Industrial Media Converter

User's Manual
v1.00

PROPRIETARY DATA

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used or duplicated, for procurement or manufacturing purposes,
without prior written permission by **VERSITRON**.

VERSITRON LIFETIME WARRANTY

All VERSITRON products are covered by a **Lifetime Warranty** against defects in materials and workmanship. This coverage is applicable to the original purchaser and is not transferable.

We repair, or at our option, replace parts/products that, during normal usage and operation, are proven to be defective during the time you own the products, provided that said products and parts are still manufactured and/or available. Such repair/replacement is subsequent to receipt of your product at our facility and our diagnostic evaluation and review of the unit. Advance replacements are not provided as part of the warranty coverage.

This warranty does not cover damage to products caused by misuse, mishandling, power surges, accident, improper installation, neglect, alteration, improper maintenance, or other causes which are not normal and customary applications of the products and for which they were not intended. No other warranty is expressed or implied, and VERSITRON is not liable for direct, indirect, incidental or consequential damages or losses.

In the unlikely event a warranty issue should arise, simply contact us at 302-894-0699 or 1-800-537-2296 or via email at fiberlink@versitron.com to obtain a Return Material Authorization (RMA) number, along with instructions for returning your product.

Product Overview

This installation manual describes the installation procedures of the following VERSITRON Industrial Media Converter products:

Model Number	Description
MF7273	10/100Base-T to 100Base-FX, MM 1310nm, ST Connectors, 2 km
MF7274	10/100Base-T to 100Base-FX, MM 1310nm, SC Connectors, 2 km
MF7275-2	10/100Base-T to 100Base-FX, SM 1310nm, SC Connectors, 20 km
MF7275-2SFA	10/100Base-T to 100Base-FX, SM 1310nm, SC Connector, 20 km
MF7275-2SFB	10/100Base-T to 100Base-FX, SM 1550nm, SC Connector, 20 km
MF7260	10/100/1000Base-T to 1000Base-FX SFP Slot
MF7260P	PoE/PoE+ 10/100/1000Base-T to 1000Base-FX SFP Slot

For efficient and reliable connectivity from the network edge device to a backbone switch or server, the Fast Ethernet and Gigabit Media Converters are designed to extend existing LANs over fiber optic cable.

These MF7260P PoE/PoE+ converter provides optimized deployment and reliable power management to PoE edge devices such as IP surveillance cameras, access control panels, wireless access points or Voice over IP phones. Full power POE-af (15.4w) /POE-at (30w) is applied to the copper port.

This installation manual describes how to install and use the Industrial Media Converters.

"**Industrial Media Converter**" is used as an alternative name for the above products in this user's manual.

Packet Contents

Open the box of the Industrial Media Converter and carefully unpack it. The box should contain the following items:

The Industrial Media Converter	1
DIN Rail Bracket	1
6-Pin Terminal Block	1

If any of these are missing or damaged, please contact VERSITRON immediately; if possible, retain the carton including the original packing material, and use them again to repack the product in case there is a need to return it to us for repair.

Unpacking, Inspecting, and Storing

➤ Removing the transport packaging
Examine the delivered product thoroughly to ensure that the product has not been damaged during transportation. Remove the transport packing carefully.

➤ Identifying the product
Locate the model number of the product from the label the on surface of the product box and check against the ordering information to verify that the received product is correct.

➤ Inspecting the product
Check the product carefully to see if any damage occurred during the transportation. Notify VERSITRON immediately if there are any discrepancies or damage.

➤ Storing
If the product is stored before installation, it must be done with the original transport packaging in a dry and dust free environment.

Product Features

➤ **Physical Ports**

- 10/100Base-TX Fast Ethernet or 10/100/1000BASE-T RJ45 copper
- 1000BASE- SFP Slot

➤ **Technical Features**

- Non-blocking store-and-forward switching
- RJ45 Port Supports 10/100Mbps or 10/100/1000Mbps-Full/Half-duplex Auto-negotiation
- Prevents Packet Loss w/Back Pressure (Half-Duplex) and IEEE 802.3x PAUSE Frame Flow Control (Full-Duplex)
- Available for ST, SC or LC fiber connector
- Available for operation over single mode or multimode fiber over a variety of link budget
- Available for operation over 1 or 2 fibers
- Available for operation in Ring or point-to-point configuration
- Redundant dual power supply inputs 48/52 VDC

➤ **PoE Features (MF7260P)**

- Complies w/IEEE 802.3-af/ w/IEEE 802.3-at Power over Ethernet End-Span PSE
- Supports PoE power up to 15.4/30 watts for each PoE port
- Auto detects power device (PD)
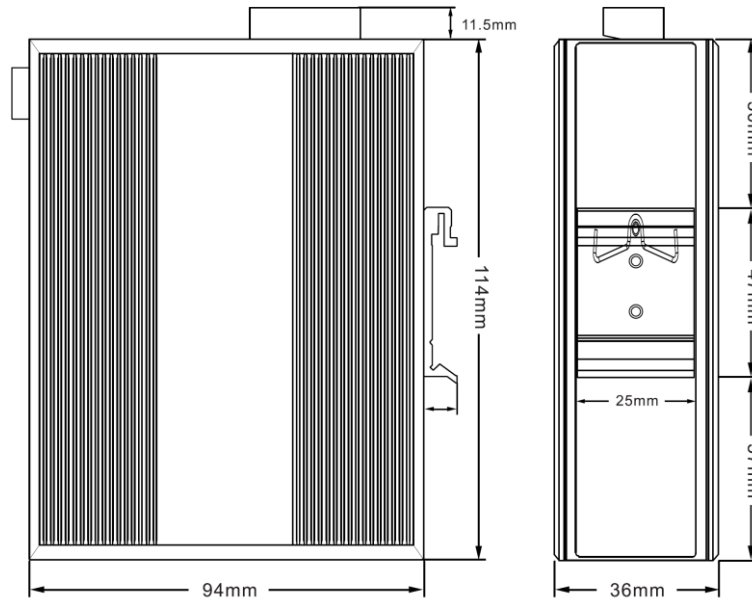- Remote power feeding up to 100m

➤ **Industrial Case and Installation**

- IP44-rated aluminum case protection
- Standard DIN rail design
- Redundant dual power supply inputs
- 4KV Ethernet Surge Protection
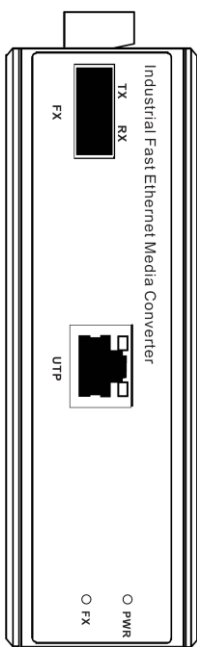- -40°C to 80°C operating temperature

Product Specifications

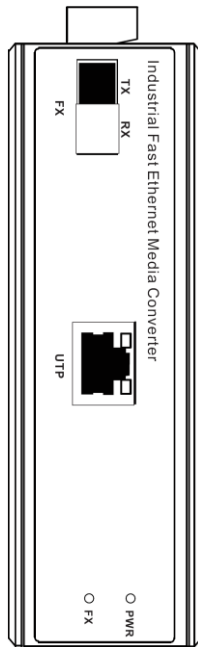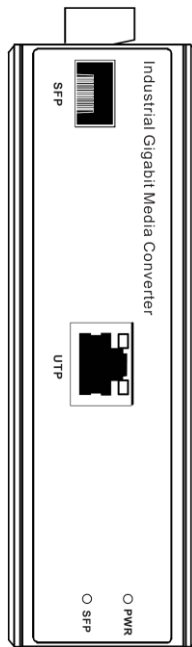| Hardware Specifications	
Copper Ports (RJ45)	1 x 10/100Base-TX or 10/100/1000Base-T
Fiber Ports	1 x 100Base-FX SC/ST or 1000Base-X SFP
Port Configuration	Auto MDI/MDI-X
Port Speed	Auto-negotiate
Switch Architecture	Store-and-forward
Switch Bandwidth	0.4Gbps/4Gbps (non-blocking)
MAC Address Table	2K/4K entries
Maximum Frame Size	1536 Bytes/9.6K Bytes (Jumbo Frames)
Flow Control	Back pressure for Half-Duplex; IEEE 802.3x Pause Frame for Full-Duplex
DC Power Input Voltage	DC 9~52V, Auto-sensing
Full Load Power Consumption	9 Watts
Dimensions	114 x 94 x 36mm (4.49 x 3.70 x 1.42 in.)
Case	IP44 Metal Case
Housing	DIN Rail Mounting
Operating Temperature	-40°C~+80°C (-40°F to 176°F)
Storage Temperature	-40°C~+80°C (-40°F to 176°F)
Relative Humidity	0%~95% (non-condensing)

Physical Dimensions

11.5mm
114mm
94mm
30mm
47mm
37mm
25mm
36mm

➤ **Front Panel**

Industrial Fast Ethernet Media Converter

TX   RX
FX
UTP
FX   PWR

Industrial Fast Ethernet Media Converter

TX   RX
FX
UTP
FX   PWR

Industrial Gigabit Media Converter

SFP
UTP
SFP   PWR

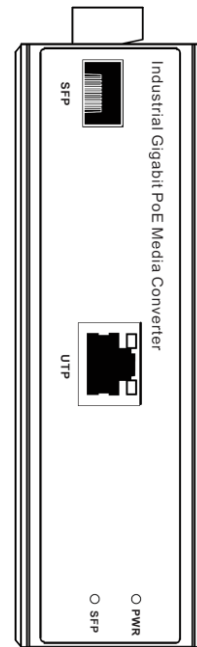Industrial Gigabit PoE Media Converter

SFP
UTP
SFP   PWR

MF7273 (ST)
MF7274 (SC)
MF7275-2 (SC)

MF7275-2SFA (SC)
MF7275-2SFB (SC)

MF7260 (SFP)

MF7260P (SFP)

Mounting & Installation

This section describes the hardware features and installation procedures of Industrial Media Converter. For easier management and operation of the product, familiarize yourself with its LED indicators and ports. Front panel illustration in this chapter display LED indicators. Please read this chapter carefully before connecting any network device to the Industrial Media Converter.

➤ **LED Indicators**

LED	Color	State	Indication
PWR	Green	Steady	Power On
FX/SFP	Green	Steady	A valid fiber connection established
		Flashing	Indicates that the media converter is actively sending or receiving data over SFP ports
10/100/1000Base-TX Port			
UTP(RJ45)	Amber	Steady	Connection at 1000Mbps Speed
	Amber	Off	Connection at 100Mbps Speed
	Green	Flashing	Indicates that the media converter is actively sending or receiving data over RJ45 ports.

➤ **Power Input Assignment**

Power Input Assignment			
PWR1	Pin 1	+	9-52VDC
	Pin 2	-	Power Ground
PWR2	Pin 5	+	9-52VDC
	Pin 6	-	Power Ground
⏚	Earth Ground		

Note: The right column "6-Pin Terminal Block" spans the PWR1 and PWR2 rows.
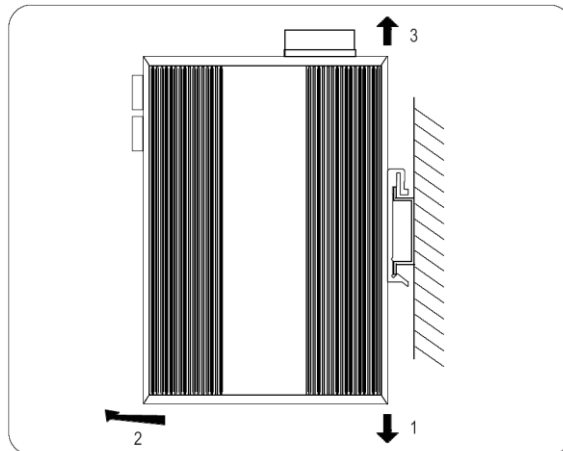
➤ Mounting Installation

- Insert the upper lip of the DIN rail into the DIN-rail mounting kit. Push the front of the Media Converter toward the mounting surface until it audibly snaps into place.
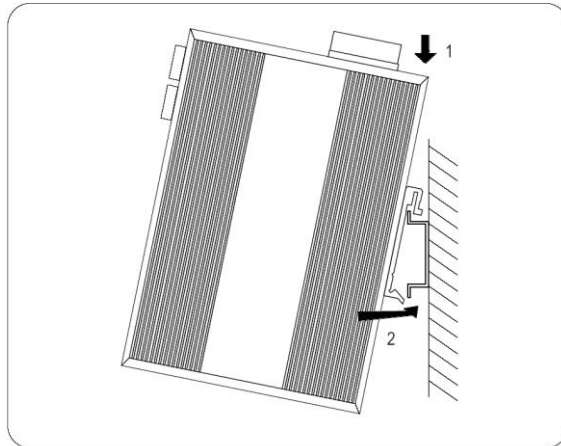
Insert switch into the DIN rail

- Make sure that the Media Converter is attached securely to DIN rail.

The switch is attached to the DIN rail

- Dismantling: Lightly press down and pull out the lower edge and then remove the Media Converter from the DIN rail.

➤ Installation Steps

Step 1:   Unpack the Industrial Media Converter

Step 2:   Check the DIN-Rail that is pre-installed on the Industrial Media Converter.
(Please refer to DIN-Rail Mounting section for DIN-Rail installation).

Step 3:   Connect the copper Ethernet port of the Industrial Media Converter to a PC or other
Ethernet device with a network cable (straight through Category 5 or above cable).

Step 4:   For single fiber or dual fiber SC/ST models, connect the fiber cable to the SC/ST
connector of the fiber ports of the media converter.
For SFP models, insert the appropriate SFP module into the SFP port. Connect the fiber
cable to the LC connector of the SFP installed into the media converter.

Step 5:   Power on the Industrial Media Converter (Please refer to the Power Input Assignment
Section for power input wiring). All the LEDs on the media converter will flash on and
then off which means the unit has been reset successfully. Then please refer to the LED
Indicators section for meaning of LED lights.

Step 6:   When all connections are set and all LED lights show normal, the installation is
complete.

Notice:

- Do not place any heavy objects on the top of media converters and ensure that the
media converter always has good ventilation. Do not block the ventilation holes on each
side of the media converter.
- Please power off before plugging in the power cord or removing the power adapters.