

# MC250-1T/1S

## Fast Ethernet to SFP Industrial Media Converter



### OVERVIEW

The IFS Fast Ethernet to SFP Industrial Media Converter is designed for the most demanding IP network applications offering the flexibility of SFP technology for optimizing network performance with wide operating temperature range.

#### SFP Technology

The IFS MC250-1T/1S converts a 10/100Base-T Ethernet on copper to 100Base-X fiber via Small Form-factor Pluggable (SFP) technology. This media converter can be custom configured to your exact system design specifications by utilizing a variety of IFS SFP Mini-GBIC modules. IFS SFP Mini-GBIC modules are available in a variety of versions from multi-mode or single mode fiber, 1 or 2 fibers and wide-temperature versions.

#### Robust Hardened Design

With an IP-30 rated enclosure, the IFS Fast Ethernet to SFP Industrial Media Converter provides a high level of immunity against electromagnetic (EMI) and radio-frequency (RFI) interference typically found in industrial environments. This media converter complies with IEC60068-2-xx standards for free-fall, shock, and vibration and operates in -40°C to 75°C temperatures found in difficult environments such as factory floors or in curb side traffic control cabinets.

### STANDARD FEATURES

#### Ethernet

- 10/100Base-T
- Complies with IEEE 802.3, IEEE 802.3u, IEEE 802.3ab
- Auto-negotiation and MDI/MDI-X
- 10/100Base-T: 2-pair Cat. 5e/6 UTP cable, up to 100 meters

#### SFP (Mini-GBIC) Port

- IEEE 802.3u, 100Base-FX standard
- 1 SFP slot provides custom configuration
- Optical fiber and distance varies by SFP (ordered separately)

#### Installation & Diagnostics

- Plug-n-play installation
- LED indicators for easy local network diagnostics

#### Robust Hardened Design

- Slim IP30 metal enclosure
- DIN-rail or wall-mounting
- 12 ~ 48VDC, redundant power with reverse-polarity protection
- Alarm relay output for port breakdown and power-failure alert
- Complies with IEC60068-2-xx standards for free-fall, shock and vibration
- Voltage/surge-suppression
  - EFT 6000VDC protection for power lines
  - ESD 6000VDC protection for Ethernet
- Wide operating temperature range of -40°C ~ +75°C

#### Warranty

- 3-year warranty

## Specifications

Ethernet	Description
Data Rate	10/100Base-TX port
Throughput (packet per second)	148,800pps
Switch Architecture	Store-and-forward
Max Packet Size	1522 Bytes
Flow Control	Back Pressure for Half Duplex, Mode Pause for Full-Duplex Mode IEEE 802.3x
Connector	RJ-45 (Auto-MDI/MDI-X)
Electro Static Discharge (ESD) Protection	6KVDC
Cable Type and Distance	10Base-T: 2-pair UTP Cat. 3,4,5, up to 100 m (328 ft.) 100Base-TX: 2-pair UTP Cat. 5e, up to 100 m (328 ft.)

### Fiber

Data Rate	100Base-FX 802.3u
Connector	SFP (Mini-GBIC) port
Fiber Type and Distance	Varies by SFP module

### LED Indicators & Controls

Power/Status	Green/On – power
Power Fault Proper Operation –Off; Fault	Green
10/100Base-TX port	Green/On – active port (TX/RX)
SFP (Mini-GBIC) port link	Green/On – link established
Reset button	Reset to factory default settings

### Electrical & Mechanical

Power (Redundant with reverse polarity protect function)	12 ~ 48VDC, .65A (3W Max.)
Electrical Fast Transient (EFT) Protection	6KVDC
Alarm	Provides one relay output for power failure notification Alarm relay maximum current: 1A @ 24VDC
Power and Alarm Fault Connector	6-pin removable screw terminal
Enclosure	IP30 rated metal enclosure
Dimensions (H x W x D)	5.31 x 1.26 x 3.46 in. (135 x 32 x 88mm)
Weight	0.95 lbs. / 430 grams

### Environmental

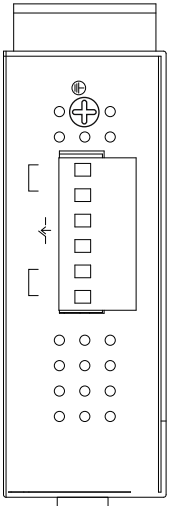
Operating Temperature	-40°C ~ +75°C
Storage Temperature	-40°C ~ +85°C
Relative Humidity	0% ~ 90% (non-condensing)
MTBF	> 100,000 hrs @ 25°C

### Standards Compliance

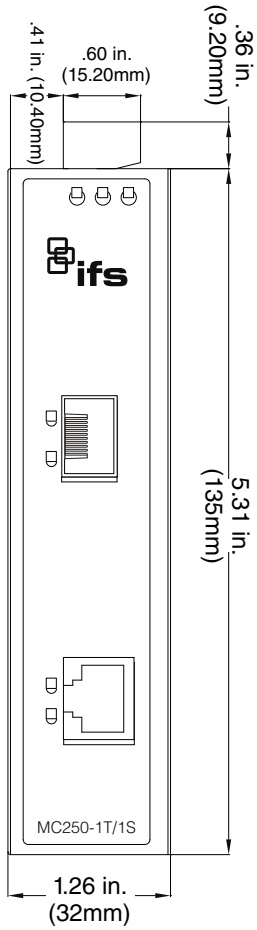
IEEE	IEEE 802.3 10Base-T IEEE 802.3u 100Base-TX /100Base-FX IEEE 802.3x
EMI	EN 55022 CLASS A EN61000-3-2:2006 EN61000-3-3: 1995+1A:2001+A2:2005
EMS	EN 55024:1998+A1:2001+A2:2003 IEC 61000-4-2:2001 IEC 61000-4-3:2008 IEC 61000-4-4:2004 IEC 61000-4-5:2005 IEC 61000-4-6:2008 IEC 61000-4-8:2001
Stability	IEC60068-2-32(Free fall) IEC60068-2-27(Shock) IEC60068-2-6(Vibration)

## Dimensional Diagrams

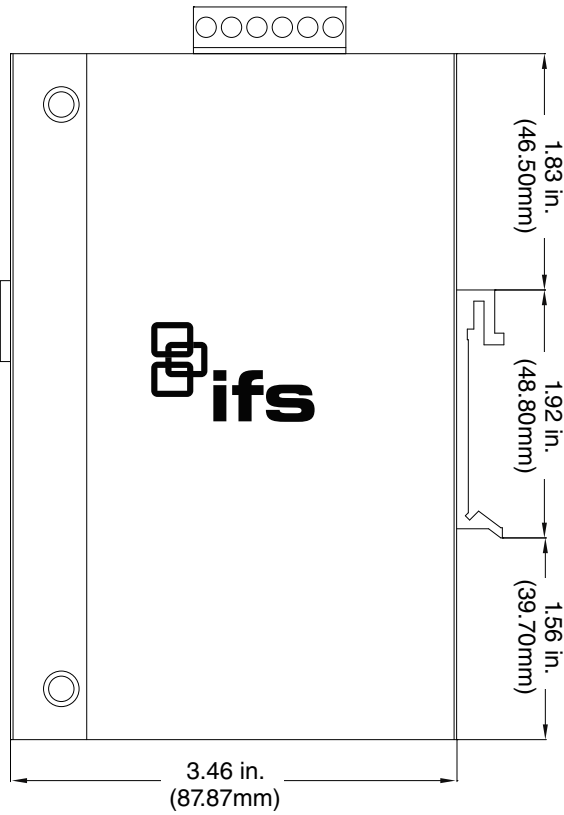
Side View



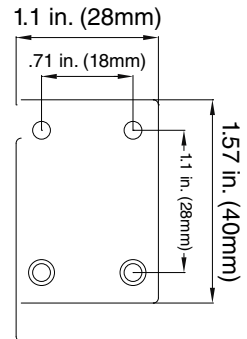
Front View



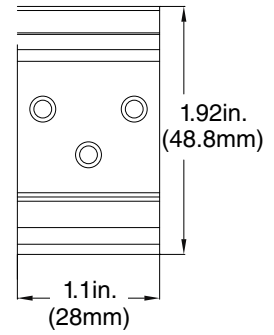
Top View



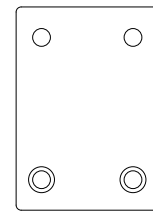
Mounting Kit



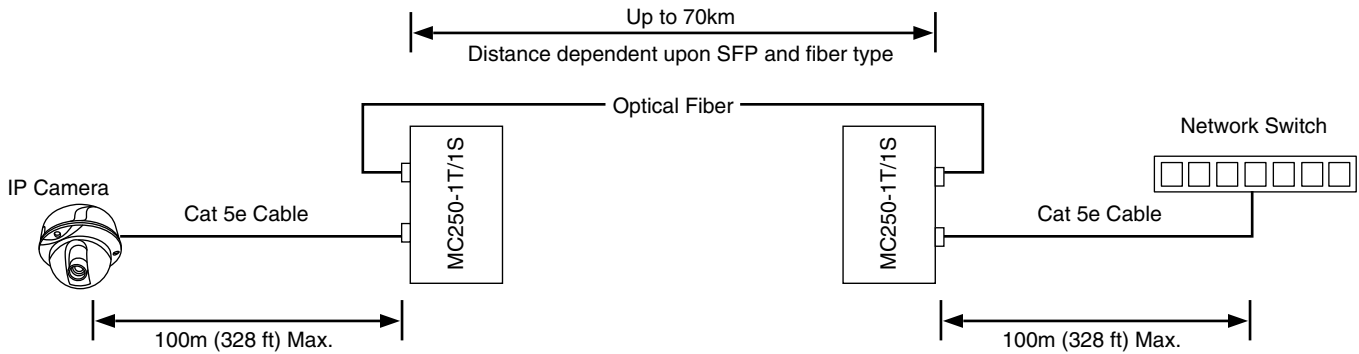
DIN-Rail Kit



Mounting Kit



## Typical Application



# MC250-1T/1S

Fast Ethernet to SFP Industrial  
Media Converter

North America  
T 855-286-8889

Asia  
T 852-2907-8108

Australia  
T 61-3-9239-1200

Europe  
T 32-2-725-11-20

Latin America  
T 561-998-6114

## Ordering Information

MC250-1T/1S	Fast Ethernet to SFP Industrial Media Converter
Included Accessories	User's Manual, DIN Rail Kit, Wall Mount Kit

Note: This unit requires a Small Form-factor Pluggable (SFP) for operation. IFS SFPs are available for multi-mode, single mode, 1 or 2 fibers for various transmission distances over optical fiber. Please refer to the IFS SFP data sheet to select the appropriate SFP for your particular application needs. This unit uses Fast Ethernet SFPs only.

Note: External power supply must be ordered separately.

## Accessories

SFP	S20 Series
SFP	S25 Series (wide-temp)
PS12VDC1.5A-U	12VDC@1.5A External Power Supply
HLG-240-48	48VDC High Temperature Industrial Power Supply
PS48VDC100W-DIN	48VDC@2A (100W) DIN-Rail Mount Hardened Power Supply (100~240VAC)



[interlogix.com](http://interlogix.com)

Specifications subject to change without notice.

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