

# TPGC-0101T

1x 10/100/1000T X-coded EN50155 PoE injector up to 30W

- IEEE802.3at/af up to 30W PoE output
- Dual power inputs 16.8~56VDC with galvanic isolation between input power, PoE and Ethernet
- Wide Operating Temperature from -25°C ~ 70°C (T3 class)
- IP44 aluminum housing for best heat dissipation and preventing moist ingress
- EN50155 certificate for Railway



## OVERVIEW

Lantech TPGC-0101T is a 1x 10/100/1000T X-coded EN50155 PoE injector with IP44 rated protection which meets the high-reliability requirements demanded by industrial rolling stock or harsh outdoor applications.

### 1 PoE at/af port with PoE galvanic isolation design

Compliant with 802.3af/at standard, the PoE injector is able to feed PoE port up to 30 Watt for PD device.

The built-in PoE galvanic isolation up to 1.5KVDC can provide power input to PoE port insulation to prevent cable short, spike, and surge flooding through PoE cabling from damaging the POE port or connected device.

### Dual 24V input with max PoE budget and Inrush current protection

The TPGC-0101T accepts 16.8~56VDC dual power input and

the inrush current protection can suppress the power-up current to the minimum.

### Extended operational temperature

For greater flexibility in the application, the TPGC-0101T supports an extended operating temperature range from -25°C ~70°C.

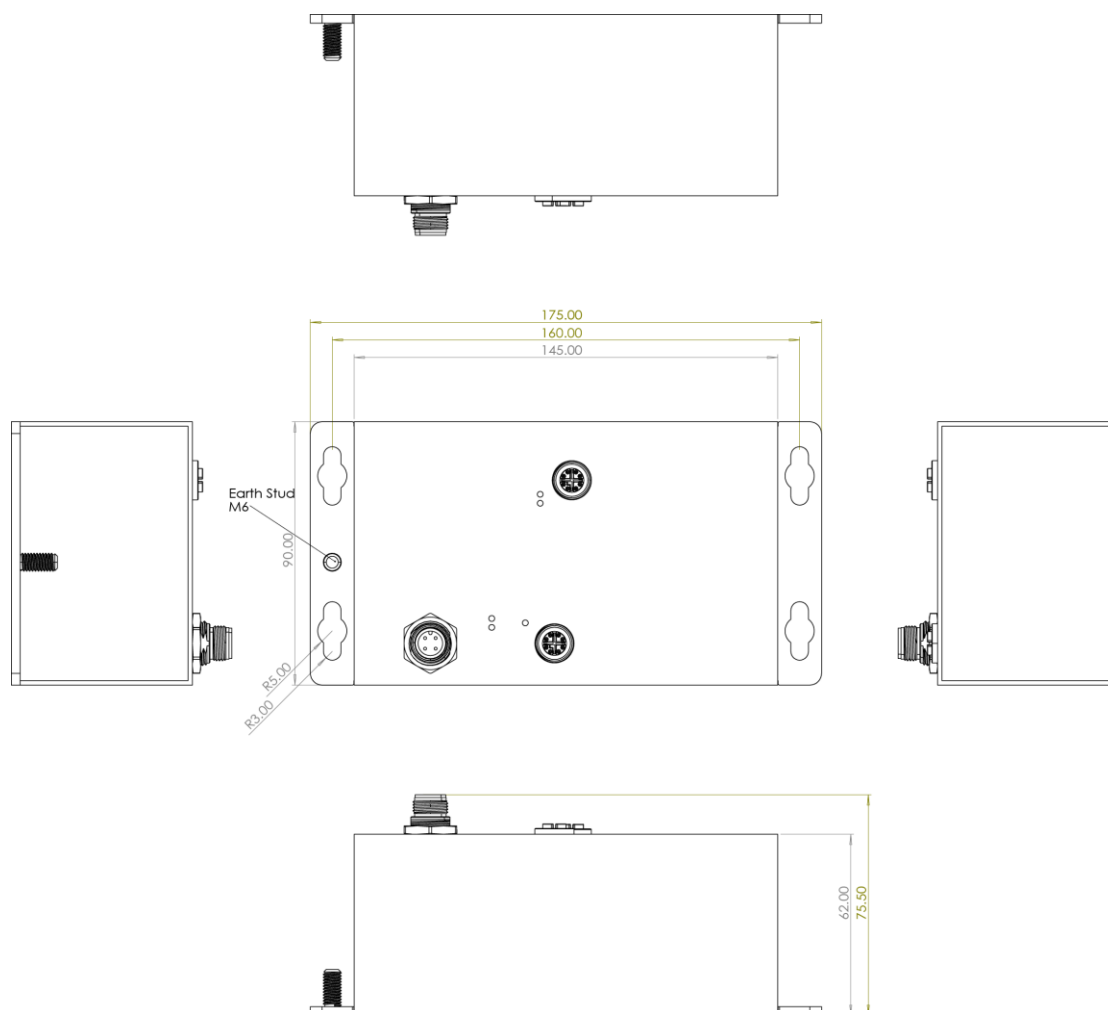
### EN50155, EN45545-2; EN61373 compliance; High ESD protection

TPGC-0101T passed serious tests under extensive Industrial EMI and Safety standards. With EN45545-2 Fire & Smoke and EN50155 verification, the TPGC-0101T is the best PoE injector for railway on-board/track side, vehicle, and mining applications.

## FEATURES & BENEFITS

- 1x 10/100/1000T X-coded EN50155 PoE injector with M12 connectors and IP44 rated protection wall mount design
- Dual 16.8~56VDC input with Polarity protection
- Galvanic isolation from power input/Ethernet ports to system 1.5KV
- Overvoltage peaks 1.5 kV for 45 $\mu$ s (IEC60571)
- Supports IEEE802.3at/af feeding power up to 30W per PoE port
- Wide Operating Temperature -25°C ~70°C
- EN50155, EN45545-2, EN61373

## DIMENSIONS (unit=mm)



## SPECIFICATIONS

| Hardware Specification |  | 10/100/1000T          |  |
|------------------------|--|-----------------------|--|
| IEEE Standard          | IEEE802.3 10BASE-T Ethernet<br>IEEE802.3u 100BASE-T Ethernet<br>IEEE802.3ab 1000Base-T<br>IEEE802.3x Flow Control and Back Pressure<br>IEEE802.3at/af Power over Ethernet  |                       | 1:TXD1+ 5:BD4+<br>2:TXD1- 6:BD4-<br>3:RXD2+ 7:BD3-<br>4:RXD2- 8:BD3+ |
| Transfer Rate          | 14,880pps for Ethernet port<br>148,800pps for Fast Ethernet port<br>1,488,000pps for Gigabit Ethernet port   |                       |  |
| Connector              | Data In 10/100/1000T: 1 x M12, 8-pole X-coded, Female with auto MDI/MDI-X function<br>Data Out 10/100/1000TX: 1 x M12, 8-pole X-coded, Female with auto MDI/MDI-X function<br>Power connector: 1 x M12, 4-pole A coded, Male | Power Supply          | Dual input<br>16.8~56VDC   |
| LED                    | Per unit: Power 1 (Green), Power 2 (Green), Ethernet: Link/Activity (Green)<br>PoE: (Green)  | Power Consumption     | 16.5W with PoE   |
| PoE pin assignment     | M12 Data out port support IEEE 802.3at/af End-point. Per port provides up to 30W   | Power Budget          | Total 30W  |
|                        |  | Operating Humidity    | 5% to 95% (Non-condensing)   |
|                        |  | Operating Temperature | -25°C~70°C (-13°F~158°F)   |
|                        |  | Storage Temperature   | -40°C~85°C (-40°F~185°F)   |
|                        |  | Case Dimension        | Aluminum case,<br>175mm(W)x75.5mm(H)x90mm(D)                         |
|                        |  | Weight                | 500g   |
|                        |  | Installation          | Wall Mount Design  |
|                        |  | EMC                   | FCC Part 15, Subpart B   |

|  |                                  |  |                                     |
|--|----------------------------------|--|-------------------------------------|
|  | ICES-003 Issue7                  |  | BS EN 55035:2017+A11:2020           |
|  | EN 55035:2017/A11:2020           |  | BS EN 55032:2015+A11:2020           |
|  | EN 55032:2015/A11:2020           |  |                                     |
|  | IEC 61000-4-2:2008               |  | Railway compliance EN 50155:2021    |
|  | IEC 61000-4-3:2020               |  | EN 50121-4:2016/A1:2019             |
|  | IEC 61000-4-4:2012               |  | EN 50121-3-2:2016/A1:2019           |
|  | IEC 61000-4-5:2014+AMD1:2017 CSV |  | EN 61373:2010                       |
|  | IEC 61000-4-6:2023               |  | Fire Safety EN45545-2               |
|  | IEC 61000-4-8:2009               |  | MTBF TBC hrs (standards: IEC 62380) |
|  | IEC 61000-6-2:2016               |  | Warranty 5 years                    |
|  | IEC 61000-6-4:2018               |  |                                     |

\*\*Optional

\*Future release

## ORDERING INFORMATION

All model packages include M12 caps and wall mount brackets.

- **TPGC-0101T-1-44-24TVI-C.....P/N: 8450-221**  
1x 10/100/1000T PoE injector up to 30W, dual 16.8~56VDC input; Operating Temperature -25°C to 70°C w/coating

## OPTIONAL ACCESSORIES

### M12 Connector & Cable

#### Connector

- **ECONM12-04A(F)-C-180** 4 pin M12 (Female) A-coded 180 degree crimp type connector for power supply

#### Cable

- **ECONM12-5P(F)70CM CABLE** 5 pin M12 (Female) A-coded 90 degree cable for power supply, 70cm

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