

# IPES-0208T (IP67/IP54)

## 8 10/100TX PoE at/af + 2 GigaT X-coded EN50155

### Ethernet Switch

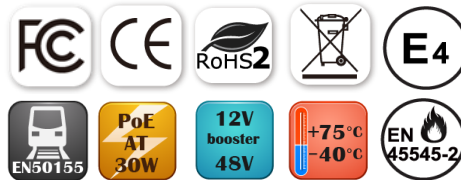
- EN50155 verification / E-mark certified
- Provides M12 connector with IP67 / IP54 rated protection
- IEEE802.3at/af up to 30W PoE output
- 12V power input boost to 54V output for IEEE 802.3at/af max. 80W
- Optional 72V/110V input steps down to 54V output for IEEE 802.3at/af max. 120W/80W
- Optional bypass protection for 1-pair GigaT ports
- Wide Operating Temperature from -40°C to 75°C



IP67 model



IP54 model



## OVERVIEW

Lantech IPES-0208T (IP67/IP54) is an 8 10/100 Base-TX + 2 GigaT X-coded w/8 PoE at/af injectors M12-connector EN50155 unmanaged Ethernet switch for IP67 or IP54 rated protection, which meets the high reliability requirements demanded by industrial rolling stock applications.

### Wide selection of input range models (12V /72V/ 110V) w/maximum PoE budget

The IPES-0208T (IP67/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-0208T is able to take 9~56VDC input and boost to 54V output for PoE feeding in vehicle use with IEEE802.3at/af standard up to 30W per PoE port. 110V input model can step down to 54V PoE at max 80W.

The IPES-0208T (IP67/IP54) is designed to meet with critical network environment with IP67/IP54 enclosure and M12 connectors for protection against dust and water. IP67 model can be immersed 1 meter under water for 30 minutes long, so it

is the best to place in the highly damp and moisture area in the train, vehicle or rail-side. Both have 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-0208T (IP67/IP54) supports an extended operating temperature range from -40°C to 75°C.

### EN50155 for rolling stock, EN45545 fire and smoke verification

With EN45545-2 Fire & Smoke, EN50155 verification and E-mark certification, the IPES-0208T (IP67/IP54) is best for railway and vehicle applications.

### Optional GigaT bypass protection

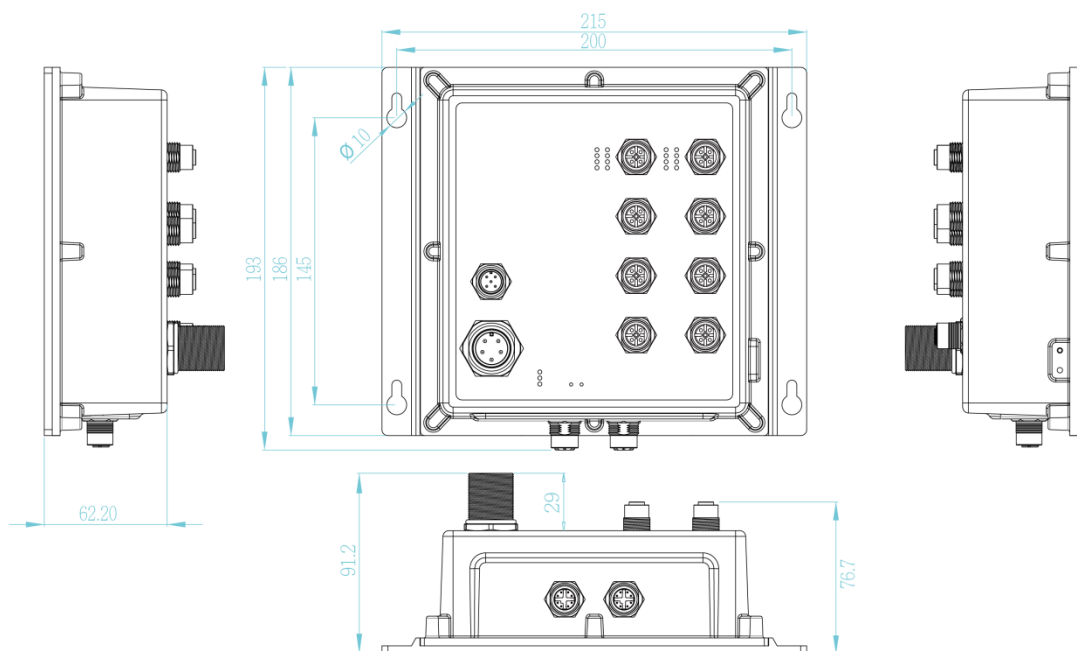
The optional 1-pair bypass relay is set to bypass the switch to the next one when power is off in order to protect the network from crashing. Lantech bypass caters to remain in bypass mode until the switch is completely booting up when power is back to avoid another network lost.

**FEATURES & BENEFITS**

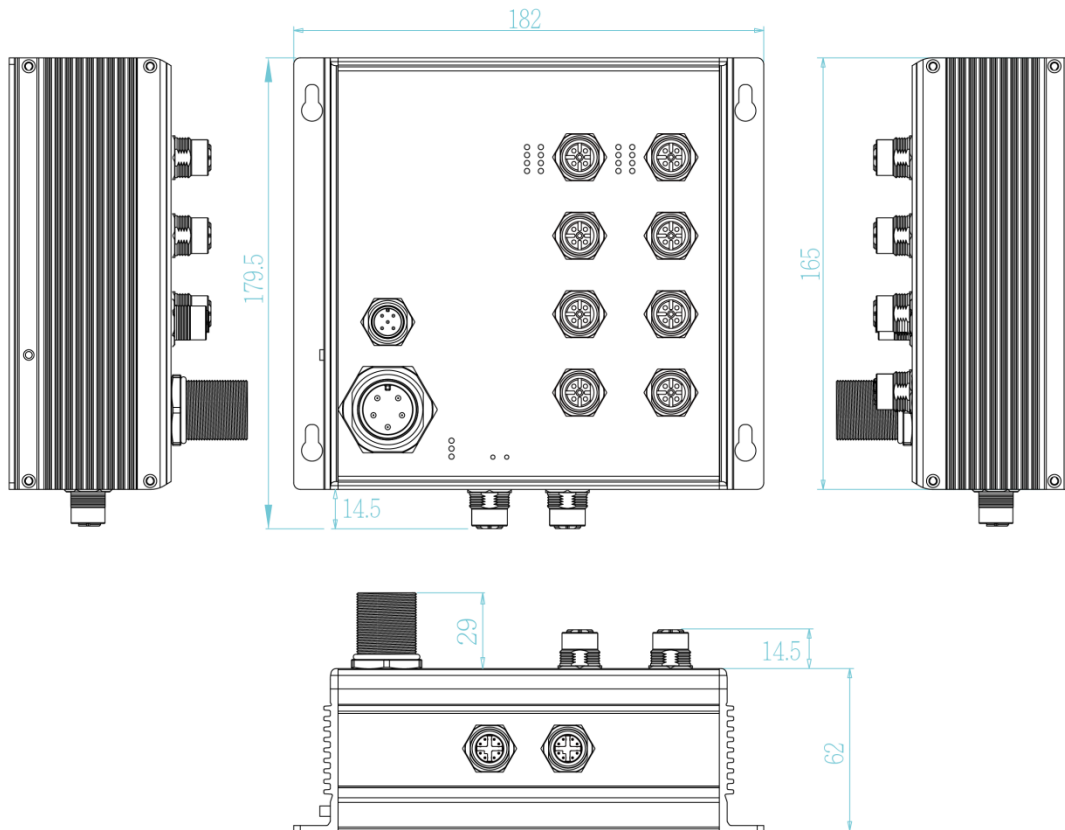
- 8 10/100TX + 2 GigaT X-coded EN50155 Unmanaged Ethernet Switch with 8 PoE at/af M12 connectors in IP67/IP54 rated protection
- Supports IEEE802.3at/af feeding power up to 30W per PoE port
- Accept dual input voltage 9~56V and can boost to 54V for PoE at/af at max 80W
- Optional 72V model can accept dual 50.4~90V power input and feed 54V for PoE at/af at max 120W
- Optional 110V model can accept dual 43~137.5V power input and feed 54V for PoE at/af at max 80W
- Back-plane (Switching Fabric): 5.6 Gbps
- 8K MAC address table
- Wide Operating Temperature (-40°C ~75°C)
- Din rail\*\* and wall mount design
- EN45545-2 Fire & Smoke, EN50155 and EN61373 shock/vibration verification
- E-mark certified
- Bypass protection\*\* - Bypass failed switch caused by power failure of switch to protect network intactness

**DIMENSIONS (unit=mm)**

IP67 model



**IP54 model**



**SPECIFICATIONS**

Hardware Specification		PoE pin assignment
IEEE Standard	IEEE802.3 10BASE-T Ethernet IEEE802.3u 100BASE-T Ethernet IEEE802.3ab 1000Base-T Ethernet IEEE802.3x Flow Control and Back Pressure IEEE802.3at/af Power over Ethernet	M12 port # 1 - # 8 support IEEE 802.3at/af End-point. Per port provides up to 30W  
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port 1,488,000pps for Gigabit Ethernet port	Power Supply
Bypass Protection**	High-speed copper switching Support 1 pair Giga-T bypass	Power Consumption
Mac Address	8K MAC address table	Power Budget
Connector	10/100T: 8 x M12, 4-pole D-coded, Female with auto MDI/MDI-X function 10/100/1000T: 2 x ports M12 8-pole X-coded with Auto MDI/MDI-X function Power connector: 1 x M23, 5-pole A-coded, Male Relay contact : 1 x M12 5-pole A-coded	Operating Humidity
LED	Per unit: Power 1 (Green), Power 2 (Green), Ethernet: Link/Activity (Green) PoE (Green)	Operating Temperature
		Storage Temperature
		Dimensions
		Weight
		Installation
		EMC

	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	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 E4 certificate
Stability Testing	EN61373 (Shock and Vibration)	Warranty	5 years

\*Pending  
\*\*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. Optional Bypass models are available with -BT model name.

- **IPES-0208T-X-67-12V.....P/N: 8360-5555**  
8 10/100TX + 2 GigaT X-coded EN50155 IP67 M12 8 PoE at/af Ethernet Switch; -40~75C; dual 9~56VDC
- **IPES-0208T-X-54-12V.....P/N: 8360-5557**  
8 10/100TX + 2 GigaT X-coded EN50155 IP54 M12 8 PoE at/af Ethernet Switch; -40~75C; dual 9~56VDC
- **IPES-0208T-X-67-72V.....P/N: 8360-5559**  
8 10/100TX + 2 GigaT X-coded EN50155 IP67 M12 8 PoE at/af Ethernet Switch; -40~75C; dual 50.4~90VDC
- **IPES-0208T-X-54-72V.....P/N: 8360-5571**  
8 10/100TX + 2 GigaT X-coded EN50155 IP54 M12 8 PoE at/af Ethernet Switch; -40~75C; dual 50.4~90VDC
- **IPES-0208T-X-67-110V.....P/N: 8360-5573**  
8 10/100TX + 2 GigaT X-coded EN50155 IP67 M12 8 PoE at/af Ethernet Switch; -40~75C; dual 43~137.5VDC
- **IPES-0208T-X-54-110V.....P/N: 8360-5574**  
8 10/100TX + 2 GigaT X-coded EN50155 IP54 M12 8 PoE at/af Ethernet Switch; -40~75C; dual 43~137.5VDC

## OPTIONAL ACCESSORIES

### M12 / M23 Connector & Cable

- **ECONM23-5P(F)70CM CABLE** M23 power cable 90 degree angle, 70cm, 5 pin, Made in Taiwan
- **ECONM23-5P(F)70CM CABLE-C** M23 power cable 90 degree angle, 70cm, 5 pin, Made in China
- **ECAB124030MJS** 4 Pin M12 RJ45 Male 3 Meters; STP Cable

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