

TPES-0008CB

8 FE PoE Rail & Vehicle Unmanaged Ethernet Switch



OVERVIEW

Lantech TPES-0008CB is an 8 10/100 Base-TX with M12-connectors EN50155, ITxPT, E-mark unmanaged Ethernet PoE switch with IP54 rated protection which meets the high-reliability requirements demanded by onboard applications.

Redundant dual 24VI/24TVI input with max PoE 80W budget; inrush current prevention and polarity reverse protection

TPES-0008CB 24VI model accepts 9~36VDC dual input and 24TVI model accepts 16.8~56VDC with galvanic isolation to PoE and all Ethernet ports. PoE feeding with 80W budget from internal power. The redundant power input design prevents inrush current and safeguards against polarity reversal.

E-marking certificate, ITxPT; ISO 7637-2 compliant and extended working temperature; ISO 16750-2 P5A compliant

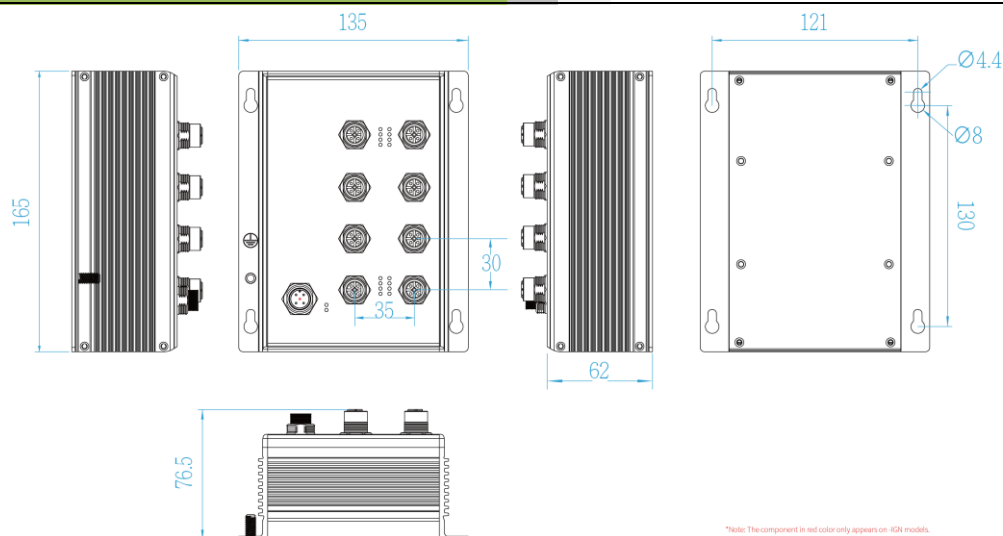
Certified with ITxPT and ISO 7637-2, it safeguards against high voltage surges during vehicle crank starts. Supporting -40°C to 75°C operation and ISO 16750-2 P5A compliance, it effectively minimizes high-frequency pulse voltages from motor applications.

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)



SPECIFICATIONS

Hardware Specification		Power Budget	Total 80W @ 24VDC and above
IEEE Standard	IEEE802.3 10BASE-T Ethernet IEEE802.3u 100BASE-T Ethernet IEEE802.3x Flow Control and Back Pressure IEEE802.3at/af Power over Ethernet (For PoE Model)	Operating Humidity	5% to 95% (Non-condensing)
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port	Operating Temperature	-40°C ~ 75°C (-40°F ~ 167°F)
Mac Address	16K MAC address table	Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)
Connector	10/100TX: 8 x M12, 4-pole D-coded, Female with auto MDI/MDI-X function Power connector: 1 x M12, 4-pole A coded, Male 1 x M12, 5-pole A-coded, Male (-IGN model)	Case Dimension	Aluminum case, IP54 rated 135mm(W)x165mm(H)x76.5mm(D)
	Power connector pinout diagram showing PWR1, PWR2, V+, V-, and Ignition pins.	Weight	700g
LED	Per unit: Power 1 (Green), Power 2 (Green), Ethernet: Link/Activity (Green) PoE: (Green)	Installation	Wall Mount Design
PoE pin assignment	M12 port # 1 ~ # 8 support IEEE 802.3at/af End-point. Per port provides up to 30W 10/100TX pinout diagram showing TX+, TX-, RX+, and RX- pins.	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
Power Supply	Dual input 9~36VDC (24VI model) 16.8~56VDC (24TVI model)	Stability Testing	EN 61373:2010 (Shock and Vibration)
Power Consumption	3.5W without PoE	Verifications & Report	EN 50155:2021, EN 50121-4:2016/A1:2019, EN 50121-3-2:2016/A1:2019, EN 50124-1:2017, EN 45545-1, EN 45545-2 Fire & Smoke verification
		Vehicle certificate	E24 marked (24VI model), R118 ITxPT labeled (24VI-IGN model)
		MTBF	1,240,250 hours 1,502,043 hours (Non PoE)

*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. IGN model has two shut-down periods totaling 60 min, including a default PoE OFF timer of 10 min. *PoE timer can be customized on request.

- **TPES-0008CB-54-24VI.....P/N: 8351-142**
8 10/100TX IP54 rated PoE at/af Ethernet Switch w/M12 connectors; -40°C to 75°C; 9~36VDC dual input; E-marking certified ; w/PoE & ethernet galvanic isolation
- **TPES-0008CB-54-24TVI.....P/N: 8351-1421**
8 10/100TX IP54 rated EN50155 PoE at/af Ethernet Switch w/M12 connectors; -40°C to 75°C; 16.8~56VDC dual input ; w/ PoE & ethernet galvanic isolation
- **TPES-0008CB-54-24VI-IGN.....P/N: 8351-1422**
8 10/100TX IP54 rated EN50155 PoE at/af Ethernet Switch w/M12 connectors; -40°C to 75°C; 9~36VDC dual input; E-marking and ITxPT certified w/ignition; w/PoE & 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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