

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.



Details

- 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

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Technical Specifications

General

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

Connections

No. of ports	4
Port speed	Fast
Port type	10/100
Fiber port	1
Fiber port type	SFP
Fiber port speed	100Base FX/LX/BX
Supported SFP's	S20/S25 series
Fiber distance	SFP dependant
Fiber connector	LC
Wavelength	SFP dependant

Physical

Physical dimensions	56 x 87 x 135 mm
Net weight	842 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:	-40°C ~ 75°C
Storage Temperature:	-40°C ~ 85°C
Relative Humidity:	0% ~ 90% (non-condensing)

Electrical

Power supply type	24 to 48 VDC
Power consumption	77 W
PoE	Yes
PoE/PoE+	4 ports PoE (802.3af)

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

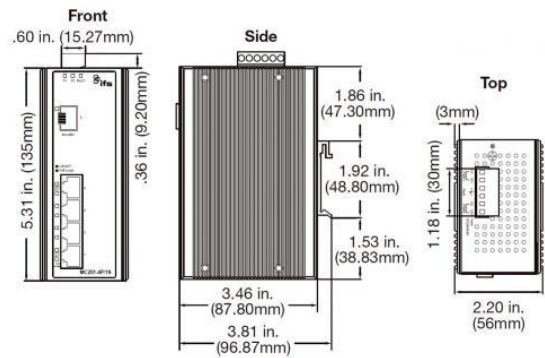
Supply Voltage:	24 ~ 48VDC or 24VAC
Power Consumption (Full load):	77Watts Max.
Electrical Fast Transient (EFT) Protection:	6KVDC
Power and Alarm Fault Connector:	6-pin removable screw terminal
Alarm Fault Relay:	Provides one relay output for power failure notification; 24VDC – 1A max.
Enclosure:	IP-30 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

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

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