T(P)ES-0008CA

8 10/100TX (PoE at/af) Industrial Ethernet Switch

- *IEEE802.3at/af up to 30W PoE output (for PoE model)*
- *Dual power inputs 9~36V (24V model)*
- *Wide Operating Temperature from -40℃ to 75℃*
- *IP54/IP41 Aluminum housing for best heat dissipation and preventing moist ingress*
- *E-mark certificate for vehicle (24V model)*
- *ITxPT labeled w/ignition function (24V-IGN model)*

OVERVIEW

Lantech T(P)ES-0008CA is an 8 10/100 Base-TX with M12-connectors industrial unmanaged Ethernet switch with IP54/IP41 rated protection which meets the high reliability requirements demanded by industrial vehicle applications.

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

The T(P)ES-0008CA 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 is labeled with ITxPT public transport standards and also compliant with ISO 7637-2 which protects switch from being damaged by high voltage that could be found at vehicle cranky start.

For a greater flexibility in application the T(P)ES-0008CA supports an extended operating temperature range from -40°C to 75°C.
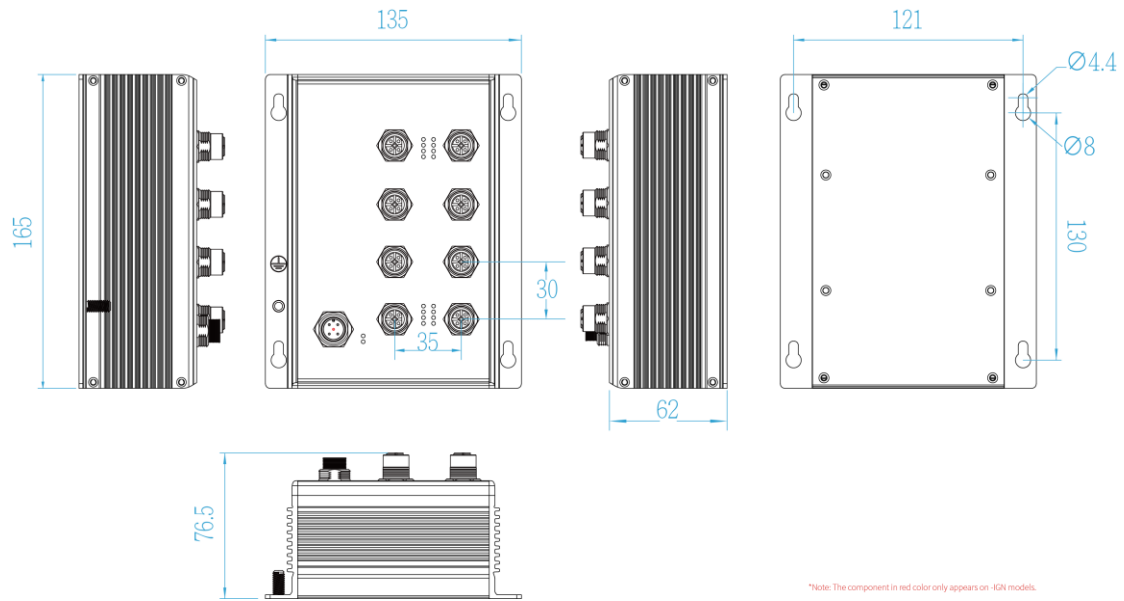
The E-marking certificate makes it the most suitable switch for bus, carriage, other vehicles application as well as for industrial areas where the power source is limited with 12V or 24V but has demand of IP surveillance or VoIP applications.
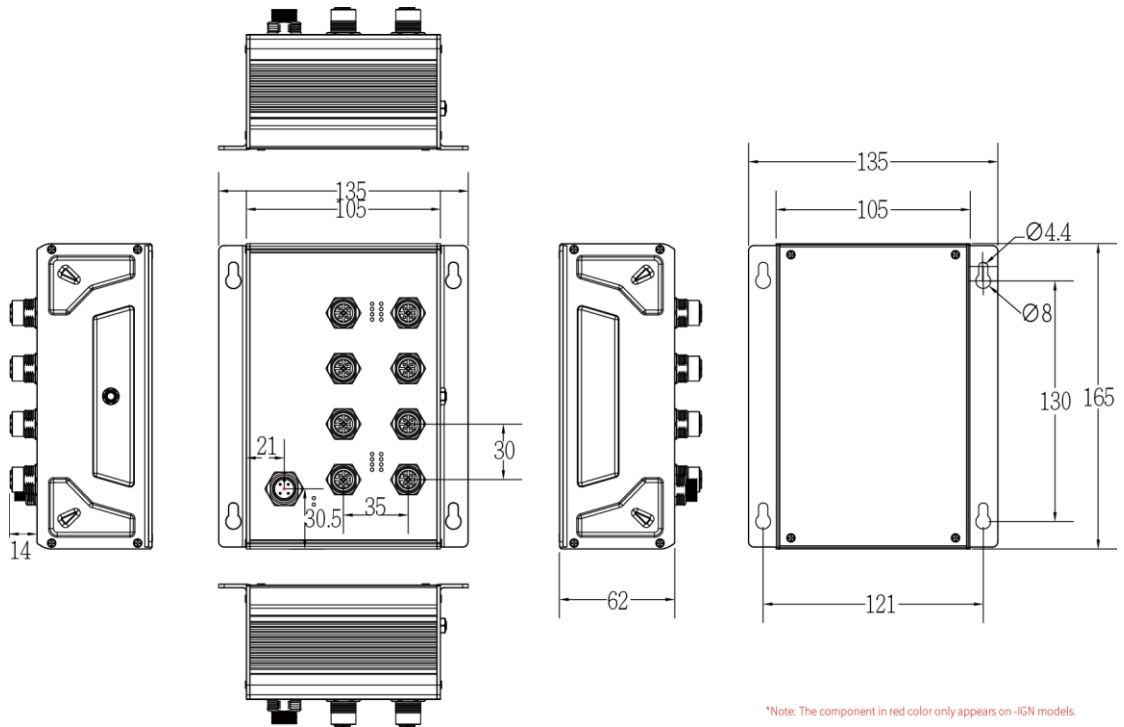
FEATURES & BENEFITS

- **8 10/100TX Unmanaged Industrial Ethernet Switch with M12 connectors and IP54/IP41 rated protection**
- **Supports IEEE802.3at/af feeding power up to 30W per PoE port (for PoE model)**
- **Back-plane (Switching Fabric): 1.6 Gbps**
- **8K MAC address table**
- **Wide Operating Temperature (-40°C ~75°C)**
- **Din rail** and wall mount design**
- **E-mark certificate for vehicle (24V model)**
- **ITxPT labeled w/ ignition function (24V-IGN model)**

DIMENSIONS (unit=mm)

IP54 model

*Note: The component in red color only appears on -IGN models.

IP41 model

*Note: The component in red color only appears on -IGN models.

SPECIFICATIONS

Hardware Specification

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)
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port
Mac Address	8K MAC address table
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)

Power
PWR1   PWR2
V+ — 2 ● ● 1 — V+
      ● 5
V- — 3 ● ● 4 — V-
          Ignition

Rotary Switch	Rotary switch for delay time configuration (-24V-IGN model)
LED	Per unit: Power 1 (Green), Power 2 (Green), Ethernet: Link/Activity (Green) PoE: (Green)
PoE pin assignment	M12 port # 1~ # 8 support IEEE 802.3at/af End-point. Per port provides up to 30W (-6 model: M12 port #1~#6 support IEEE 802.3at/af End-point)

10/100TX
1 2
4 3
1:TX+
2:RX+
3:TX-
4:RX-

Power Supply	Dual input 9~36VDC (24V model)
Power	3.5W without PoE (24V model)

Consumption	
Power Budget	Total 100W @ 24VDC and above Higher PoE budget can be applied upon request. ** **Note: This is a non-PoE galvanic isolated model.**
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, 135mm(W)x165mm(H)x76.5mm(D) (IP54 model) 135mm(W)x165mm(H)x76mm(D) (IP41 model)
Weight	700g
Installation	Wall Mount Design
EMC	FCC Class A, CE EN55011, CE EN61000-4-2 (ESD), CE EN61000-4-3 (RS), CE EN61000-4-4 (EFT), CE EN61000-4-5 (Surge), CE EN61000-4-6 (CS), CE EN61000-4-8 (Magnetic Field), CE EN61000-6-2, CE EN61000-6-4, CE EN55032, CE EN55024 BS EN61000-4-2, BS EN61000-4-3, BS EN61000-4-4, BS EN61000-4-5, BS EN61000-4-6, BS EN61000-4-8, BS EN55032, BS EN55024
Stability Testing	EN61373 (Shock and Vibration)
Vehicle certificate	E13 marking (24V model) ITxPT labeled (24V-IGN model)
MTBF	1,240,250 hours 1,502,043 hours (Non PoE)
Warranty	5 years

**Optional

ORDERING INFORMATION

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

■ **TPES-0008CA-54-24V…..…………...……….......P/N: 8351-1241**
8 10/100TX IP54 rated PoE at/af Industrial Ethernet Switch w/M12 connectors; -40°C to 75°C; 9~36VDC dual input; E-marking certified

■ **TPES-0008CA-6-54-24V…..…………...………...P/N: 8351-12491**
8 10/100TX w/6 PoE at/af Industrial Ethernet Switch IP54 rated w/M12 connectors; -40°C to 75°C; 9~36VDC dual input; E-marking certified

■ **TPES-0008CA-54-24V-IGN.…………...………......P/N: 8351-1242**
8 10/100TX IP54 rated Industrial PoE at/af Ethernet Switch w/M12 connectors; -40°C to 75°C; 9~36VDC dual input; E-marking and ITxPT certified w/ignition

■ **TPES-0008CA-6-54-24V-IGN.…………...………....P/N: 8351-12492**
8 10/100TX w/6 PoE at/af Industrial Ethernet Switch IP54 rated w/M12 connectors; -40°C to 75°C; 9~36VDC dual input; E-marking and ITxPT certified w/ignition

■ **TPES-0008CA-41-24V…..…………...……….…......P/N: 8351-1247**
8 10/100TX IP41 rated PoE at/af Industrial Ethernet Switch w/M12 connectors; -40°C to 75°C; 9~36VDC dual input; E-marking certified

■ **TPES-0008CA-6-41-24V…..…………...……….…....P/N: 8351-12494**
8 10/100TX w/6 PoE at/af Industrial Ethernet Switch IP41 rated w/M12 connectors; -40°C to 75°C; 9~36VDC dual input; E-marking certified

- **TPES-0008CA-41-24V-IGN.………....…......P/N: 8351-1248**
  8 10/100TX IP41 rated Industrial PoE at/af Ethernet Switch w/M12 connectors; -40°C to 75°C; 9~36VDC dual input; E-marking and ITxPT certified w/ignition
- **TPES-0008CA-6-41-24V-IGN.………...…........P/N: 8351-12495**
  8 10/100TX w/6 PoE at/af Industrial Ethernet Switch IP41 rated w/M12 connectors; -40°C to 75°C; 9~36VDC dual input; E-marking and ITxPT certified w/ignition
- **TES-0008CA-54-24V…..………....……….....P/N: 8351-5659**
  8 10/100TX IP54 rated Industrial Ethernet Switch w/M12 connectors; -40°C to 75°C; 9~36VDC dual input; E-marking certified
- **TES-0008CA-54-24V-IGN.………...………......P/N: 8351-56591**
  8 10/100TX IP54 rated Industrial Ethernet Switch w/M12 connectors; -40°C to 75°C; 9~36VDC dual input; E-marking and ITxPT certified w/ignition
- **TES-0008CA-41-24V…..………....……….......P/N: 8351-1324**
  8 10/100TX IP41 rated Industrial Ethernet Switch w/M12 connectors; -40°C to 75°C; 9~36VDC dual input; E-marking certified
- **TES-0008CA-41-24V-IGN.………...…….….......P/N: 8351-1325**
  8 10/100TX IP41 rated Industrial Ethernet Switch w/M12 connectors; -40°C to 75°C; 9~36VDC dual input; E-marking and ITxPT certified w/ignition

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)

Lantech Communications Global Inc.

www.lantechcom.tw
info@lantechcom.tw