

# MC250-4T/1FS

## 4-Port Ethernet to Fiber Industrial Media Converter

### Overview

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IFS Ethernet to Fiber Industrial Media Converters offer four 10/100Mbps Ethernet ports and 100Base-FX transmission on either multi-mode or single mode optical fiber for optimum bandwidth usage. Specifically designed for stable and reliable operation in electrically harsh and climatically demanding environments, the module's slim, IP-30 standard metal case accommodates DIN-rail or wall mounting for efficient installation in multiple applications. These converters are engineered with a high-performance switch architecture capable of providing a non-blocking switch fabric and wire-speed throughput as high as 1Gbps or 1.2Gbps. With its 2K MAC address table, these media converters offer wire-speed packet transfer performance without the risk of packet loss. The Flow Control function allows these modules to deliver fast and reliable data transfer. Available in multi-mode or single-mode configurations, the converters deliver distances of up to 2km or 15km respectively. Providing extended distance Ethernet transmission, these units are well suited for remotely deployed edge devices such as IP cameras, access control, VoIP and wireless access points. IFS also provides a multi-mode dual-fiber version for drop and repeat network topologies.



### Details

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- 4 RJ-45 Ports 10/100Base-TX
- Auto MDI/MDI-X
- Auto-negotiation
- 1 Fiber Port 100Base-FX MM or SM Fiber
- Complies with the IEEE 802.3, IEEE 802.3u, Fast Ethernet standard
- Store-and-Forward switching architecture with wire-speed filtering and forwarding rates
- Prevents packet loss with back pressure (half-duplex) and IEEE 802.3x PAUSE frame-flow control (full-duplex)
- Robust Hardened Design
- Provides either DIN-rail or wall-mounting
- 12 ~ 48VDC, redundant power with reverse-polarity protection
- Voltage/surge-suppression
- Complies with IEC60068-2-xx standards for free-fall,
- shock and vibration
- Wide operating temperature range of up to -40°C ~ +75°C



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### Technical Specifications

#### General

Type	Ethernet to Fixed Optics
Switch throughput (Mpps)	0.744
Mac table	2 K
Fault relay output	Yes

#### Connections

Fiber port type	Single mode
Fiber port speed	100Base FX
Fiber distance	15 km
Fiber connector	SC
Port speed	Fast
No. of ports	4
Port type	10/100
Fiber port	1
Wavelength	1310 nm

#### Physical

Physical dimensions	135 x 87 x 32 mm
Net weight	437 g
Switch fabric	1 Gbps
Mounting type	DIN-rail, Wall mount

#### Environmental

Operating temperature	-40 to +75°C
IP-rating	IP30
MTBF:	> 100,000 Hrs @ 25°C
Operating Temperature:	-10°C ~ 75°C
Storage Temperature:	-40°C ~ 85°C
Relative Humidity:	0% ~ 90% (non-condensing)

#### Electrical

Power supply type	12 to 48 VDC
Power consumption	9 W
PoE	No

#### RJ45 Ports

10/100Base-TX Connectors:	RJ-45 (4); Auto-negotiate and Auto MDI/MDI-X support
Throughput (packet per second):	148,800pps
Switch Architecture:	Store-and-forward
Max Packet Size:	1522 Bytes
Electro Static Discharge (ESD) Protection:	6KVDC

#### Fiber Ports

100Base-FX SC Connectors:	1
Optical Fiber Type:	Single-mode (9/125µm)
Optical Distance:	15km

#### Optical

Optical Wavelength:	1310nm
TX Launch Power (dBm):	Max:0, Min: -20
Receiver Sensitivity (dBm):	32
Maximum Input Power (dBm):	0

#### Switch Performance

Switch Architecture:	Store-and-Forward
Switch Fabric:	1Gbps / non-blocking
Throughput (Packet per second):	0.744Mpps@64bytes
Address Table:	2K entries
Shared Data Buffer:	1Mbit on-chip frame buffer
Maximum Frame Size:	1522 Bytes packet
Flow Control:	Back pressure for Half-Duplex, IEEE 802.3x PAUSE Frame for Full-Duplex

#### LED Indicators

Power:	Power input 1 – Green; Power input 2 – Green
Power Fault:	Proper Operation – Off; Fault – Green
RJ-45 (10/100Mbps):	100Mbps Activity – Green; 10Mbps Activity – Off
Fiber (100Base-FX):	Connected to network – Green
Optical Link:	Link established – Steady Green; TX/RX Activity – Blinking green

#### Electrical & Mechanical

Supply Voltage:	12~48VDC, Redundant power with polarity-reverse protection function
Power Consumption:	9.1Watts / 31BTU max.
Electrical Fast Transient (EFT) Protection:	6KVDC
Power and Alarm Fault Connector:	6-pin removable screw terminal
Alarm Fault Relay:	Provides one relay output for power failure notification; 24VDC – 1A max.
Enclosure:	IP-30 slim-type metal enclosure
Mounting:	DIN-rail kit and wall-mount ears
Dimensions (in/cm) (W x D x H):	5.31 x 3.42 x 1.26 in. (13.5 x 8.7 x 3.2cm)
Weight (lbs/kg):	0.965 lbs/0.437kg

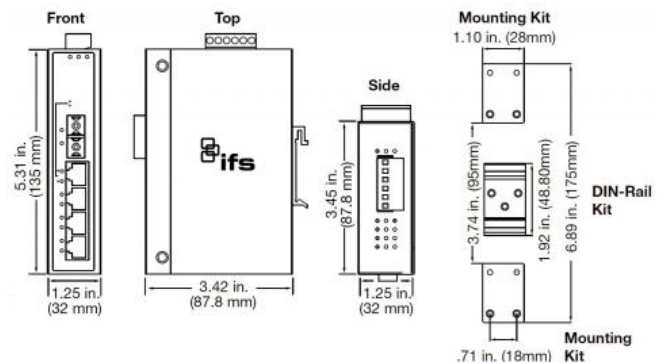
#### Accessories

613P-EU:	100-240V AC Input 13.5V DC 1.3Amp Output Power Supply Brick model EU plug
613P-UK:	100-240V AC Input 13.5V DC 1.3Amp Output Power Supply Brick model UK plug
PS48VDC240W-EU:	100-240V AC Input 48V DC 5A Output Power Supply Hardened Brick model with EU plug
PS48VDC240W-UK:	100-240V AC Input 48V DC 5A Output Power Supply Hardened Brick model with UK plug



# MC250-4T/1FS

4-Port Ethernet to Fiber Industrial Media Converter



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