

TPES-0008TD

8 FE PoE M12 Unmanaged Ethernet Switch



OVERVIEW

Lantech TPES-0008TD is a 8 10/100 Base-TX (with 8 ports 802.3at/af PoE ports- PoE model) with M12- Push-Pull connectors unmanaged Ethernet switch with IP67/IP54 rated protection which meets the high-reliability requirements demanded by industrial rolling stock applications. EN50155, ITxPT* and Emarking* certificates ensure the design to be met with world-class criteria.

Embedded Inner-lock push-pull connectors ensure fast installation and connection reliability

The built-in inner-lock push-pull connectors give the switch small-footprint design and for space-saving cabling installation. They ensure quick, tool-free installation with a simple push. Most importantly, their secure locking mechanism provides unwavering reliability, preventing accidental disconnections crucial for network uptime.

Redundant dual 24VI/24TVI input with inrush current prevention and EN50155 verification with high ESD and polarity reverse protection

The TPES-0008TD 24VI model accepts 9~36VDC dual power inputs (24VI model) and 16.8~56VDC dual power inputs (24TVI model) with (PoE) & Ethernet galvanic isolation and PoE model can feed 54V output for PoE feeding with 80W budget. The redundant power input design prevents inrush current and safeguards against polarity reversal.

TPES-0008TD supports up to 8 PoE at/af ports and PoE galvanic isolation PoE model

TPES-0008TD compliance with 802.3af/at standard, the PoE model is able to feed each PoE port up to 30 Watt at each PoE port for various IP PD devices.

PoE galvanic isolation up to 1.5KVDC to provide power input to PoE Ethernet ports insulation prevents cabling and grounding incidents from damaging the Ethernet switch itself.

E-marking* certificate; ISO 16750-2 compliant

The TPES-0008TD is designed to meet with critical network environment with IP54 enclosure and M12 connectors for protection against dust and water. It has passed harsh environmental testing to comply with Industrial EMI and Safety standards as well as stability testing such as Free fall, Shock, and vibration. It also meets the requirements of ISO 16750-2 P5A (24V system DC 174V/8Ω/350ms), reducing the impact of high-frequency pulse voltage that could

be incurred by motor applications.

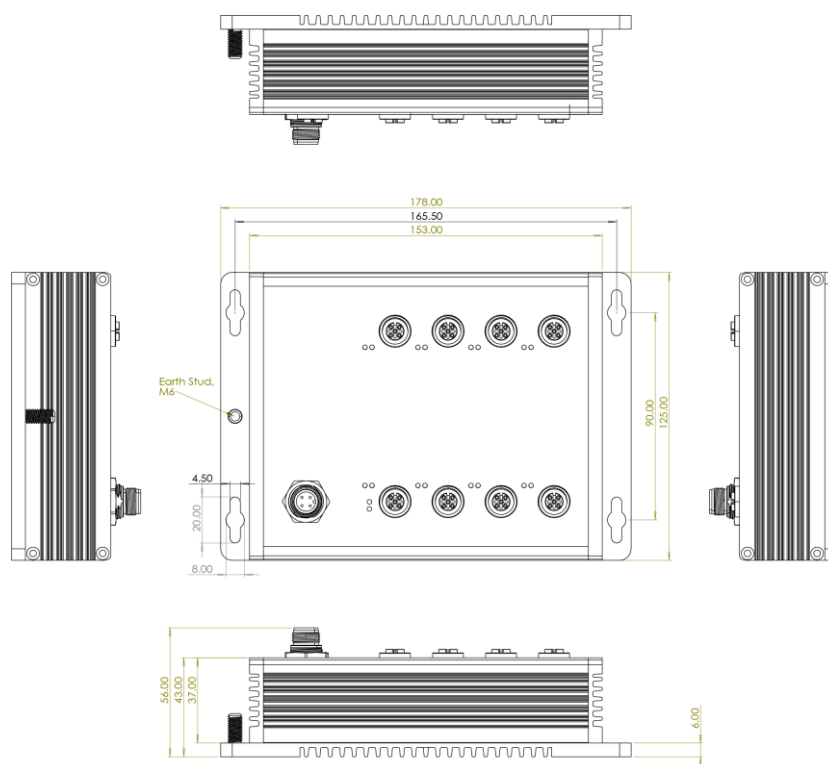
Optional Sleep Mode & efficient PoE timer under Ignition-Off State

Compliant with ITxPT standards, the -IGN model features a 60-minute standby mode after ignition-off, maintaining network operation before entering sleep mode(0.048W)—preventing unnecessary reboots when power is restored.

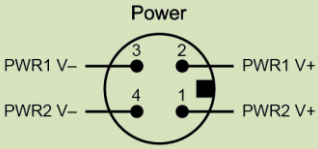
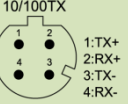
The PoE ignition model also supports a configurable PoE timer, with a default delay of 10 minutes after ignition-off.

DIMENSIONS (unit=mm)

PoE models



SPECIFICATIONS

Hardware Specification		model)
IEEE Standard	IEEE802.3 10BASE-T Ethernet IEEE802.3u 100BASE-T Ethernet IEEE802.3ab 1000Base-T IEEE802.3x Flow Control and Back Pressure IEEE802.3at/af Power over Ethernet (PoE model)	Power 5.06W (w/o PoE load)
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port	Power Budget 80W @ 24VDC and above
Mac Address	16K MAC address table	Operating Humidity 5% to 95% (Non-condensing)
Connector	10/100TX: 8 x M12, 4-pole D-coded, Female Push-Pull connector with auto MDI/MDI-X function Power connector: 1 x M12, 4-pole A coded, Male 	Operating Temperature -40°C ~ 70°C (-40°F ~ 167°F)
LED	Per unit: Power 1 (Green), Power 2 (Green), Ethernet: Link/Activity (Green)	Storage Temperature -40°C ~ 85°C (-40°F ~ 185°F)
PoE pin assignment (PoE model)	M12 port # 1~ # 8 support IEEE 802.3at/af End-point. Per port provides up to 30W  PoE pin assignment: P1,3: V+ P2,4: V-	Case Dimension Aluminum case, IP67/IP54 rated 178mm(W)x125mm(H)x53mm(D)
Power Supply	Dual input 9~36VDC (24VI model); 16.8~56VDC (24TVI	Weight 850g
		Installation Wall Mount Design
		EMC FCC Part 15, Subpart B ICES-003 Issue 7, EN 55035:2017/A11:2020, EN 55032:2015/A11:2020, IEC 61000-4-2:2008, IEC 61000-4-3:2020, IEC 61000-4-4:2012, IEC 61000-4-5:2014+AMD1:2017 CSV, IEC 61000-4-6:2023, IEC 61000-4-8:2009, IEC 61000-6-2:2016, IEC 61000-6-4:2018, EN IEC 61000-6-2:2019, EN IEC 61000-6-4:2019, BS EN 55035:2017+A11:2020, BS EN 55032:2015+A11:2020
		Verification EN 50155: 2021 EN 50121-4: 2016/ A1: 2019 EN 50121-3-2: 2016/ A1: 2019 EN45545-1, EN 45545-2 Fire & Smoke
		Vehicle Certificate E24 marking* (UN ECE R10) ITxPT labeled*
		MTBF TBC

*Future release

**Optional

ORDERING INFORMATION

All model packages include M12 caps and wall mount brackets. All standard models are non-coating; optional coating models are available with -C model name.

- **TPES-0008TD-67-24VI-E-PP.....P/N: 8352-176**
8 10/100TX PoE Unmanaged Ethernet Switch w/PoE & Ethernet galvanic isolation; 9~36VDC dual input; -40°C to 70°C; IP67 rated
- **TPES-0008TD-67-24VI-IGN-E-PP.....P/N: 8352-17601**
8 10/100TX PoE Unmanaged Ethernet Switch w/PoE & Ethernet galvanic isolation; 9~36VDC dual input; -40°C to 70°C; IP67 rated w/ignition
- **TPES-0008TD-67-24TVI-PP.....P/N: 8352-17602**
8 10/100TX PoE Unmanaged Ethernet Switch w/PoE & Ethernet galvanic isolation; 16.8~56VDC dual input; -40°C to 70°C; IP67 rated
- **TPES-0008TD-54-24VI-E-PP.....P/N: 8351-17601**
8 10/100TX PoE Unmanaged Ethernet Switch w/PoE & Ethernet galvanic isolation; 9~36VDC dual input; -40°C to 70°C; IP54 rated
- **TPES-0008TD-54-24VI-IGN-E-PP.....P/N: 8351-17602**
8 10/100TX PoE Unmanaged Ethernet Switch w/PoE & Ethernet galvanic isolation; 9~36VDC dual input; -40°C to 70°C; IP54 rated w/ignition
- **TPES-0008TD-54-24TVI-PP.....P/N: 8351-17603**
8 10/100TX PoE Unmanaged Ethernet Switch w/PoE & Ethernet galvanic isolation; 16.8~56VDC dual input; -40°C to 70°C; IP54 rated

OPTIONAL ACCESSORIES

M12 Connector & Cable

Connector

- **ECON120005PF** 5 pin M12 (Female) A-coded 180 degree crimp type connector for power supply
- **ECONM12-04A(F)-C-180** 4 pin M12 (Female) A-coded 180 degree crimp type connector for power supply
- **ECONM12-04D(M)-C-180** 4 pin M12 (Male) D-coded 180 degree crimp type connector for data

Cable

- **ECONM12-5P(F)70CM CABLE** 5 pin M12 (Female) A-coded 90 degree cable for power supply, 70cm
- **ECONM12-4P(F)1.5M CABLE** 4 pin M12 (Female) A-coded 90 degree cable for power supply, 150cm
- **ECAB124030MJS** 4 pin M12 (Male) D-coded 180 degree RJ45 STP cable for data, 300cm
- **ECONM12-05A(F) to MCP 6P-20CM CABLE** 5 pin M12 (Female) A-coded 180 degree to 6 pin MCP power cable, 20cm (For ignition models)

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Revision Record