User Manual: PC-BTPMC101-10GE
Industrial Gigabit 10G PoE Media Converter

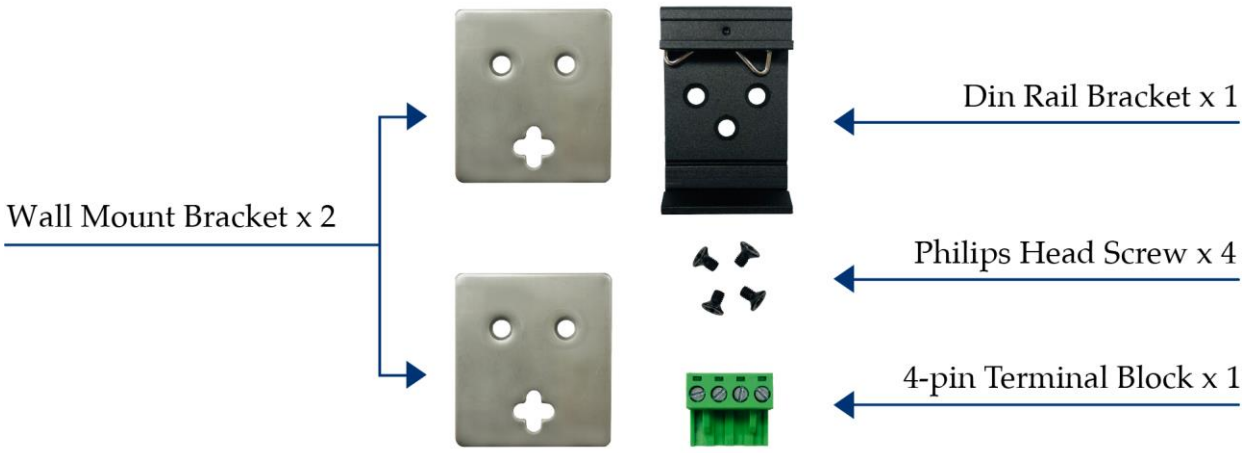
Version 3.2021

Introduction

This Hardened Industrial 10G 802.3bt 90W Media converter is designed with hardened Marvell IC to provide a reliable connection to your remote device in harsh environments. It accepts input voltages from 52VDC to 56VDC. This unit is designed for high-power broadband WIFI, 802.3bt devices, and a broad range of applications where 1G network speeds are insufficient. It is designed for Security, Transportation and Telco application to extend your network distances. With its multi-purpose design, it can be Din-Rail or wall mounted. It is an ideal unit for IP surveillance, traffic monitoring and Security application in critical environment. It can tolerate -40°C to 75°C in harsh environments to maintain a reliable network.

Installation package

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



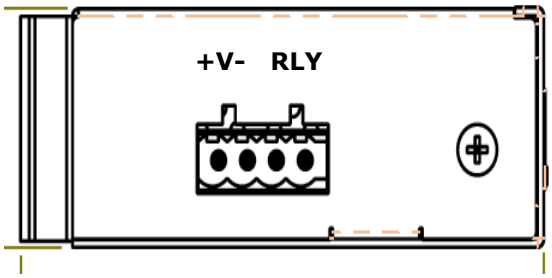
Power connection

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.

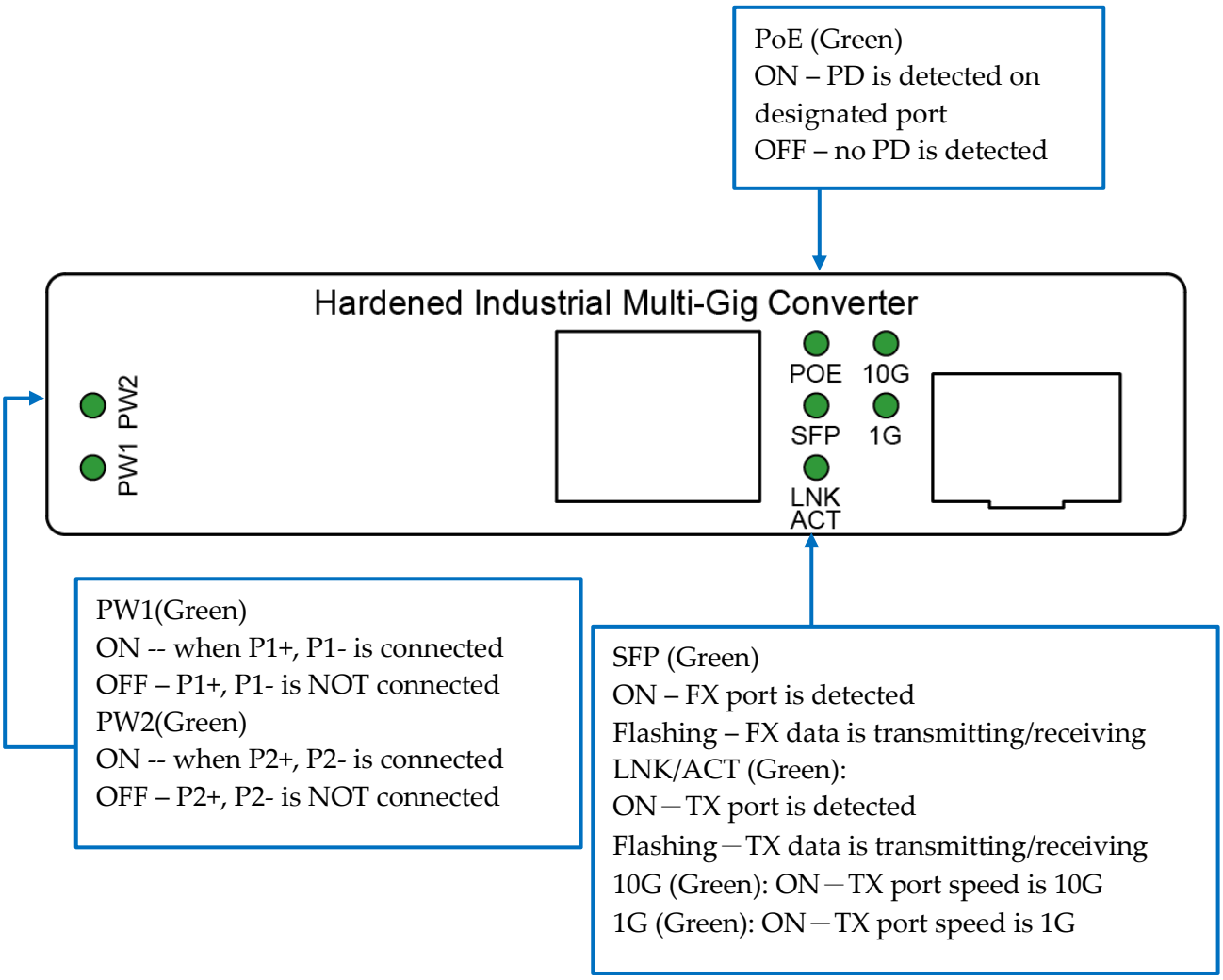
Power connecting procedure:



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.

LED indicator



Specifications

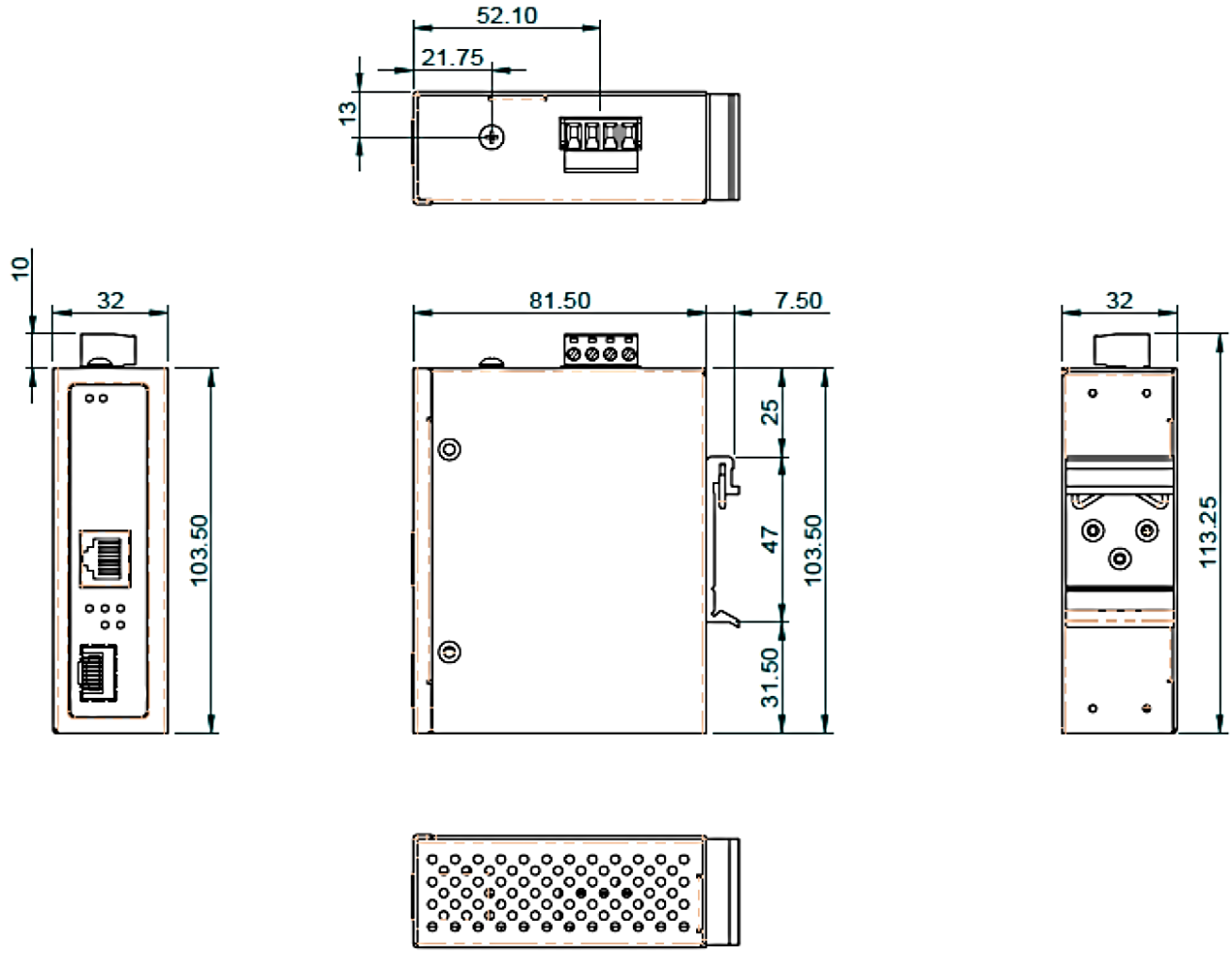
IEEE Standard	IEEE 802.3ab 1000Base-T Gigabit Ethernet IEEE 802.3an 10GBase-T Ethernet IEEE 802.3af for PoE IEEE 802.3at for PoE+/PoE++ IEEE 802.3bt Compliant with 60W uPoE standard Compliant with 95W Power over HDBaseT (PoH) standard
Media Supported	1000Base-T: Cat5 UTP/STP, max. 100 m (330 ft.) 10GBase-T: Cat6a UTP/STP, max. 50 m (164 ft.)
Work Mode	1000Base-T to 1000Base-X 10GBase-T to 10GBase-R
Network Connector	1 xRJ-45 1G/10GBase-T auto negotiation, Auto MDI/MDI-X function, Full/Half duplex 1 x 1G/10GBase-X SFP
Protocol	CSMA/CD
LED	PW1 (Green): ON—Power 1 is detected PW2 (Green): ON—Power 2 is detected
	RJ-45 port: PoE: ON - PSE is in active mode. OFF - PSE is in idle mode. LNK/ACT (Green): ON - TX port is detected Flashing - TX data is transmitting/receiving 10G (Green): ON—TX port speed is 10G 1G (Green): ON—TX port speed is 1G
	SFP port: SFP (Green): ON—SFP port is detected Flashing—data is transmitting/receiving
POE Power	Maximum 70Watts with 56VDC input at environment 75°C Maximum 90Watts with 56VDC input at environment 60°C
POE Pin Assignment	Pin 1 (V-), 2 (V-), 3 (V+), 6 (V+) Pin 4 (V+), 5 (V+), 7 (V-), 8 (V-)
Reverse polarity protection	Present
Overload current protection	Present
Power Supply	4 pin terminal block with 52-56VDC Power Input
Power Consumption	3 W@52 VDC full load
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)	>500,000 hrs (Telcordia (Bellcore), GB) at 50°C
Housing	Rugged Metal, IP30 Protection
Case Dimension (L X W X D)	103.5 mm x 32 mm x 81.5 mm (L x W x D)
Installation mounting	DIN-Rail and wall mount brackets included

Certifications

Safety	LVD (EN62368-1)
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.