## **Industrial Fast Ethernet Media Converter**

# **12** IMC-100C

### 1x FE RJ45 to 1x 100Base-FX Fiber (ST/SC), Compact Size

Supports LFPT (Link Fault Pass Through) and FEF (Far End Fault)
Provides a DIP-Switch to Set Functions

» EN50121-4, EN61000-6-2, EN61000-6-4, CE and FCC Certified





The industrial grade compact size unmanaged 100M Ethernet media converter that supports conversion between electrical 10/100Base-TX and optical 100Base-FX 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. Wide operating temperature range models (-40 to 75°C) fulfill the special needs of industrial automation applications.

#### Features

- DC power input 12/24/48VDC (9.6 ~ 60VDC) or 24VAC (18~36VAC)
- IP30 rugged metal housing, compact size and fanless
- Wide operating temperature -40 ~ 75°C
- Store-and-Forward mode and Pass Through mode (set by DIP SW)
- Conversion between 10/100Base-TX and 100Base-FX cable interface

Specifications			
Standard	IEEE 802.3	10Base-T 10Mbit/s Ethernet	
	IEEE 802.3u	100Base-TX, 100Base-FX, Fast Ethernet	
	IEEE 802.3x	Flow Control	
RJ45 Ports	10/100Base-TX Auto MDI/MDI-X and Auto negotiation Supports UTP CAT.5e Twisted Pair cable		
Fiber Ports	100Base-FX (SC/ST connectors)		
Switch Architecture	Store and Forward in swite	ch mode	
	Supports 1024 MAC addresses in switch mode		
Ethernet Packet length	2046Byte (Max) in Switch mode		
Jumbo Frame	9K bytes in Pass through (Converter 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: 2KM (Multi-mode) / 301	KM (Single-mode) / 50KM (Single-mode)	
Link Fault Pass Through	TX- Fiber: If TX port link do	own, 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		
Far-End Fault (FEF)	Work with LFPT to prevents data loss		
DIP Switch	Force Fiber port Duplex OFF: Full Duplex / ON: Half Duplex		
	LFPT ON: Enables LFPT (Link Fault Pass Through) / OFF: Disables LFPT		
	Architecture OFF: Switching mode /	ON: Pass through converter mode	

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Connector	Fiber SC (Multi-mode, 2km), SC (Single-mode, 30km, 50KM) ST (Multi-mode, 2km), ST (Single-mode, 30km, 50KM)				
	RJ-45 Socket				
	CAT.5e (10/100Mbps) Twisted Pair cable				
LED	Auto MDI/MDI-X and Auto negotiation Function				
LED	PWR (Green): ON: Power active / OFF: Power is inactive				
	Fiber (Green): LNK/Act (Green) : Link & Active, Duple (Green ) : Fiber port Full or Half duplex				
	LAN: 100 (Green): 100M Link & Active / 10 (Green): 10M Link & Active				
<b>Reverse Polarity Protection</b>	Supported for power input				
Overload Current Protection	Supported				
Power Supply	12/24/48VDC (9.6~60VDC) or 24VAC (18~36VAC), polarity reverse protect function and removable terminal				
	block				
Power Consumption	Input Voltage Watt(W)				
	12VDC 1.8W				
	24VDC 1.8W				
	48VDC 2.1W				
Removable Terminal Block	Provide for 1x DC input power (2 Pin)				
	5% ~ 95% (Non-condensing)				
<b>Operating Temperature</b>					
Storage Temperature	-40 ~ 85°C				
Housing	IP30 rugged metal housing ,compact size and fanless				
Dimensions	70 x 30 x 103mm (D x W x H)				
Weight					
Installation	DIN Rail mounting, Wall Mounting (Optional)				
MTBF	1,558,180 Hours (MIL-HDBK-217)				
Warranty	5 years				
Certification					
EMC	CE (EN55032, EN55035)				
EMI	······································				
Railway Traffic	EN50121-4				
Immunity for Heavy Industrial Environment	EN 61000-6-2				
Emission for Heavy Industrial Environment	EN 61000-6-4				
EMS (Electromagnetic	EN61000-4-2 (ESD) Level 3, Criteria B				
Susceptibility)	EN61000-4-3 (RS) Level 3, Criteria A				
Protection Level	EN61000-4-4 (EFT) Level 3, Criteria A				
	EN61000-4-5 (Surge) Level 3, Criteria B				
	EN61000-4-6 (CS) Level 3, Criteria A				
<u>.</u>	EN61000-4-8 (PFMF) Field strength 300A/m Criteria A				
Shock	IEC 60068-2-27				
Freefall	IEC 60068-2-32				
Vibration	IEC 60068-2-6				

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**Dimensions** 

#### 30.00 70.00 30.00 25.40 15.10 $\Leftrightarrow$ $\square$ ĹП 0 00 00 30.00 4 $\bigcirc$ 0 0 103.00 150.00 0000 0 $\bigcirc$ 0 0 $\bigcirc$ $\bigcirc$ 0 0 \$ $\Leftrightarrow$ Side View **DIN-Rail Kit View** Front View Rear View Wall-Mount Kit View (Optional Accessory)

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

Connector Type	Connectivity Distance
SC, ST (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
	* MOQ is requested for ST type

## **Optional Accessories**

#### Wall Mount Kit

IND-WMK03

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

#### 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