T(P)ES-0208TD

8 FE + 2 GE (PoE) M12 Unmanaged Ethernet Switch

OVERVIEW

Lantech T(P)ES-0208TD is an unmanaged Ethernet switch with 8 10/100TX and 2 10/100/1000T ports, equipped with M12 connectors. Designed with IP67/IP54-rated protection, it fulfills the high-reliability requirements of industrial rolling stock applications. With EN50155, ITxPT, and E-marking* certifications, it ensures compliance with world-class standards.

Redundant dual 24VI/24TVI input with inrush current prevention and EN50155 verification with high ESD and polarity reverse protection ; PoE model supports up to 8 PoE at/af ports and PoE galvanic isolation

Complying with IEEE 802.3af/at standards, the PoE model to supply up to 30W per port with a total PoE budget of 80W for various IP PD devices. PoE galvanic isolation up to 1.5KVDC ensures insulation between the power input and PoE Ethernet ports, preventing cabling or grounding incidents from damaging the switch.

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.

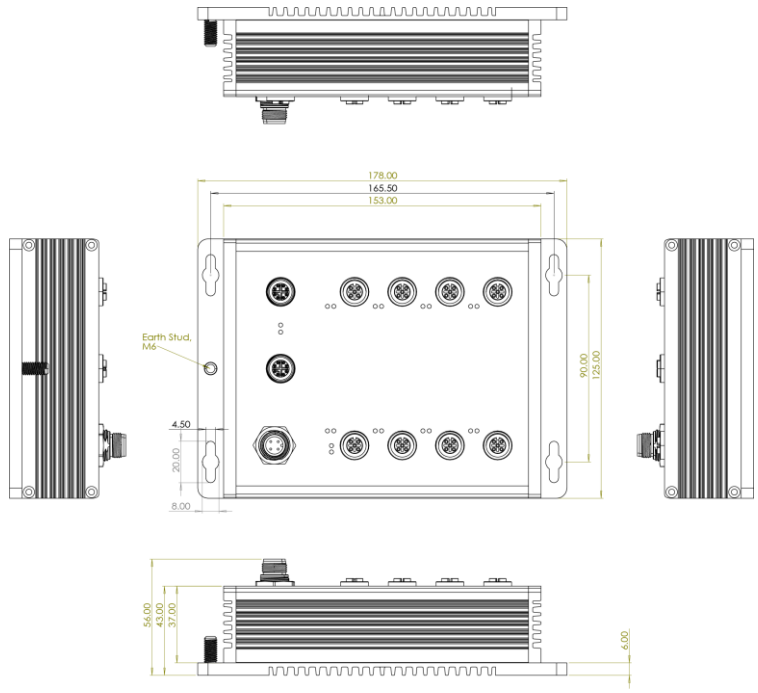
The PoE ignition model also supports a configurable PoE timer, with a default delay of 10 minutes after ignition-off.

E-marking certificate*; ISO 16750-2 P5A compliant

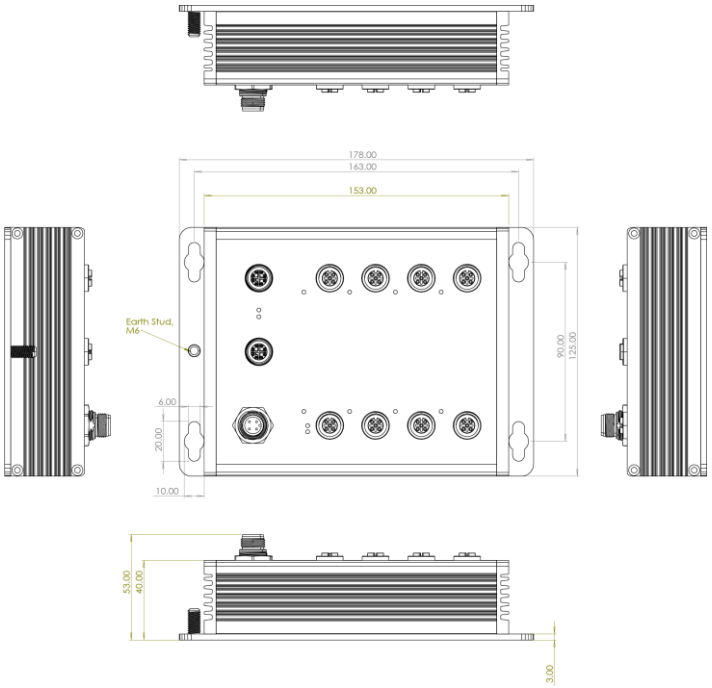
T(P)ES-0208TD features IP54 enclosure with M12 connectors for dust/water protection, compliant with EMI, safety, free fall, shock, vibration tests, and ISO 16750-2 P5A to resist motor pulse voltages, effectively minimizing the impact of high-frequency pulse voltages commonly generated by motor applications.

DIMENSIONS (unit=mm)

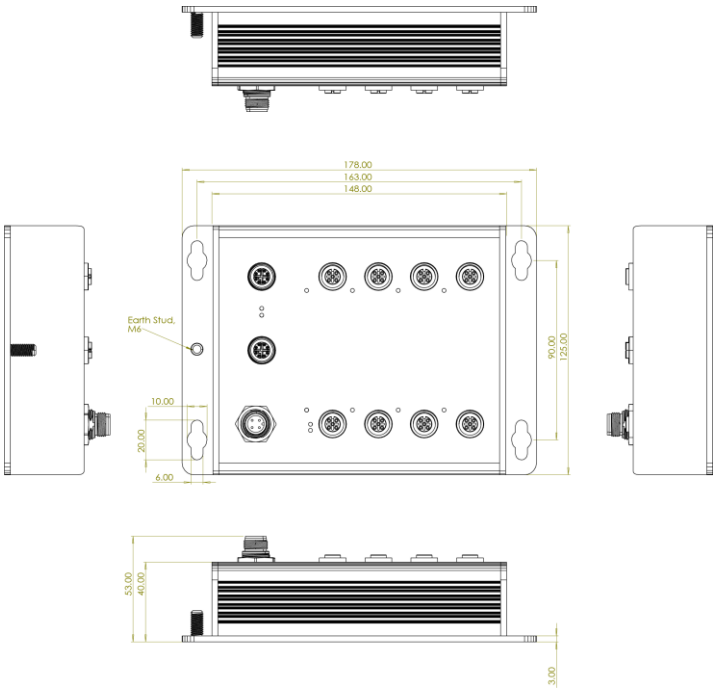
PoE models



Non-PoE models (IP67)

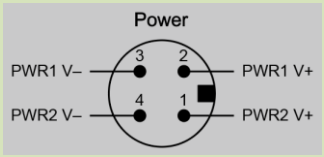
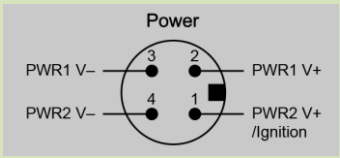


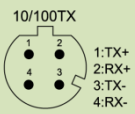
Non-PoE models (IP54)



SPECIFICATIONS

Hardware Specification

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)
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port 1,488,000pps for Gigabit Ethernet por
Mac Address	16K MAC address table
Connector	10/100TX: 8 x ports M12 4-pole D-coded Push-Pull connector with Auto MDI/MDI-X function 10/100/1000T: 2 x M12, 8-pole X-coded Push-Pull connector with auto MDI/MDI-X function Power connector: 1 x M12, 4-pole A-coded Push-Pull connector Non-IGN model  IGN model 

LED	Per unit: Power 1 (Green), Power 2 (Green), Ethernet: Link/Activity (Green) PoE: Active (Green)
PoE pin assignment (PoE model)	M12 port # 1~ # 8 support IEEE 802.3at/af End-point. Per port provides up to 30W 10/100TX  1:TX+ 2:RX+ 3:TX- 4:RX- PoE pin assignment: P1,3: V+ P2,4: V-
Power Supply	Dual input 9~36VDC (24VI model) 16.8~56VDC (24TVI model)
Power Consumption	TBC
Power Budget	Total 80W @ 24VDC and above
Operating Humidity	5% to 95% (Non-condensing)
Operating Temperature	-40°C ~ 75°C (-40°F ~ 167°F)
Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)
Case Dimension	Aluminum case, IP67/IP54 rated 178mm(W)x125mm(H)x53mm(D)
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),R118 ITxPT labeled
MTBF	TBC

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; for push-pull inner-lock connector model add -PP

- **TPES-0208TD-8-54-24VI-IGN-E…..…….....…....P/N:8351-178**
  8 10/100TX w/8 PoE at/af + 2 10/100/1000T M12 connectors IP54 rated EN50155 Unmanaged Ethernet Switch; -40°C to 75°C; 9~36VDC dual input w/ PoE & Ethernet galvanic isolation; w/ignition
- **TPES-0208TD-8-54-24TVI-E…..…….....P/N:8351-1781**
  8 10/100TX w/8 PoE at/af + 2 10/100/1000T M12 connectors IP54 rated EN50155 Unmanaged Ethernet Switch; -40°C to 75°C; 16.8~56VDC dual input w/ PoE & Ethernet galvanic isolation
- **TPES-0208TD-8-54-24VI-E…..…….....….....P/N:8351-1784**
  8 10/100TX w/8 PoE at/af + 2 10/100/1000T M12 connectors IP54 rated EN50155 Unmanaged Ethernet Switch; -40°C to 75°C; 9~36VDC dual input w/ PoE & Ethernet galvanic isolation
- **TES-0208TD-54-24VI-IGN-E…..…….....….....P/N:8351-1782**
  8 10/100TX + 2 10/100/1000T M12 connectors IP54 rated EN50155 Unmanaged Ethernet Switch; -40°C to 75°C; 9~36VDC dual input w/Ethernet galvanic isolation; w/ignition
- **TES-0208TD-54-24TVI-E…..…….....….....P/N:8351-1783**
  8 10/100TX + 2 10/100/1000T M12 connectors IP54 rated EN50155 Unmanaged Ethernet Switch; -40°C to 75°C; 16.8~56VDC dual input w/Ethernet galvanic isolation
- **TES-0208TD-54-24VI-E…..…….....….....P/N:8351-1785**
  8 10/100TX + 2 10/100/1000T M12 connectors IP54 rated EN50155 Unmanaged Ethernet Switch; -40°C to 75°C; 9~36VDC dual input w/Ethernet galvanic isolation

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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