



Compact Industrial Media Converter

HMC-IMF2MSC



The Hepda HMC-IMF Series is a compact, industrial-grade media converter that bridges 10/100Base-TX copper Ethernet to 100Base-FX fiber optic networks. Designed for seamless protocol conversion, it supports both single-mode and multimode fiber with single or dual-core (BiDi) configurations, enabling flexible deployment in industrial environments.

Housed in a compact IP40-rated aluminum enclosure with wall-mount installation, the HMC-IMF2MSC accepts universal DC 12V / 24V or AC 24V terminal block power inputs and operates from -20 to +70°C. Its plug-and-play design with Auto-Negotiation and MDI/MDI-X auto-crossover eliminates manual configuration, while a DIP-switch-selectable Link Fault Pass Through (LFP) feature ensures end-to-end link monitoring.

Main Features

- Converts 10/100Base-TX copper to 100Base-FX fiber — single-mode or multimode
- Full/Half duplex, Auto-Negotiation, Auto MDI/MDI-X — no crossover cables needed
- Universal power: DC 12V / DC 24V / AC 24V terminal block inputs, Plug-and-Play
- Single or dual-core (BiDi) fiber with SC or ST connector options
- DIP-switch selectable Link Fault Pass Through (LFP) for end-to-end monitoring
- IP40 aluminum case, passive fanless cooling, -20 to +70°C operating temperature

Hardware & Performance Specifications

	HMC-IMF2MSC	HMC-IMF2SSC	HMC-IMF1SABSC
Hardware			
RJ45 Port	1×10/100BASE-TX RJ45, Auto-Negotiation, Auto MDI/MDI-X	1×10/100BASE-TX RJ45, Auto-Negotiation, Auto MDI/MDI-X	1×10/100BASE-TX RJ45, Auto-Negotiation, Auto MDI/MDI-X
Fiber Port	1×100BASE-FX SC	1×100BASE-FX SC	1×100BASE-FX SC
Fiber Mode	Multimode 62.5/125µm	Singlemode 9/125µm	Singlemode 9/125µm

Max. Distance	2km	20km	20km
Wavelength	1310nm	1310nm	TX: 1310nm / RX: 1550nm
Fiber Cores	2-Fiber (Duplex)	2-Fiber (Duplex)	1-Fiber (BiDi)
Connector	SC (ST as option)	SC	SC
Conversion Performance			
Transmission Mode	Store-and-Forward	Store-and-Forward	Store-and-Forward
Max. Packet Length	10K bytes	10K bytes	10K bytes
Forward Rate (10M)	14,880 pps	14,880 pps	14,880 pps
Forward Rate (100M)	148,800 pps	148,800 pps	148,800 pps
Port Mode	Full/Half Duplex, Auto-Negotiation	Full/Half Duplex, Auto-Negotiation	Full/Half Duplex, Auto-Negotiation
Link Fault Pass-Thru	DIP Switch selectable (ON/OFF)	DIP Switch selectable (ON/OFF)	DIP Switch selectable (ON/OFF)
Enclosure / IP	IP40 Aluminum Case	IP40 Aluminum Case	IP40 Aluminum Case
Power Supply			
Input Power	DC 12V / DC 24V / AC 24V (Terminal Block)	DC 12V / DC 24V / AC 24V (Terminal Block)	DC 12V / DC 24V / AC 24V (Terminal Block)
Power Consumption	2.4W Max (0.2A @ 12VDC)	2.4W Max (0.2A @ 12VDC)	2.4W Max (0.2A @ 12VDC)
Installation	Wall Mount	Wall Mount	Wall Mount
Dimension	38.5×95×24.5 mm	38.5×95×24.5 mm	38.5×95×24.5 mm
Weight	120g bare / 250g packaged	120g bare / 250g packaged	120g bare / 250g packaged
Environmental			
Operating Temperature	-20°C ~ +70°C	-20°C ~ +70°C	-20°C ~ +70°C
Storage Temperature	-40°C ~ +85°C	-40°C ~ +85°C	-40°C ~ +85°C
Operating Humidity	5% ~ 90% (non-condensing)	5% ~ 90% (non-condensing)	5% ~ 90% (non-condensing)
MTBF	>500,000 hrs @ MIL-HDBK-217F GF 25°C	>500,000 hrs @ MIL-HDBK-217F GF 25°C	>500,000 hrs @ MIL-HDBK-217F GF 25°C
Cooling / Noise	Passive Cooling / 0 dBA	Passive Cooling / 0 dBA	Passive Cooling / 0 dBA

LED Indicator Description	
PWR	ON = Device is powered on
LINK/ACT	Steady = Valid network connection; Flashing = Transmitting/Receiving data
SPD	Yellow = 100BASE-TX active; OFF = 10BASE-TX active
FX/SPD & FX/LNK	Green = 100BASE-FX; Steady = FX link up; Flashing = FX activity

Regulatory & Compliance	
Standard Compliance	IEEE 802.3 10BASE-TX; IEEE 802.3u 100BASE-TX/FX; IEEE 802.3x Flow Control
ISO	Manufactured in ISO-9001 certified facility
Safety	IEC 62368-1:2020 + A11:2020
EMI	FCC Part 15B Class A; IEC 61000-3-2

EMS	IEC 61000-4-2 ESD: Contact $\pm 8\text{kV}$, Air $\pm 15\text{kV}$; IEC 61000-4-5 Surge: Power $\pm 4\text{kV}$, RJ45 $\pm 2\text{kV}$
Shock	IEC 60068-2-27
Free Fall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Environmental	RoHS 2011/65/EU Annex II (EU)
Warranty	3 Years

Mechanical Dimensions

Unit: mm

