

# MC350-1T-2S

# MC352-1P/1S

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## Gigabit Ethernet to SFP Industrial Media Converters



MC350-1T-2S  
Non-PoE

MC352-1P/1S  
PoE+ Support

MC355-1T/1S  
Non-PoE

### OVERVIEW

These IFS® Gigabit Ethernet to SFP Industrial Media Converters are designed for the most demanding IP network applications offering the flexibility of SFP technology and wide operating temperature range. The MC352-1P/1S model provides full IEEE802.3-at (30w) PoE and serves as a PSE device.

#### SFP Technology

These models convert 10/100/1000Base-T Ethernet on copper to 100Base-X or 1000Base-X fiber via Small Form-factor Pluggable (SFP) technology. These media converters 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.

#### Enhanced Remote Management Features (MC355-1T/1S only)

For efficient management, the IFS MC355-1T/1S model supports Simple Network Management Protocol (SNMP) and can be remotely managed via any standards-based management software.

Management functions include IP address configuration, DHCP Client function, port configuration, converter configuration, 802.1Q VLAN tagging, Q-in-Q VLAN, Ingress/Egress bandwidth control, QoS and Layer protocol filter, and broadcast storm control, to enhance bandwidth utilization.

In addition, the TS-1000/802.3ah OAM (operations, administration, and maintenance) protocol is supported which allows management and monitoring of a remote device via the MC355-1T/1S media converter.

### STANDARD FEATURES

#### Ethernet

- 10/100/1000 Base-T
- Complies with IEEE 802.3, IEEE 802.3u, IEEE 802.3ab
- Auto-negotiation and MDI/MDI-X
- 10/100/1000Base-T: 4-pair Cat. 5e/6 UTP cable, up to 100 meters

#### SFP (Mini-GBIC) Port

- Supports Fast or GigE SFPs
- MC355-1T/1S supports GigE SFPs only
- SFP slots provide for custom configuration
- Optical fiber and distance varies by SFP (ordered separately)

#### Power over Ethernet (MC352-1P/1S only)

- Complies with IEEE 802.3at
- Inserts 52VDC (30w) power on Category network cable
- Protects non-PoE devices if accidentally connected
- Backwards compatible with IEEE802.3af

#### Installation & Diagnostics

- Plug-n-play installation
- LED indicators for easy local network diagnostics
- Firmware upgradable via remote Web interface
- Reset button at the front panel for resetting to factory default

#### Robust Hardened Design

- Slim IP30 metal enclosure
- DIN-rail or wall-mounting
- 12 ~ 48VDC or 24VAC Operation (MC350-1T-2S)
- 12 ~ 48VDC Operation (MC355-1T/1S)
- 24 ~ 48VDC or 24VAC Operation (MC352-1P/1S)
- Redundant power with reverse-polarity protection
- Alarm relay output for port breakdown and power-failure alert
- Voltage/surge-suppression
  - EFT 6000VDC protection for power lines
  - ESD 6000VDC protection for Ethernet
- Complies with IEC60068-2-xx standards for free-fall, shock and vibration
- Wide operating temperature range of up to -40°C ~ +75°C

#### Warranty

- 3-year warranty

# Specifications

Ethernet	MC352-1P/1S	MC355-1T/1S	MC350-1T-2S
Data Rate	10/100/1000Base-TX port		
Throughput (packet per second)	1,488,000pps		
Switch Architecture	Store-and-forward		
Jumbo Packet Size	9K		
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 100m (328 ft.) 100Base-TX: 2-pair UTP Cat. 5e, up to 100m (328 ft.) 1000Base-T: 4-pair UTP Cat. 5e, 6 up to 100m (328 ft.)		

Fiber		
Data Rate	1000Base-SX/LX/BX only	100Base-FX and 1000Base-SX/LX/BX
Connector	SFP (Mini-GBIC) port	
Fiber Type and Distance	Varies by SFP module	

Power over Ethernet (PoE) Injector (MC352-1P/1S Only)		
PoE Standard	IEEE 802.3af / 802.3at High Power over Ethernet / PSE	
Power PIN Assignment	End-Span, (+) Pins 1 & 2; (-) Pins 3 & 6	
Power Output	(Max. 1 PoE Device) 52VDC 15.4 Watts or 52VDC 30 Watts	

LED Indicators & Controls		
Power/Status	Green/On – power	
Power Fault	Proper Operation – Off; Fault – Green	
10/100/1000Base-TX port	Green/On – active port (TX/RX); Amber/On – PoE in-use	Green/On – active port (TX/RX)
SFP (Mini-GBIC) port link	Green/On – link established	
Reset button		Reset to factory default settings

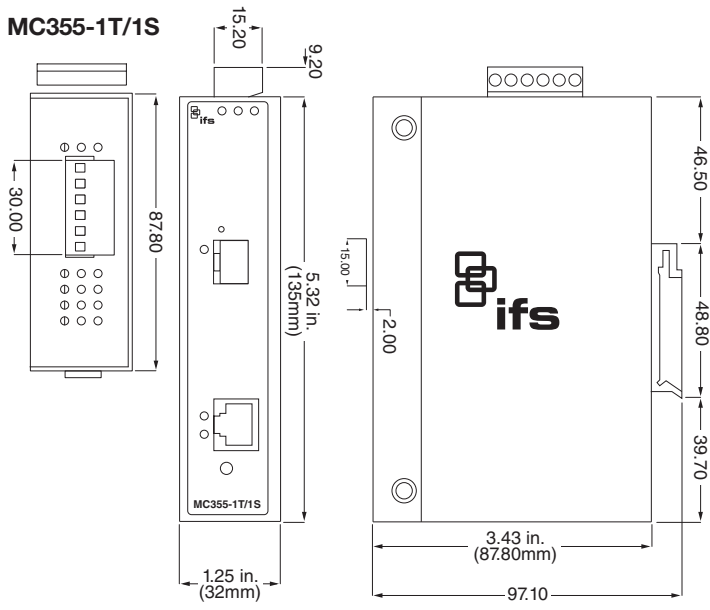
Electrical & Mechanical			
Power (Redundant with reverse polarity protect function)	24 ~ 48VDC or 24VAC, (33watts)	12 ~ 48VDC, (7.9 watts)	12 ~ 48VDC or 24VAC, (4.8 watts)
Electrical Fast Transient (EFT) Protection	6KVDC		
Alarm	Provides one relay output for power failure notification Alarm relay maximum current: 1A @ 24VDC		
Power and Alarm Fault Connector	6-pin removable screw terminal		
Enclosure	IP30 rated metal enclosure		
Dimensions (H x W x D)	1.25 x 5.32 x 3.43 in. (32 x 135 x 87mm)		
Weight	1.2 lbs. / 500 grams	0.93 lbs. / 423 grams	1.2 lbs. / 500 grams

Environmental			
Operating Temperature	-40°C~+75°C	-30°C~+75°C	-40°C~+75°C
Storage Temperature	-40°C~+85°C		
Relative Humidity	0%~90% (non-condensing)		
MTBF	> 50,000 hrs @ 25°C		

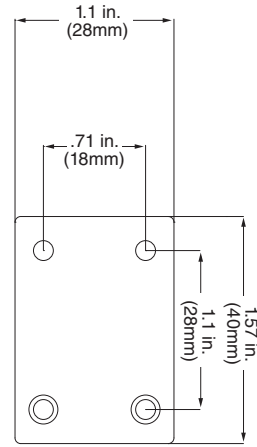
Standards Compliance			
IEEE	IEEE 802.3 10Base-T IEEE 802.3u 100Base-TX /100Base-FX IEEE 802.3ab 1000Base-TX IEEE 802.3z 1000Base-SX/LX/BX IEEE 802.3x Flow Control and Back Pressure IEEE 802.3af Power over Ethernet IEEE 802.3at High Power over Ethernet	IEEE 802.3 10Base-T IEEE 802.3u 100Base-TX /100Base-FX IEEE 802.3ab 1000Base-TX IEEE 802.3z 1000Base-SX/LX/BX IEEE 802.3x Flow Control and Back Pressure IEEE 802.3Q VLAN Tagging IEEE 802.3p Class of Service IEEE 802.3ah OAM	IEEE 802.3 10Base-T IEEE 802.3u 100Base-TX /100Base-FX IEEE 802.3ab 1000Base-TX IEEE 802.3z 1000Base-SX/LX/BX IEEE 802.3x Flow Control and Back Pressure
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

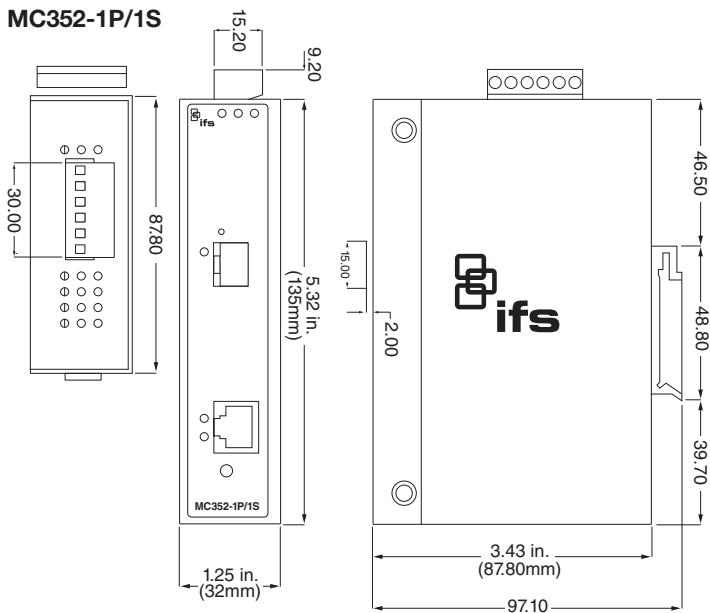
**MC355-1T/1S**



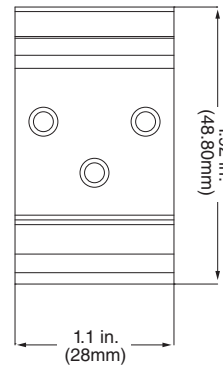
**Mounting Kit**



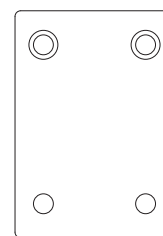
**MC352-1P/1S**



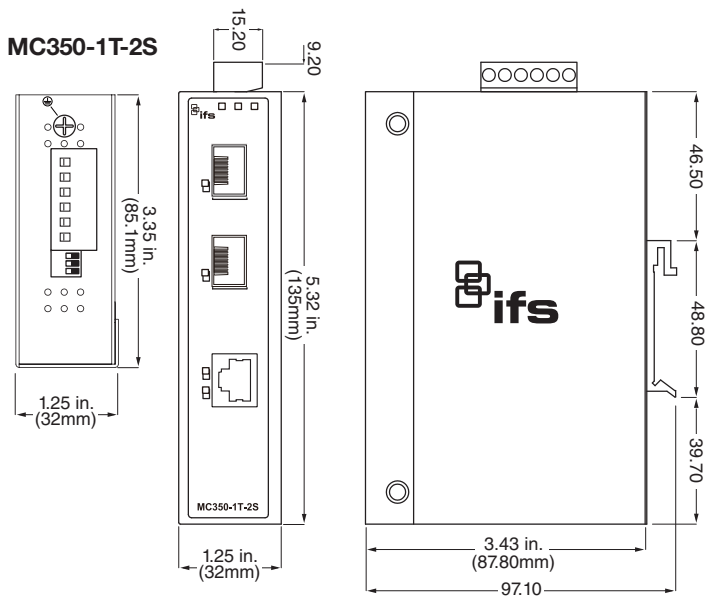
**DIN-Rail Kit**



**Mounting Kit**



**MC350-1T-2S**



# MC350-1T-2S MC352-1P/1S MC355-1T/1S

North America  
T 855-286-8889

Latin America  
T 561-998-6114

Gigabit Ethernet to SFP  
Industrial Media Converters

## Ordering Information

<b>MC350-1T-2S</b>	Gigabit Ethernet to 2-port SFP Industrial Media Converter
<b>MC352-1P/1S</b>	Gigabit Ethernet/PoE-at to SFP Industrial Media Converter
<b>MC355-1T/1S</b>	Gigabit Ethernet to SFP Industrial Managed Media Converter
<b>Included Accessories</b>	User's Manual, DIN Rail Kit, Wall Mount Kit

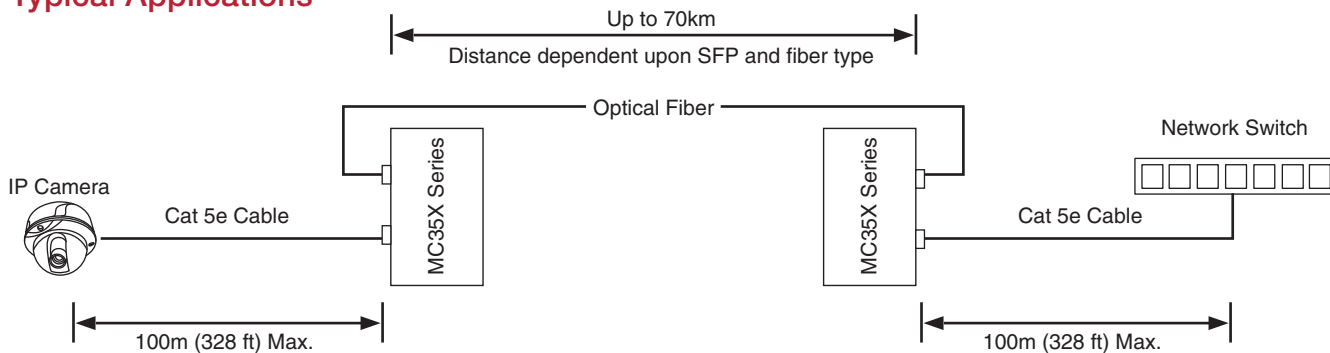
Note: These units require a Small Form-factor Pluggable (SFP) for operation. IFS SFPs are available for multi-mode, single mode, 1 or 2 fibers for various transmission distances over optical fiber. Please refer to the IFS SFP data sheet to select the appropriate SFP for your particular application needs. It is recommended that Gigabit SFPs be used for best performance. MC355-1T/1S only accepts Gigabit SFPs.

Note: External power supply must be ordered separately.

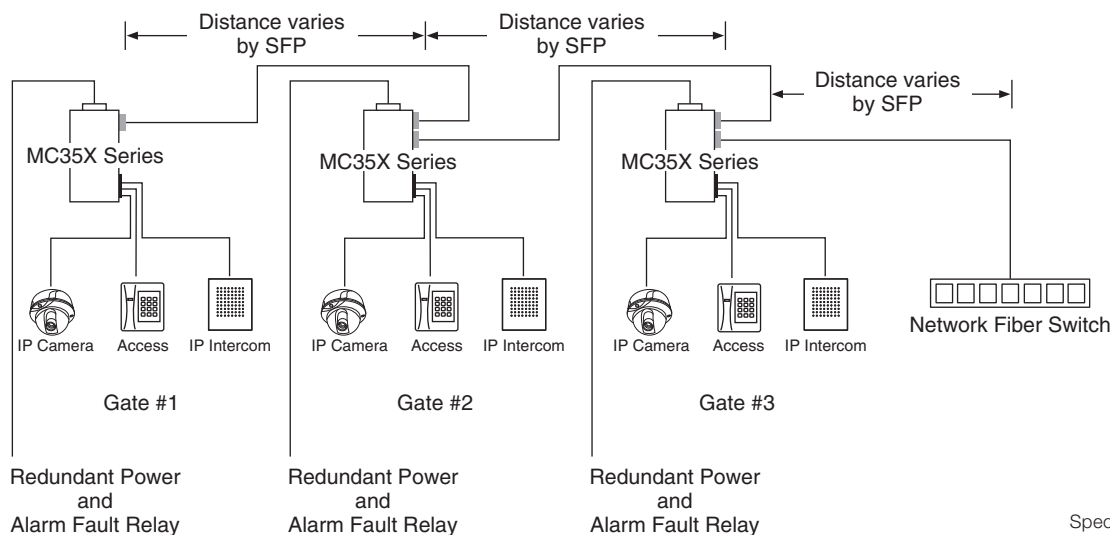
## Accessories

<b>SFP</b>	S30 Series
<b>SFP</b>	S35 Series (wide-temp)
<b>SFP</b>	S20 Series, Not compatible w/MC355-1T/1S
<b>SFP</b>	S25 Series (wide-temp), Not compatible w/MC355-1T/1S
<b>PS12VDC1.5A-U</b>	12VDC, 1.5A External Power Supply (for use w/MC350-1T-2S and MC355-1T/1S only)
<b>PS48VDC100W-DIN</b>	48VDC, 2A (100W) DIN-Rail Mount Hardened Power Supply (100-240VAC)

## Typical Applications



## Drop-and-Repeat Application



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Specifications subject to change without notice.

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310-3740 2013/12 (76189)