IMC-100M-PH12

10/100Base-TX to 100Base-FX with PoE+ PSE Managed Fiber Converter

(30Watts, 12V Booster)

NEW

IMC-100M-PH12 is a family of Managed Fast Ethernet media converters that support conversion between electrical 10/100Base-TX and optical 100Base-FX Ethernet and as PSE (Power Source Equipment) provide PoE+ power over Ethernet. Housed in rugged DIN rail or wall mountable enclosures, these converters are designed for harsh environments, such as industrial networking, intelligent transportation systems (ITS) and are also suitable for many military and utility market applications where environmental conditions exceed commercial product specifications.

Features

- Conversion between 10/100Base-TX and 100Base-FX Fiber cable interface
- 12/24/48VDC (9.6~57VDC) Redundant dual input power, and built-in power booster
- Constant and regulated PoE output voltage at 55VDC
- Provides IEEE802.3at PoE output (30Watts)
- IP30 rugged metal housing
- Wide operating temperature -20~75°C (IMC-100M-PHE12)
- UL60950-1, CE, FCC, Railway traffic EN50121-4 certification
- Industrial grade EMS, EMI EN61000-6-2, EN61000-6-4 certification
- Supports Jumbo frame 9K bytes packet
- Ingress/Egress bandwidth control with 64K granularity
- SNMP alarm trap for power loss and port link down
- PoE Configuration and Monitor
- Auto Laser Shutdown (ALS)
- Digital diagnostic DDM for SFP support
- Supports 16 IEEE802.1Q Tag VLAN Group
- RMON counters
- Web based management, **SNMP** for management
- **SmartView** Management System

Specifications

Standard	IEEE802.3 10Base-T
	IEEE802.3u 100Base-TX
	IEEE802.3u 100Base-FX
	IEEE802.3x Flow Control and Back pressure
	IEEE802.3at PoE+
	IEEE802.3af PoE
	IEEE802.1q Tag VLAN
Fiber Ports	100Base-FX
RJ45 Ports	10/100Base-TX
Push Button	Reset, Load Default Setting
Data Process Architecture	Pass through mode
Jumbo Frame	9K bytes
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: 2KM (Multi-mode) 30KM (Single-mode) 50KM(Single-mode)
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
Connector and Pin Assignment	Fiber: SC (Multi-mode, 2KM), SC (Single-mode, 30KM, 50KM)
	RJ-45 Socket: CAT-3/5 (10/100Mbps) Twisted Pair cable
	Auto MDI/MDI-X and Auto-Negotiation Function Support
	RJ-45 Port support IEEE 802.3at/af End-Span, Alternative A mode
	Positive (V+): RJ-45 pin 1, 2
	Negative (V-): RJ-45 pin 3, 6
	Data (1,2,3,6)
LED	Per Unit : Power 1 (Green), Power 2 (Green), Fault (Amber)
	Fiber LNK/ACT (Green): ON: Connected to network, OFF: Not connected to network, BLK: Receive /Transmit Data
	RJ-45 Port: Speed: 10 (OFF) ,100 (Green)
	LNK/ACT for RJ45(Green): ON: Connected to network, OFF: Not connected to network, BLK: Networking is active
	PoE Status (Green): Flash: PoE Fault (Over-load or short), ON: PoE normal working, OFF : PoE No Power output

Reverse Polarity Protection	Present for Power Input
Overload Current Protection	Present
Power Supply	"12/24/48VDC (9.6~57VDC), Redundant power with polarity reverse protect function and removable terminal block"
Alarm Relay Contact	Relay outputs with current carrying capacity of 1 A @24VDC
Removable Terminal block	Provide 2 Redundant power, Alarm relay contact, 7 Pin
Operating Humidity	5%~95% (Non-condensing)
Operating Temperature	-10°C~60°C (IMC-100M-PH12)
	-20°C~75°C (IMC-100M-PHE12)
Storage Temperature	-40°C~85°C
Housing	Rugged Metal, IP30 Protection
Dimensions	106 X 38.6 X 142 mm (D x W x H)
Installation Mounting	DIN Rail mounting or wall mounting
EMI	FCC Part 15 Subpart B Class A
	CE EN 55022 Class A
	EN 61000-6-4 - Emission for industrial environment
EMS	EN 61000-6-2 – Immunity for Industrial environment
	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 (Magnetic Field) Level 3, Criteria A
Safety	UL60950-1 (pending)
Rail traffic	EN 50121-4
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6
MTBF	TBD (Above 30 years)
Warranty	5 years

Software Specifications

Management	Ingress/Egress Bandwidth control with 64K granularity
	Firmware upgrade via Web
	SNMP V1/V2c Management
	Web Management
	Supports DHCP client for automatic TCP/IP configuration
	Supports 802.1Q tag VLAN,16Tag VLAN Group,
	RMON Counters Display
	Configuration : IP configuration, password setting, converter configuration, port configuration, MIB counter, SNMP configuration, VLAN group configuration, alarm configuration

Management	Converter, Port, Alarm Configuration
Diagnostic & Monitor	Supports Link Fault Pass-through (LFP) Function
	Supports DDM Diagnostic function for SFP fiber transceiver
	Broadcast/Multicast storm filter
	SNMP alarm trap for Power loss and Port link down
PoE Configuration & Monitor	PoE Output Enable/Disable
	PoE power output setting

Application

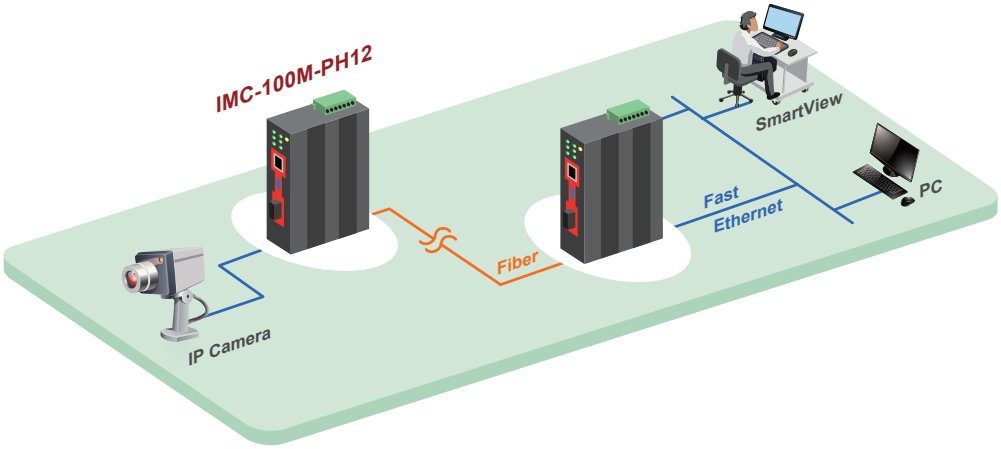
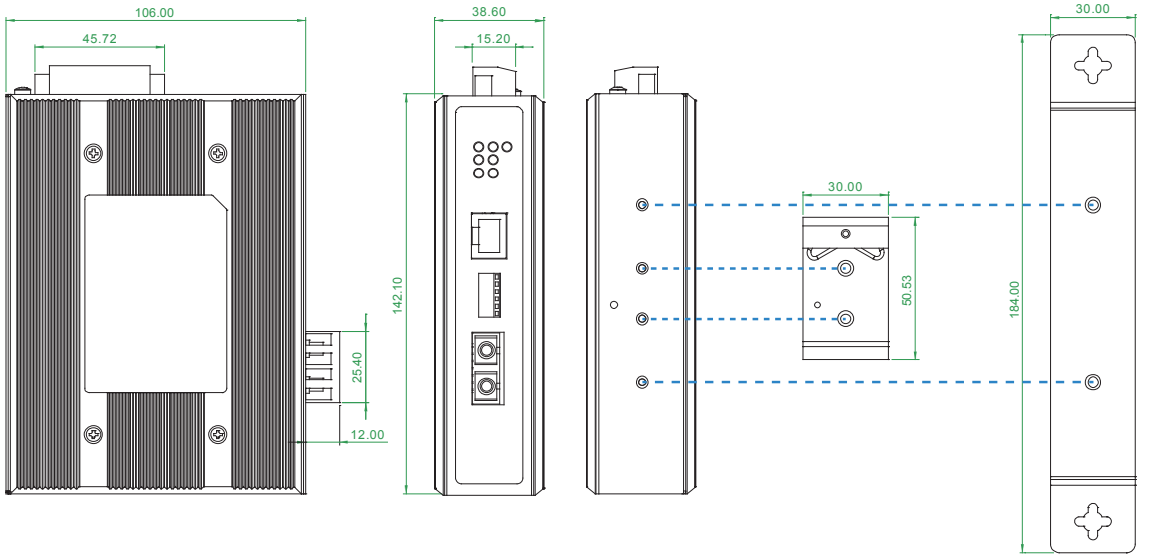


Figure : IMC-100M-PH12 Industrial PoE Transmission

Dimensions



Side View | Front View | Rear View | DIN-Rail Kit View | Wall-Mount Kit View

Ordering Information

Model Name	Description
IMC-100M-PH12	10/100Base-TX to 100Base-FX Managment With PoE+ (PSE) Fiber Converter (30W, 12V Booster) (-10~60℃)
IMC-100M-PHE12	10/100Base-TX to 100Base-FX IP Managment With PoE+ (PSE) Fiber Converter (30W, 12V Booster) (-20~75℃)

Fiber Connector Type	Connectivity Distance
SC	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)

Accessories

DR-4524	Industrial Power, Input 85 ~ 264VAC, Output 24VDC, 48W, -10 ~ +50℃
MDR-40-24	Industrial Power, Input 85 ~ 264VAC, Output 24VDC, 40W, -20 ~ +70℃
MDR-60-24	Industrial Power, Input 85 ~ 264VAC, Output 24VDC, 60W, -20 ~ +70℃

Temperature | Connector Type | Connectivity Distance

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Example: IMC-100M -PHE12 - SC002