IPES-0005B (IP41)

5 10/100TX PoE at/af Industrial Switch

■ *EN50155/50121-3-2/50121-4 and EN45545-2 R24/R25 Fire & Smoke verification*

■ *E-mark certificate for vehicle*

■ *Provides M12 connector with IP41 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*

OVERVIEW

Lantech IPES-0005B (IP41) is a 5 10/100 Base-TX with M12-connctor unmanaged industrial switch for IP41 rated protection, which meets the high reliability requirements demanded by industrial rolling stock applications.

The IPES-0005B (IP41) 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-0005B-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 80W output. 72V model accept 72V input and can feed 54V PoE at max 80W.
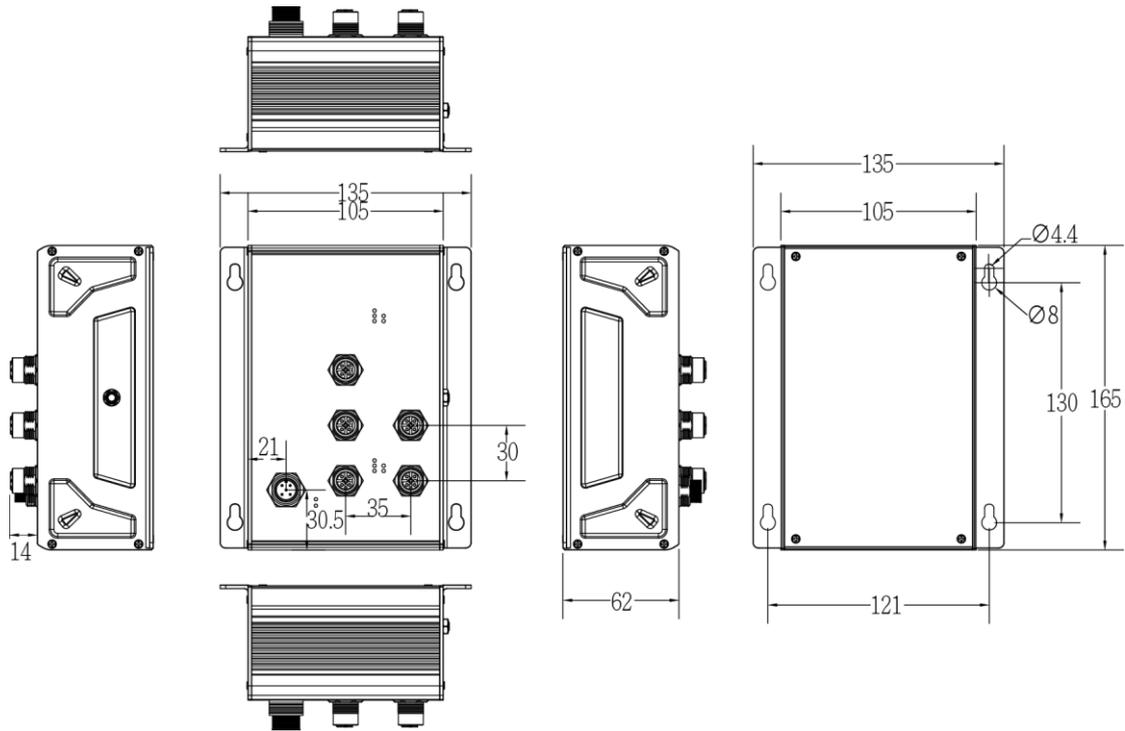
The IPES-0005B (IP41) is designed to meet with critical network environment with IP41 enclosure and M12 connectors for protection against dust and water. It has passed harsh environmental testing to comply with Industrial EMI and Safety standards as well as stability testing such as Free fall, Shock, and Vibration. For a greater flexibility in application the IPES-0005B (IP41) supports an extended operating temperature range from -40°C to 75°C.

The IPES-0005B (IP41) is compliant with EN50155/ 50121-3-2/ 50121-4 verification (railway applications), EN45545-2 R24/R25 Fire & Smoke verification, E-mark certificate for vehicle, making the switch suitable for various industrial rolling stock applications.

FEATURES & BENEFITS

■ **5 10/100TX Unmanaged Industrial Switch with M12 connectors and IP41 rated protection**

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

■ **Accept input voltage 12V and boost to 48V/54V for PoE 802.3at/af maximum 80W output (12V model)**

■ **72V input model allow maxi. 80W PoE budget**

■ **Dual Power Design with wide DC12/24 input (12V model); 48V input (48V model); 72V input (72V model)**

■ **Back-plane (Switching Fabric): 1.0 Gbps**

■ **8K MAC address table**

■ **Wide Operating Temperature (-40℃ ~75℃)**

■ **Din rail** and wall mount design**

■ **E-mark certificate**

■ **EN50155/50121-3-2/50121-4 and EN45545-2 R24/R25 Fire & Smoke verification**

DIMENSIONS (unit=mm)

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: 5 x M12, 4-pole D-coded, Female with auto MDI/MDI-X function
	Power connector: 1 x M12, 5-pole A-coded, Male
Protocol	CSMA/CD
LED	Per unit: Power 1 (Green), Power 2 (Green), Ethernet: Link/Activity (Green)
PoE pin assignment	M12 port # 1~#5 support IEEE 802.3at/af End-point, Alternative A mode. Per port provides 30W PoE at/ 15W PoE af.
	10/100TX
	1:TX+
	2:RX+
	3:TX-
	4:RX-
Power Supply	Dual input
	9.5~56VDC for PoE feeding (12V model)
	44~56VDC for PoE feeding (48V model)
	50.4~90VDC for PoE feeding (72V model)
Power Consumption	10W for 12/24/48VDC
	13.5W for 72V
Power Budget	80W for 12V input
	120W for 24V/48V input

	80W for 72V Input
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-41 135mm(W)x165mm(H)x62mm(D)
Weight	700g
Installation	Wall Mount Design
EMC	FCC Class A, 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 EN55022 Class A, CE EN55024
Stability Testing	IEC61373 (Shock), EN61373 (Shock and Vibration)
MTBF	1,077,981 hours
Verifications & Report	EN50155/EN50121-3-2/EN50121-4 verification EN45545-2 R24/R25 (EN ISO 4589-2, EN ISO 5659-2, NF X70-100-1 & 2) Fire & Smoke verification E-mark certificate for vehicle
Warranty	5 years

**Optional

ORDERING INFOMATION

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-0005B-41-12V…..………….....……........P/N: 8360-5681**
  8 10/100TX IP41 rated Industrial PoE at/af Switch w/M12 connectors; -40~75C; 9.5~56VDC dual input
- **IPES-0005B-41-48V…..………….....……........P/N: 8360-5711**
  8 10/100TX IP41 rated Industrial PoE at/af Switch w/M12 connectors; -40~75C; 44~56VDC dual input
- **IPES-0005B-41-72V…..………….....……........P/N: 8360-5691**
  8 10/100TX IP41 rated Industrial PoE at/af Switch w/M12 connectors; -40~75C; 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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