User Manual

Industrial Media Converter, with 1 x 100BaseF(X) SC SM 30KM + 1 x 10/100M, 18-36VAC or 12-56 VDC input

FCC MARKING

This Equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received; including interference that may cause undesired operation.

CE MARKING

This equipment complies with the requirements relating to electromagnetic compatibility, EN 55032/35 class A for ITE, the essential protection requirement of Council Directive 2014/30/EC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

Company has an on-going policy of upgrading its products and it may be possible that information in this document is not up-to-date. Please check with your local distributors for the latest information. No part of this document can be copied or reproduced in any form without written consent from the company.

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Key Features

- ➢ True Mini, hardened design enclosure 59x36x50mm (LxWxD)
- ➢ Supports 18V-36VAC, 12V-60VDC or DC Jack socket
- ➢ Supports Link Fault Pass through (LFP) function
- ➢ Supports Switch Mode and Converter Mode.
- ➢ Surge protection diodes on power input.
- ➢ ESD protection diodes on RJ-45 port
- ➢ Provides Far End Fault function on FX port.
- ➢ Provides increased Noise Immunity
- ➢ Extended environmental specification -40°C to 75°C

Introduction

This true mini, hardened Industrial Media Converter is designed for critical but space-limited outdoor CAM enclosure. It can be powered by wide range VAC, VDC or external DC power adapter. This unit can be either din-rail or wall mounted, both options are both included. It is an ideal unit for IP surveillance, traffic monitoring and security applications in critical environments. It can tolerate -40°C to 75°C in harsh environments to connect a reliable network.

Installation package

This unit can be din-rail mounted or wall-mounted. Din-rail brackets and wall-mount brackets are included.

Wall Mount Bracket x 2

Din Rail Bracket x 1

Philips Head Screw x 4
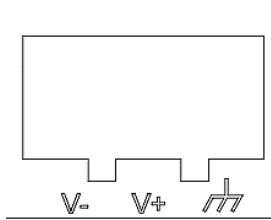
3-pin Terminal Block x 1
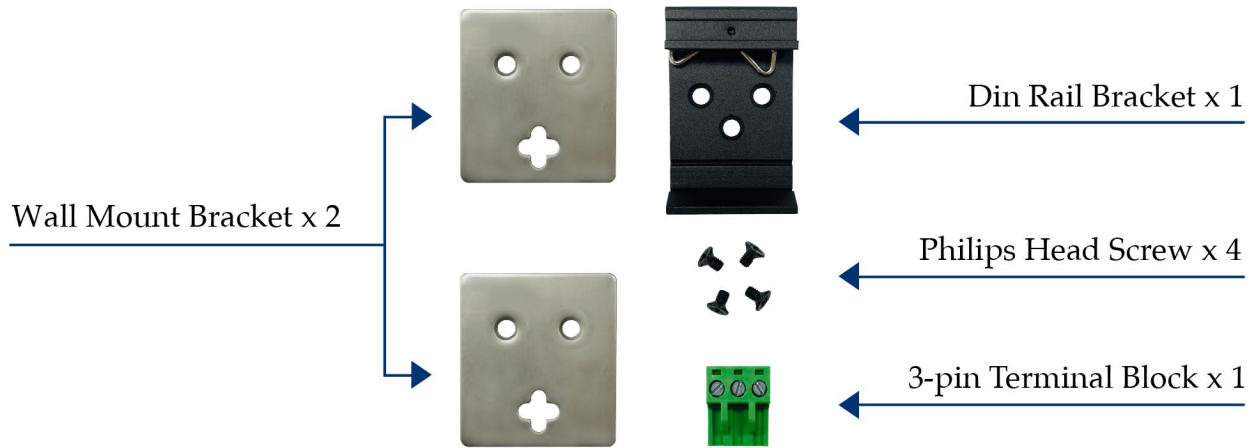
Power connection

This unit provides a 3 pin terminal block. It can be operated using either VAC or VDC power sources. The VDC power range is from 12VDC to 60VDC, and the VAC power range is from 18VAC to 36VAC. Always make sure your input voltage is within this supported voltage range.

To connect power: Follow the printed polarity for V+, V- and Ground. Connect positive wire to V+, connect negative wire to V- and also connect neutral wire to ground.

Power connecting procedure:

V-   V+

STEP 1 – Pull out 3 pin terminal block.
STEP 2 – Connect wire to V+, V- and Ground.
STEP 3 – Connect SC/SFP/WDM fiber wire to fiber port.
STEP 4 – Plug back 3 pin terminal block to its place.

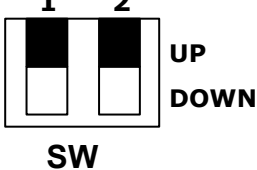<u>WARNING</u> -- **Always SHUT OFF power source to connect power wire.**
<u>WARNING</u> – **DO NOT force SFP fiber into SFP housing without removing terminal block.**
<u>WARNING</u> -- **Any exceeded input voltage will not make this unit function and may damage this unit.**
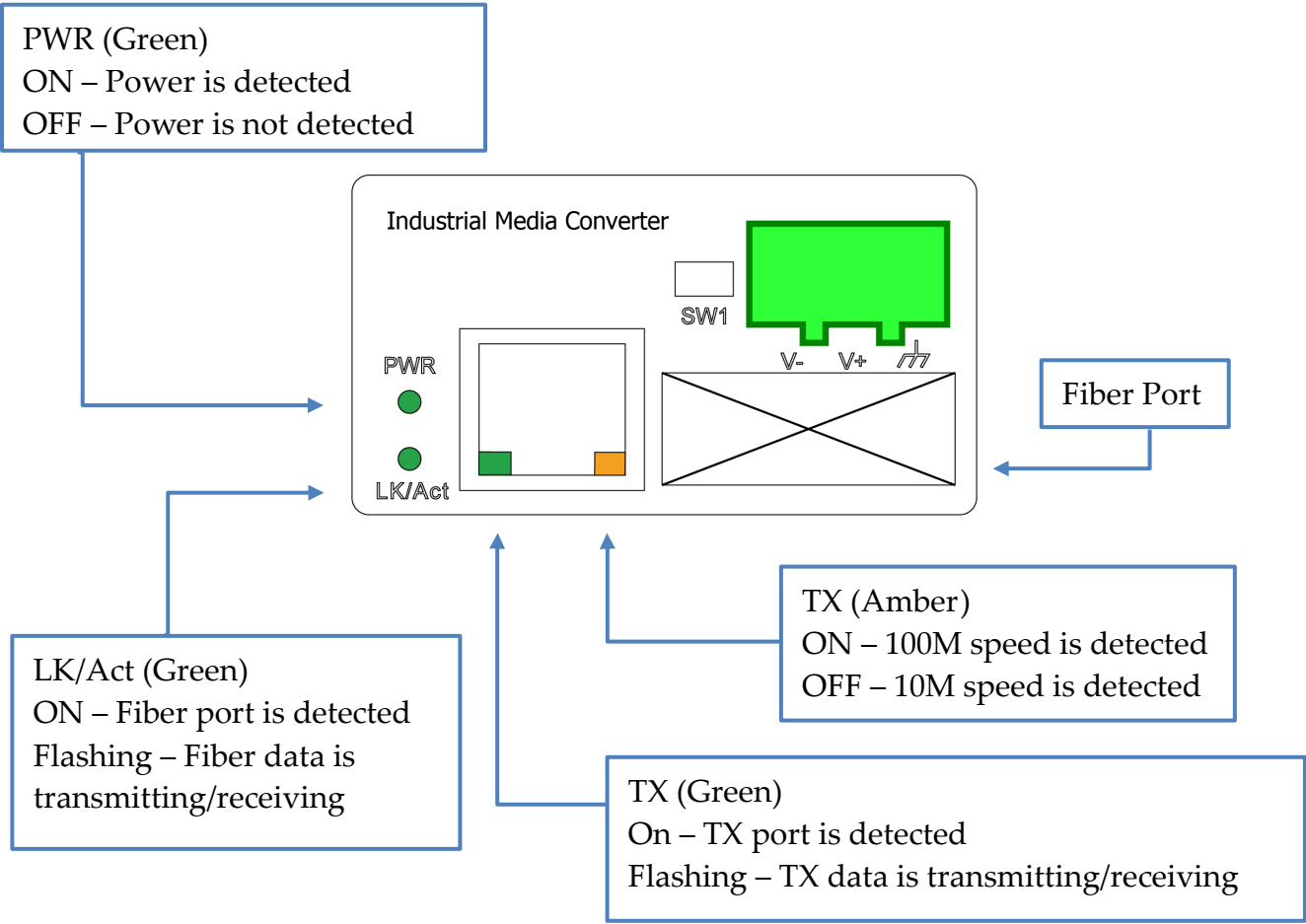
Dip switch function

This unit is equipped with dip switches, located on the front panel marked as SW1. Adjusting the dip switches will change the default function of this unit. This unit has set to manufacturer default as: Switch Mode ON and LFP function OFF.

The table shown as you may change the dip switch setting to your desired environment.

1 2 UP DOWN SW	DIP 1	UP	LFP enabled
		DOWN	LFP disabled (Default)
	DIP 2	UP	Converter Mode
		DOWN	Switch Mode (Default)

LED indicator

PWR (Green)
ON – Power is detected
OFF – Power is not detected

Industrial Media Converter

SW1

PWR

V-   V+

Fiber Port

LK/Act

LK/Act (Green)
ON – Fiber port is detected
Flashing – Fiber data is transmitting/receiving

TX (Amber)
ON – 100M speed is detected
OFF – 10M speed is detected

TX (Green)
On – TX port is detected
Flashing – TX data is transmitting/receiving

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Specification

IEEE Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3u 100Base-FX Fast Ethernet IEEE802.3x Flow Control and Back Pressure
Data Processing	Store and Forward
Flow Control	IEEE 802.3x Flow Control and Back Pressure
Jumbo Frame	9KB
Architecture	Full wire speed conversion, Transparent conversion to 802.1Q VLAN tagged packets.
Network Connector	1 x RJ-45 10/100BaseT(X) Auto negotiation, Auto MDI/MDI-X function, Full/Half duplex 1 x 100M SC Single-Mode 30km
LED Indicators	PWR(Green): ON－Power is detected LK/Act (Green): ON－Fiber is detected Flashing－Data is transmitting/receiving RJ-45 port Green: ON－TX link is detected 　　　Flashing－TX data is transmitting/receiving Amber: ON－100M speed is detected 　　　OFF－10M speed is detected
DIP Switch	DIP1: UP－LFP enable 　　　DOWN－LFP disable (Default) LFP (Link Fault Pass Through) DIP2: UP－Converter Mode 　　　DOWN－ Switch Mode (Default)
Power Protection	Surge protection diodes on power input
Connector Protection	ESD protection diodes on TX port
Reserve Polarity Protection	Present
Overload Current Protection	Present
Power Input	18V-36VAC, 12V-60VDC, DC Jack terminal cable supported (DC Barrel Connector)

Conformance to UL Standards	Use Isolated power supply to conform with UL 508 standard
Power Consumption	Full Load: 1.92Watts at 48VDC
Removable Terminal Block	3 pin contact terminal block for power input Wire range: 0.34mm^2 to 2.5mm^2 Solid wire (AWG):12-24/14-22 Stranded wire (AWG): 12-24/14-22 Torque:5lb-In/0.5Nm/0.56Nm Wire Strip length: 7-8mm
Operating Temperature	-40°C~75°C
Operating Humidity	5% to 95% (Non-condensing)
Storage Temperature	-40°C~85°C
Housing Design	IP40 Design, high graded Aluminum
Case Dimension (L X W X D)	59 x 36 x 50 mm (L x W x D)
Installation	DIN-Rail mounted, Panel Mounted

Certifications

Safety	LVD (EN62368-1)
EMC/EMS	CE, FCC, EN55032/35, VCCI
EMI	FCC Part 15 Subpart B Class A
Vibration	EN 60068-2-6
Shock	EN 60068-2-27
Free Fall	EN 60068-2-32

Housing Dimension (mm)
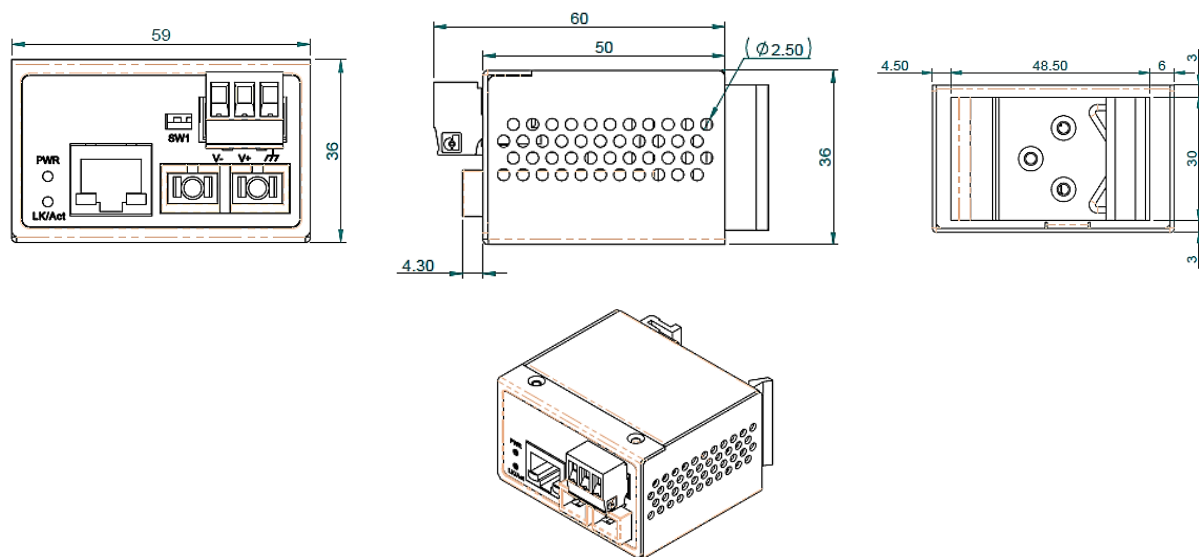
NOTE:

Housing dimension is for the purpose of showing product Length, Width, Height, din-rail, and terminal block's position and dimension. Please reference the LED Indicator Page for correct port order.