



User Manual: PC-BTPMC101-GE Industrial Media Converter

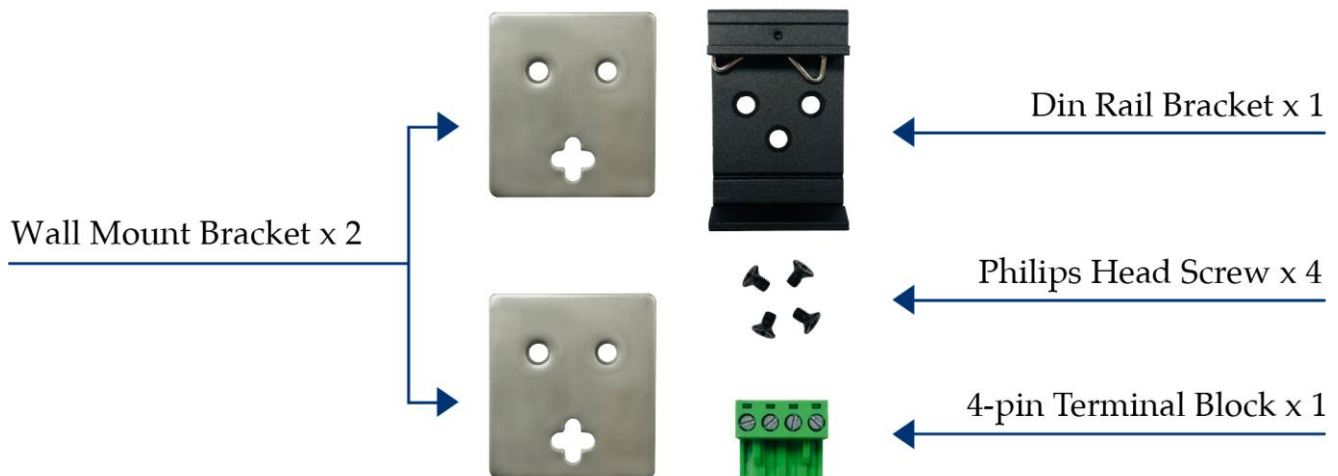
Version 5.2020

Introduction

This hardened Industrial Gigabit Media Converter is designed for Security, Transportation and Telco applications to extend your network distances. It can be powered by wide range of 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 environment. It can tolerate -40°C to 75°C in harsh environment to perform a reliable network.

Installation package

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



Power connection

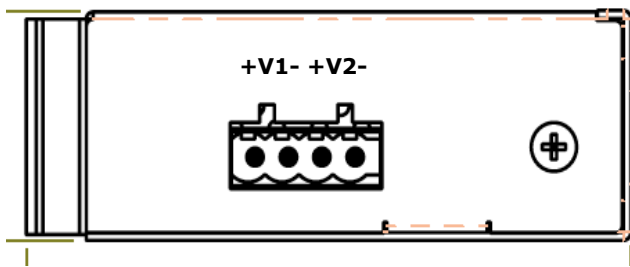
This unit provides a 4 pin terminal block. It can be operated using 48-56VDC power source. Always make sure your input voltage is within this supported voltage range.

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

+V- is for power input connection, this unit has only one power input.

RLY is for relay connection.

Power connecting procedure:



STEP 1 – Take out 4 pin terminal block located in the included mounting kit package.

STEP 2 – Connect power wire to +V- with correct polarity and connect RLY for relay. Connect the grounding wire to the ground screw.

STEP 3 – Plug into terminal block socket shown above. Polarity needs to match V+ and V-

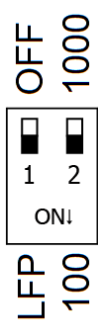
WARNING -- Always SHUT OFF power source to connect power wire.

WARNING -- Any exceeded input voltage will not make this unit function and may damage this unit.

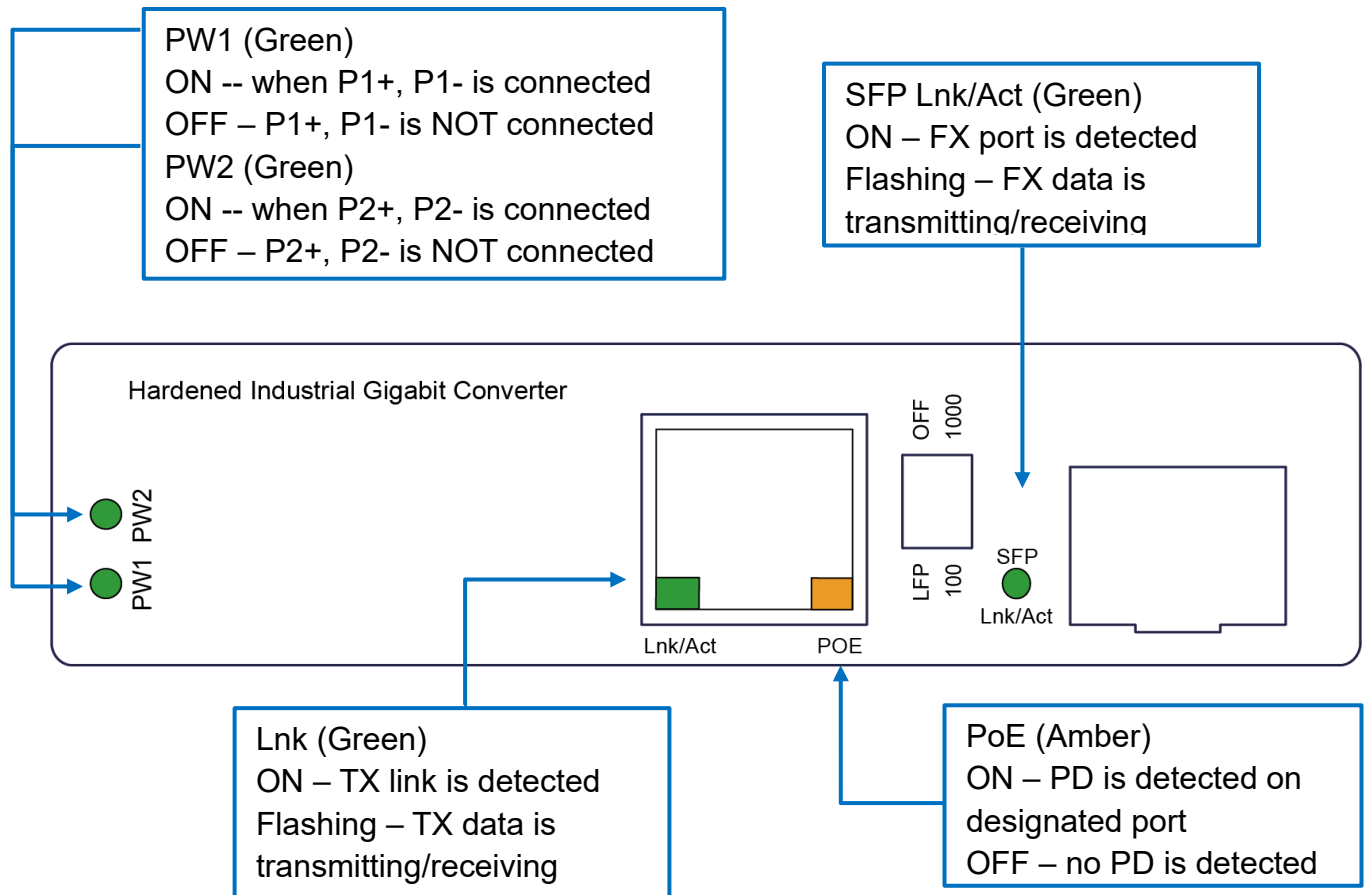
Dip Switch Function

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

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

	Dip 1	OFF	LFP disabled (Default)
		ON	LFP enabled
	Dip 2	OFF	SFP Speed 1000M (Default)
		ON	SFP Speed 100M

LED indicator

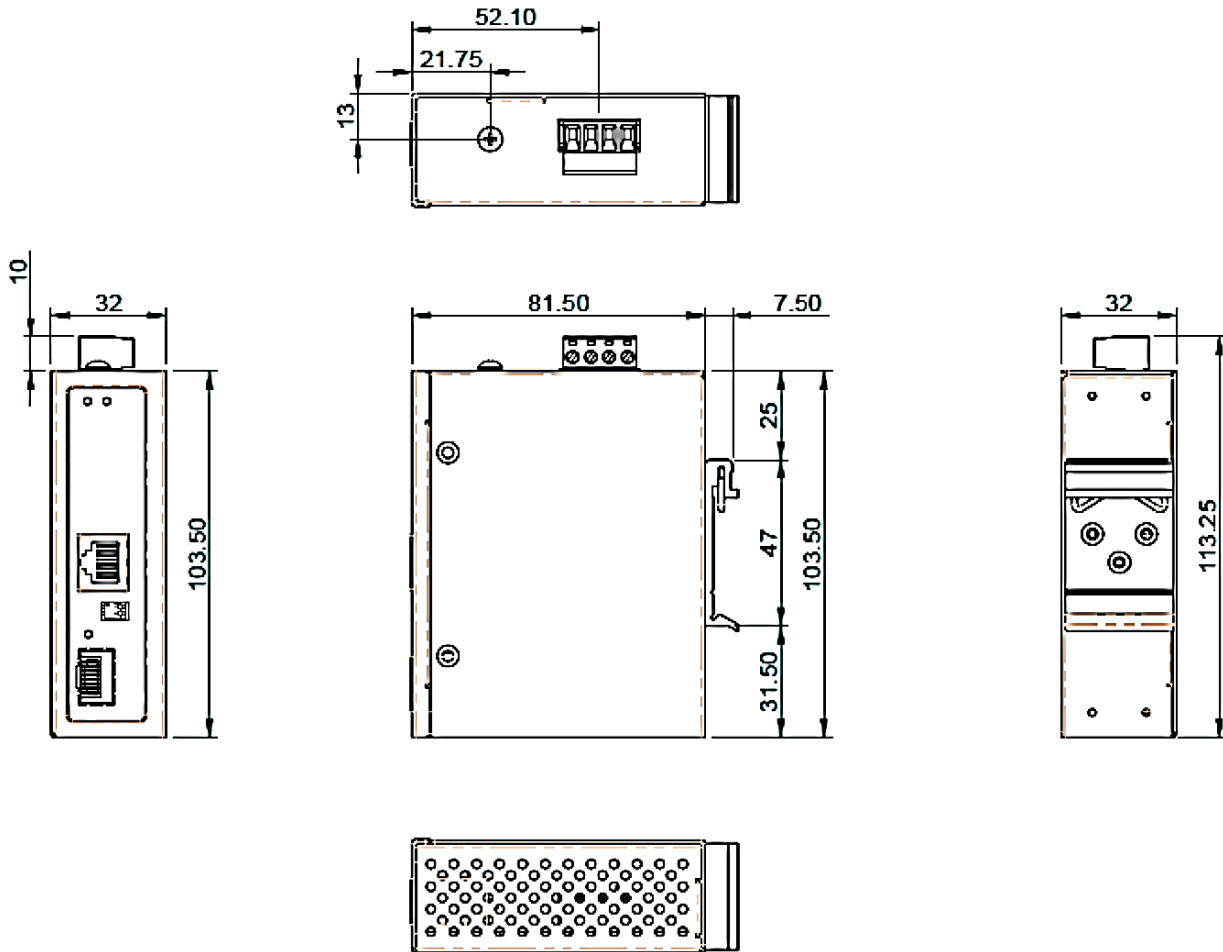


Specifications

IEEE Standard	<p>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, IEEE 802.3af for POE IEEE 802.3at for POE+ IEEE 802.3bt Compliant with 60W uPoE standard Compliant with 95W Power over HDBaseT (PoH) standard</p>
Switch Architecture	Back-plane (Switching Fabric): 4Gbps
Data Processing	Store and Forward
Flow Control:	IEEE 802.3x Flow Control and Back Pressure
Jumbo Frame	16KB
Network Connector	<p>1xRJ-45 10/100/1000BaseT(X) PSE with POE Output power up to 30Watts 1 x 100/1000M SFP</p>
Network Cable	<p>UTP/STP above Cat.5e Cable EIA/TIA-568 10-ohm (100m)</p>
Protocol	CSMA/CD
LED	<p>PW1 (Green): ON – Power 1 is detected PW2 (Green): ON – Power 2 is detected</p> <hr/> <p>SFP Lnk/Act (Green): ON – FX port is detected Flashing – FX data is transmitting/receiving</p> <hr/> <p>RJ-45 port: <u>Lnk/Act (Green):</u> ON – TX port is detected Flashing – TX data is transmitting</p> <p><u>PoE (Amber):</u> ON – PD is detected on designated port. OFF – no PD is detected.</p>
POE Pin Assignment	<p>Pin 1 (V-), 2 (V-), 3 (V+), 6 (V+) Pin 4 (V+), 5 (V+), 7 (V-), 8 (V-)</p>

DIP Switch	DIP1: OFF – LFP disabled (Default) ON – LFP enabled
	DIP 2: OFF – SFP speed 1000M (Default) ON – SFP speed 100M
	Link Fault Pass Through (LFP) is when copper side signal lost or disconnect, fiber side link signal will actively off, when fiber side signal lost or disconnect, copper side link signal will also actively off.
Reverse polarity protection	Present
Overload current protection	Present
Power Supply	Redundant Dual DC 52V-56V Power Input
Power Consumption	2 W@52 VDC Without POE
POE power	Maximum POE power 90 Watts at 56VDC input
Removable Terminal Block	Provide 4 pin terminal block
	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)	510,304 hrs (MIL-HDBK-217F) at 25°C
Housing	Rugged Metal, IP30 Protection
Case Dimension (L X W X D) mm	103.5mmx32mmx81.5mm (LxWxD)
Installation mounting	DIN Rail and Wall Mount options included
Certifications:	
Safety	LVD(EN60950-1)
EMC	CE, FCC, EN 55032/24
EMI	CISPR 32, FCC Part 15B Class A
EMS	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
Vibration	EN 60068-2-6
Shock	EN 60068-2-27
Free Fall	EN 60068-2-32

Housing Dimension (mm)



NOTE:

Housing dimension is for 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.