



## Product Data Sheet

# MC251-4P/1S

## 4-Port Ethernet to SFP Industrial Media Converter

### Overview

IFS Ethernet to SFP Industrial Media Converters offer four 10/100Mbps Ethernet ports and 100Base-FX transmission on either multi-mode or single mode optical utilizing SFP technology. 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 the 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. The MC251-4P/1S model provides full IEEE802.3-af (15.4w) on each individual 4 ports, while the MC250-4T/2S model is a non-PoE unit designed for drop-and-repeat applications.

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.



### Standard Features

- 4 RJ-45 Ports 10/100Base-TX w/PoE
- Auto MDI/MDI-X
- Auto-negotiation
- 1 SFP Port (MC251-4P/1S)
- 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)
- Up to 4 IEEE 802.3af devices powered
- Complies with IEEE 802.3af Power over Ethernet End-Span PSE
- Supports up to 15.4 watts for each PoE port
- Auto detect powered device (PD)
- Circuit protection prevents power interference between ports
- Remote power feeding up to 328 ft. (100m)
- Robust Hardened Design
- Provides either DIN-rail or wall-mounting
- 24 ~ 48VDC or 24VAC Operation (MC251-4P/1S)
- Redundant power with reverse-polarity protection
- Alarm relay output for power-failure alert
- Voltage/surge-suppression
- Complies with IEC60068-2-xx standards for free-fall, shock and vibration
- Wide operating temperature range of -40°C ~ +75°C

# MC251-4P/1S

## 4-Port Ethernet to SFP Industrial Media Converter

### Specifications

#### RJ45 Ports

- 10/100Base-TX Connectors: RJ-45 (4)
- Port Configuration: Auto MDI/MDI-X
- Port Speed: Auto-negotiate
- Electro Static Discharge (ESD) Protection: 6KVDC

#### SFP Ports

- Data Rate: 100Base-FX/BX/LX
- # of SFP Ports: 1
- Optical Fiber Type: Varies by SFP
- Optical Distance: Varies by SFP

#### PoE (MC251-4P/1S only)

- PoE Standard: IEEE 802.3af Power over Ethernet / PSE
- PoE Power Supply Type: End-Span
- PoE Power Output: Per Port 48VDC, 350mA. Max. 15.4Watts
- Power Pin Assignment: 1/2(+), 3/6(-)

#### 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
- PoE (MC251-4P/1S only): PoE in use – Amber -

#### Electrical & Mechanical

- Supply Voltage: 24 ~ 48VDC or 24VAC
- Power Consumption (Full load): 77Watts 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/mm) (W x D x H): 2.20 x 3.46 x 5.31 in (56 x 87.6 x 135 mm)
- Weight (lbs./kg): 1.86 lbs./0.842kg

#### Environmental

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

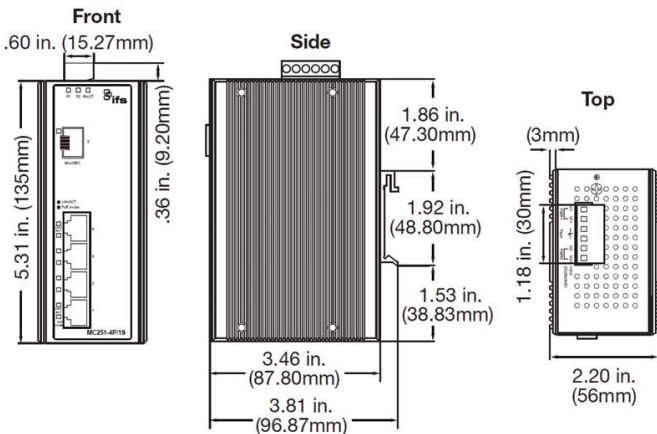
#### Standards Compliance

- IEEE Standards: IEEE 802.3 10Base-T; IEEE 802.3u 100Base-TX /100Base-FX; IEEE 802.3x Flow Control and Back pressure IEEE802.3-af PoE (15.4w) – MC251-4P/1S only
- IEC Standards: IEC60068-2-32 (Free fall) IEC60068-2-27 (Shock) IEC60068-2-6 (Vibration)
- EIA/TIA-568 Standards: 2-Pair UTP Cat. 3, 4, 5 (100meters, max.) EIA/TIA-568 100-ohm STP (100meters, max.)
- Regulation: FCC Part 15 Class A, CE

#### Accessories

- SFP: S20 Series
- SFP: S25 Series (wide-temp)
- 613P-EU: 100-240V AC Input 13.5V DC 1.3Amp Output Power Supply Brick model EU plug (for use with MC250- 4T/2S)
- 613P-UK: 100-240V AC Input 13.5V DC 1.3Amp Output Power Supply Brick model UK plug (for use with MC250- 4T/2S)
- 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

### Diagram



### Ordering Information

MC251-4P/1S

4-Port Ethernet to SFP Industrial Media Converter

