through mode set by DIP SW
Jumbo Frame	9K bytes
Fiber Parameters	Fiber Cable (Multi-mode): 50/125um, 62.5/125um
	Fiber Cable (Single-mode): 9/125um
	SFP, Distance depend on Fiber Tranceiver
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
Far-End Fault (FEF)	Work with LFPT to prevents data loss
DIP Switch	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
LED	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
Reverse Polarity Protection	Supported for power input
Overload Current Protection	Supported
Power Supply	12/24/48VDC (9.6~60VDC) , Redundant power with polarity reverse protect function and removable terminal block
Power Consumption	4.2W
Alarm Relay Contact	Relay outputs with current carrying capacity of 1 A @24VDC
Removable Terminal Block	Provides 2 Redundant power, Alarm relay contact
Operating Humidity	5% ~ 95% (Non-condensing)
Operating Temperature	-20 ~ 75°C (IMC-1000S-E)
Storage Temperature	-40 ~ 85°C
Housing	Rugged Metal, IP30 Protection and fanless
Dimensions	106 x 38.6 x 142 mm (D x W x H)
Weight	620g
Installation	DIN Rail mounting, or wall mounting (Optional)
MTBF	1,198,203 Hours MIL-HDBK-217
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

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

Safety	UL60950-1
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6

Dimensions



Side View | Front View | Rear View | DIN-Rail Kit View | Wall-Mount Kit View (Optional accessory)

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℃

Package List

- IMC-1000S device
- Din Rail with screws
- Terminal block
- 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.)

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

Industrial Power Supply

MDR-20-24	Industrial Power, Input 85 ~ 264VAC/120 ~ 370VDC, Output 24VDC, 24W, -20 ~ +70℃
MDR-40-48	Industrial Power, Input 85 ~ 264VAC/120 ~ 370VDC, Output 48VDC, 40W, -20 ~ +70℃