IPES-0008B (IP54/IP41)

8 10/100TX PoE at/af EN50155 Ethernet Switch

- *EN50155/50121-3-2/50121-4 and EN45545-2 Fire & Smoke verification*

- *E-mark certificate for vehicle (12V model)*

- *Provides M12 connector with IP41/IP54 rated protection*

- *IEEE802.3at/af up to 30W PoE output*

- *12V power input boost to 54V output (12V model)*

- *72V input steps down to 54V output for IEEE 802.3at/af max.80W (72V model)*

- *Wide Operating Temperature from -40℃ to 75℃*

- *Wide range redundant power inputs*

- *Supports ISO 7637-2 Pulse 5a (12V model)*

IP54 model

IP41 model

OVERVIEW

Lantech IPES-0008B (IP41/IP54) is an 8 10/100 Base-TX with M12-connctor unmanaged industrial Ethernet switch for IP41/IP54 rated protection, which meets the high reliability requirements demanded by industrial rolling stock applications.

The IPES-0008B (IP41/IP54) supports IEEE802.3at/af standard which can feed HI-power up to 30W at each PoE port for big power consumption devices like PTZ IP camera, High power wireless AP etc. The IPES-0008B-12V is able to take 12V input and boost to 54V output for PoE feeding in vehicle use with IEEE802.3at/af standard up to 30W per PoE port with maximum 120W output. 72V model accept 72V input and can feed 54V PoE at max 80W.

The IPES-0008B (IP41/IP54) is designed to meet with critical network environment with IP41/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. For a greater flexibility in application the IPES-0008B (IP41/IP54) supports an extended operating temperature range from -40°C to 75°C.

The IPES-0008B (IP41/IP54) is compliant with EN50155/ 50121-3-2/ 50121-4 verification (railway applications), EN45545-2 Fire & Smoke verification, E-mark certificate for vehicle making the switch suitable for various industrial rolling stock applications.
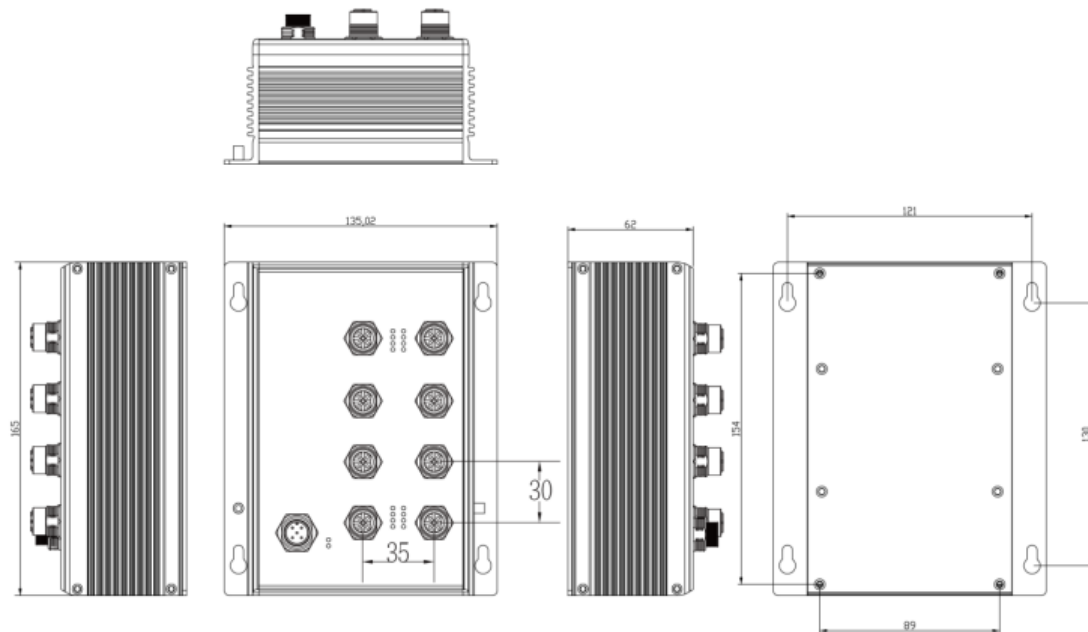
The 12V model is also compliant with ISO 7637-2 Pulse 5a (12V model) which protects switch from being damaged by high voltage that could be found at vehicle cranky start.
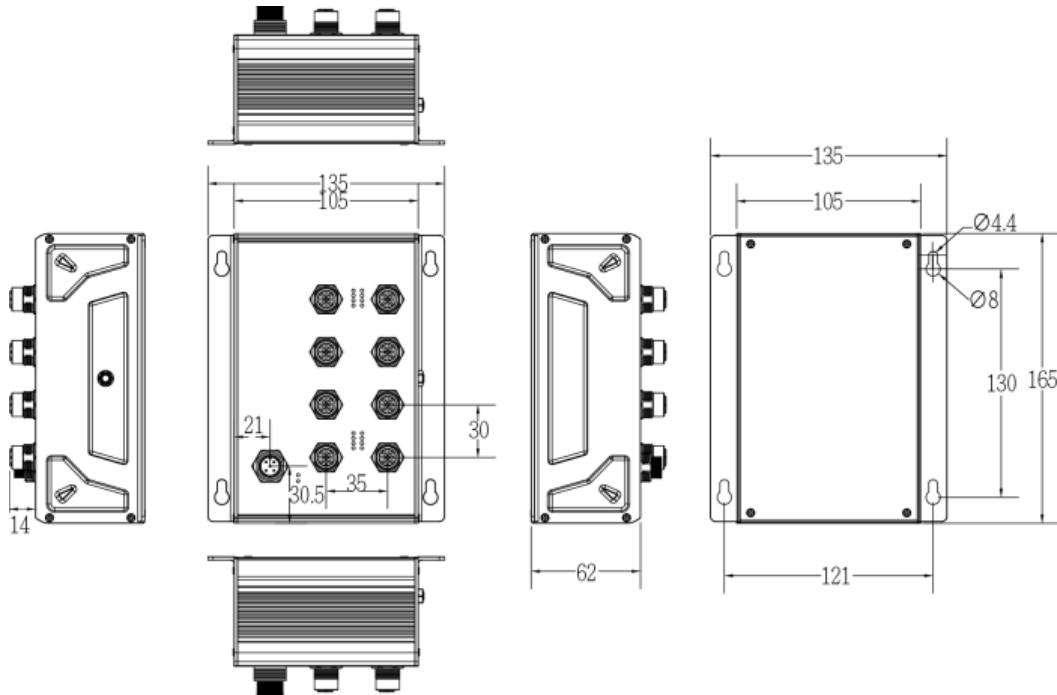
FEATURES & BENEFITS

- 8 10/100TX Unmanaged Industrial Ethernet Switch with M12 connectors and IP41/IP54 rated protection

- Supports IEEE802.3at/af feeding power up to 30W per PoE port

- Dual power input voltage 9~56V for PoE 802.3at/af maximum 120W PoE budget (12V model)

- Dual power input voltage 9~36V for PoE 802.3at/af maximum 120W PoE budget (12V -5A model)

- 72V input model (50.4~90V) allow maxi. 80W PoE budget

- 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 (12V model)

- EN50155/50121-3-2/50121-4 and EN45545-2 Fire & Smoke verification

DIMENSIONS (unit=mm)

IP54 model

IP41 model

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
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port
Mac Address	8K MAC address table
Connector	10/100T: 8 x M12, 4-pole D-coded, Female with auto MDI/MDI-X function Power connector: 1 x M12, 5-pole A-coded, Male
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 10/100TX 1:TX+ 2:RX+ 3:TX- 4:RX-
Power Supply	Dual input 9~56VDC (12V model) 9~36VDC (12V -5A model) 50.4~90VDC (72V model)
Power Consumption	10W for 12/24VDC 13.5W for 72V
Power Budget	60W for 12V input (80W at dual power input) 120W for 24V/36V input 80W for 72V Input (54V input is recommended for PTZ or heater

	applications)
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, IP-54 135mm(W)x165mm(H)x76mm(D) Aluminum case, IP-41 135mm(W)x165mm(H)x76mm(D)
Weight	700g
Installation	Wall Mount Design
EMC	FCC Class A, CE EN55011, CE EN61000-4-2 (ESD), CE EN61000-4-3 (RS), CE EN-61000-4-4 (EFT), CE EN61000-4-5 (Surge), CE EN61000-4-6 (CS), CE EN61000-4-8 (Magnetic Field), CE EN55032, CE EN55024
Stability Testing	EN61373 (Shock and Vibration)
Verifications & Report	EN50155/EN50121-3-2/EN50121-4 verification EN45545-2 R13/R22/R23/R24/R25 (EN ISO 4589-2, EN ISO 5659-2, NF X70-100-1 & 2) Fire & Smoke verification E-mark certificate (12V model) ISO 7637-2 Pulse 5a (12V model)
MTBF	12V: 964,373 (Hrs) 24V: 864,663 (Hrs) 72V: 842,802 (Hrs)
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.

- **IPES-0008B-41-12V**…..………….…..…….........**P/N: 8360-5661**
  8 10/100TX IP41 rated EN50155 PoE at/af Ethernet Switch w/M12 connectors; -40°C to 75°C; 9~56VDC dual input

- **IPES-0008B-41-72V**…..………….…..…….........**P/N: 8360-5701**
  8 10/100TX IP41 rated EN50155 PoE at/af Ethernet Switch w/M12 connectors; -40°C to 75°C; 50.4~90VDC dual input

- **IPES-0008B-54-12V**…..………….…..…….........**P/N: 8360-5663**
  8 10/100TX IP54 rated EN50155 PoE at/af Ethernet Switch w/M12 connectors; -40°C to 75°C; 9~56VDC dual input

- **IPES-0008B-54-72V**…..………….…..…….........**P/N: 8360-5702**
  8 10/100TX IP54 rated EN50155 PoE at/af Ethernet Switch w/M12 connectors; -40°C to 75°C; 50.4~90VDC dual input

OPTIONAL ACCESSORIES

M23 / M12 Connector & Cable

- **ECON120005PF** — 5 Pin M12 Power Female Connector
- **ECONM12-5P(F)70CM CABLE** — 5 Pin M12 Power Female 90C angle Connector+ 70 CM Cable
- **ECAB124030MJS** — 4 Pin M12 RJ45 Male 3 Meters; STP Cable

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