# User Manual: PC-MC101-GE
Industrial Media Converter

Version 10.2019

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 VDC. With its multi-purpose design, it can also be DIN-Rail or wall mounted. It is an ideal unit for IP surveillance, traffic monitoring and security applications in critical environments. It tolerates -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-mounted brackets are included.
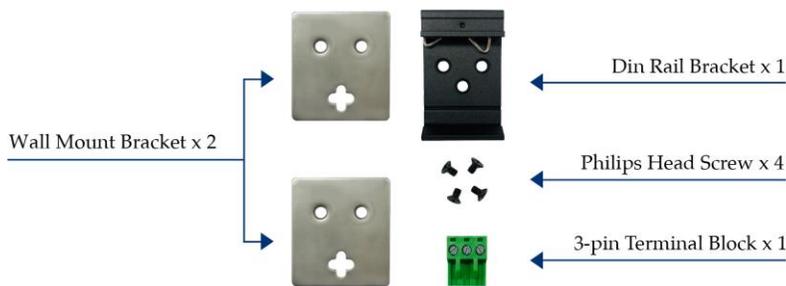
Power connection

This unit provides a 3 pin terminal block. It can be operated using either VDC power sources. The VDC power range is from 12VDC to 56VDC. Always make sure your input voltage is within this supported voltage range.

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

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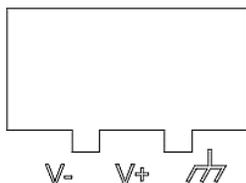
STEP 1 – Pull out 3 pin terminal block.
STEP 2 – Connect wire to V+, V- and Ground.
STEP 3 – Connect SFP fiber wire to fiber port.
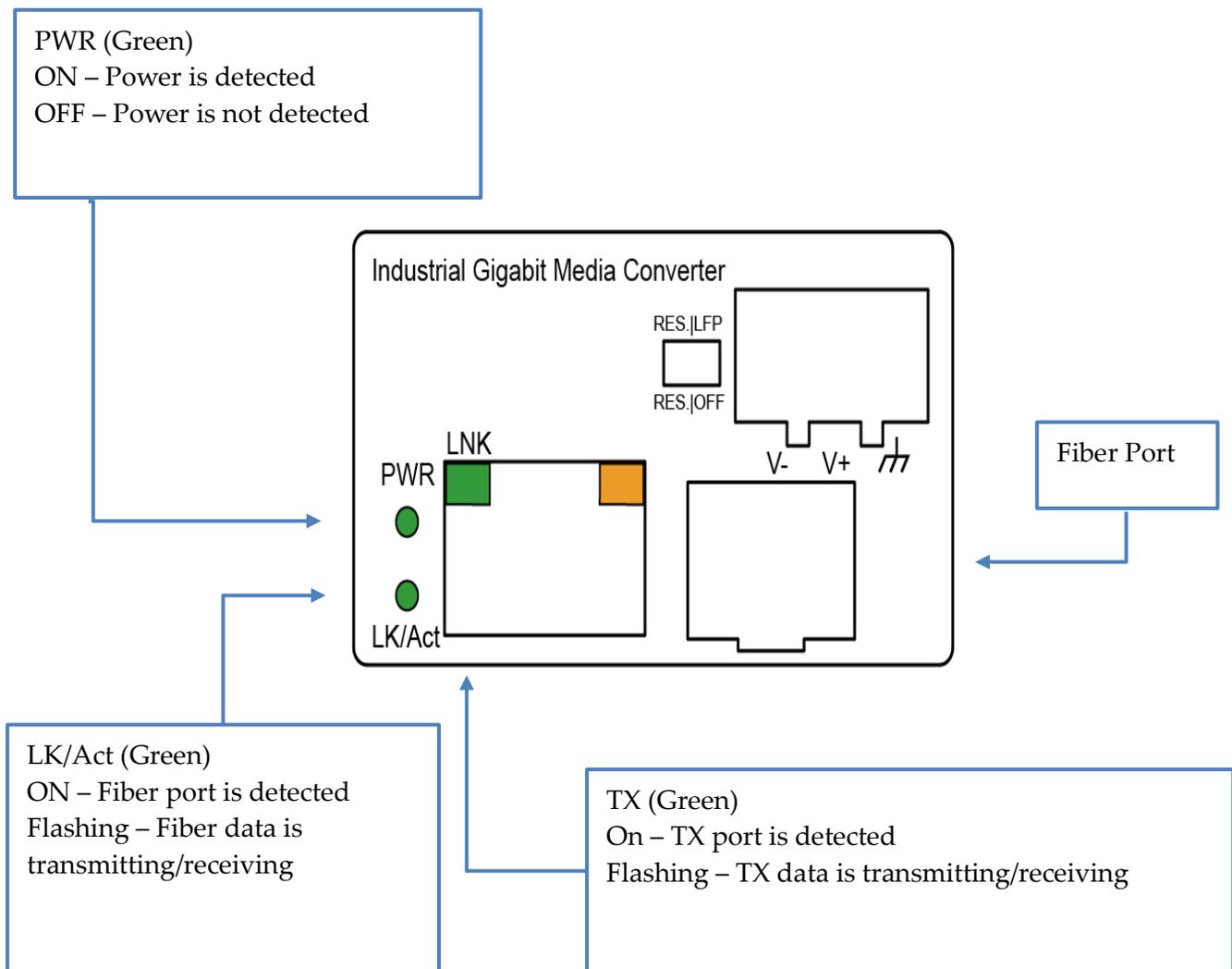STEP 4 – Plug back 3 pin terminal block to its place.

Dip Switch Function

This unit is equipped with dip switches, located on the front panel. Adjusting the dip switches will change the default function of this unit. This unit has set to manufacturer default as: LFP function OFF. LFP only works when speed is 1000M.

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

RES.|LFP ... **RES.|OFF**	DIP 1	UP	Reserved
		DOWN	Reserved
	DIP 2	UP	LFP enabled
		DOWN	LFP disabled (default)

LED indicator

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

Industrial Gigabit Media Converter

RES.\|LFP
RES.\|OFF

LNK
PWR
LK/Act
V- V+

Fiber Port

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

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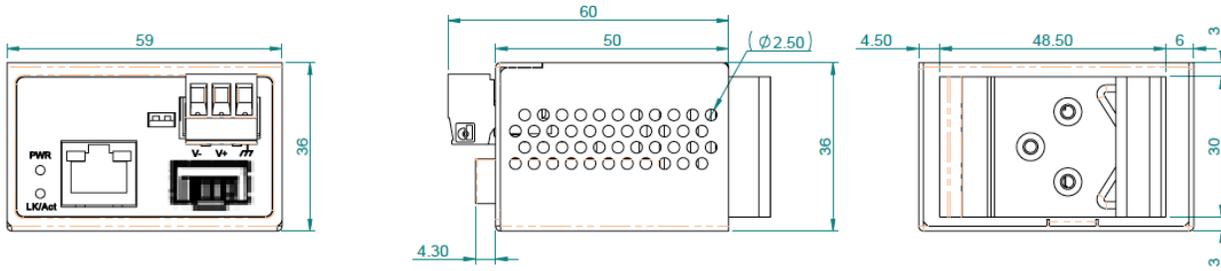
Specifications

IEEE Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 1000Base-T Gigabit Ethernet IEEE 802.3z 1000Base-X Gigabit Ethernet IEEE 802.3x Flow Control and Back Pressure
Switch Architecture	Back-plane (Switching Fabric): 4Gbps
Data Processing	Ports speed are the same: Converter mode Ports speed are not the same: Switch mode (store and forward)
Flow Control	IEEE 802.3x Flow Control and Back Pressure
Jumbo Frame	16KB
MAC Address Table Size	1K
Packet Buffer Size	512Kbits
Network Connector	1 x RJ-45 10/100/1000 Base-T(X) Auto MDI/MDI-X function, Full/Half duplex 1 x 100/1000 BaseX SFP
Network Cable	UTP/STP above Cat.5e Cable
	EIA/TIA-568 10-ohm (100m)
	Fiber Cable (Multi-mode): 50/125um,62.5/125um Fiber Cable (Single-mode): 9/125um
LED Indicators	PWR (Green): ON－Power is detected OFF－Power is not detected SFP Lnk/Act (Green): ON－FX port is detected Flashing－FX data is transmitting/receiving
	RJ-45 port: Lnk/Act (Green): ON－TX port is detected Flashing－TX data is transmitting
DIP Switch Function	DIP 1: Reserved DIP 2: Link Fault Pass Through (LFP)
Reserve polarity protection	Present
Overload current protection	Present
Power Consumption	1.92W full load without PoE at 48VDC

Power Input	12V-56VDC
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 to +75°C
Operating Humidity	5% to 95% (Non-condensing)
Storage Temperature	-40°C to 85°C
MTBF (mean time between failure)	>500,000 hrs (Telcordia (Bellcore), GB) at 50°C
Housing	Rugged Metal, IP30 Protection
Case Dimension (L X W X D)	59x36x49mm
Installation mounting	DIN Rail and Wall Mount options included

Certifications

Safety	LVD(EN60950-1)
EMC EMS	CE, FCC, EN 55032/24 IEC 61000-4-2 ESD: Contact: 6KV; Air: 8KV IEC 61000-4-4 EFT: Power: 2KV; Signal: 2KV IEC 61000-4-5 Surge: Power: 2KV; Signal: 2KV
EMI	CISPR 32, FCC Part 15B Class A
EN 60068-2-6	Vibration
EN 60068-2-27	Shock
EN 60068-2-32	Free Fall

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.