

I(P)ES-0008C

8 FE (PoE) at/af Industrial Ethernet Unmanaged Switch; 24V/48V input models

- Support IEEE802.3at/af up to 30W per port (PoE model)
- Dual power input: 12~56VDC (IES-0008C); 9~36VDC (24V model); 45V~56VDC input (PoE 48V model)
- Galvanic isolation between power input and Ethernet power system
- Max PoE budget 240W at 48V, 80W at 24V (PoE model)
- Power-saving PoE configuration when ignition is enabled (PoE model)
- IES-0008C ignition model with 60min count-down to standby mode (24V-IGN model)
- E-marking certificate for vehicle application (24V model)



OVERVIEW

The Lantech I(P)ES-0008C is a compact Ethernet switch featuring a PoE budget of up to 240W (PoE model) and dual power input options ranging from 9-36V or 12-56VDC. It is designed for Ethernet switch systems in rail, metro, vehicle, or hardened industrial applications with a 24V input.

IES-0008C model: Dual 12/24/48V input and IPES-0008C: Dual 48V, 24V input with max PoE budget

The IES-0008C-24V accepts dual power input 9~36VDC while the IES-0008C accepts dual power input 12~56VDC. The POE model, IPES-0008C, supports the IEEE 802.3at/af standards, which can provide high power budget of up to 30W at each PoE port for PD devices like IP cameras and wireless access points etc. It accepts a power input of 9~36VDC, compliant with the IEEE 802.3at/af standards, and delivers up to 30W per PoE port, with a maximum output of 80W at 24V and 240W at 48V (with dual input). The PoE 48V model accepts power input of 45~56VDC and can provide a 48V output for PoE feeding in vehicles, with a maximum output of 240W at 48V input.

Ignition off mode with PoE off timer (IPES-0008C-IGN model) and sleep mode

The IPES-0008C supports an optional PoE feeding OFF timer dip switch (1/5/10 minutes or other intervals) when the vehicle's main key is turned off to prevent battery drain. IES-0008C Ignition model with a 60-minute countdown of standby mode to continue network operation and then into sleep mode to avoid the switch rebooting when ignition is back.

E-marking certificate, ISO 7637-2 compliant High reliability with Ethernet isolation and polarity reversal protection design and extended working temperature

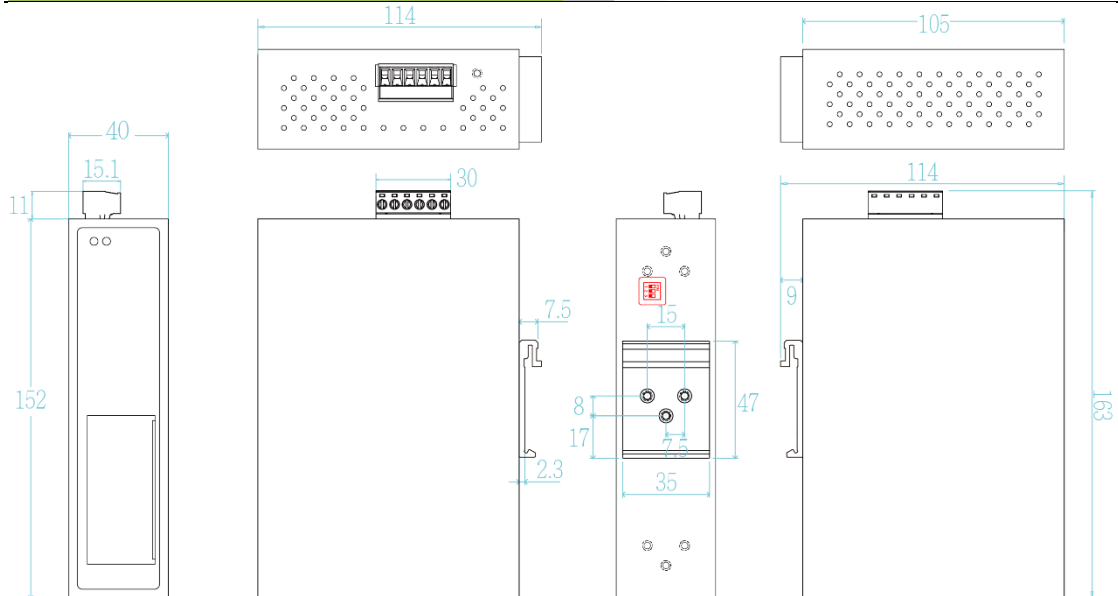
The switch is designed with dual power inputs and is capable of withstanding EMI/RFI interference in the onboard or industrial harden network. The redundant power input design integrates inrush current protection also protects against polarity reversal. Additionally, the galvanic isolation feature shields the system from power transients often present in onboard and outdoor networks. It also meets the requirements of ISO 16750-2 P5A, reducing the impact of high-frequency pulse voltage that could be incurred by motor applications. The -E model can be used in extreme environments with an operating temperature range of -40°C to 75°C. The E-marking* certificate makes it the most suitable for bus, carriage, other vehicle applications.

FEATURES & BENEFITS

- 8 10/100TX industrial switch ports (Total 8 Ports Switch)
- Embedded 8 PoE ports IEEE802.3af/at function to feed power up to 30W@54V per port for active operation (PoE model)
- IES-0008C: Dual 12~56VDC power input; Dual

- 9~36VDC power input (IES-0008C-24V)
- **IPES-0008C:** Dual 9V~36VDC power input for 24V model with ISO7637-2/pulse 5A compliance; PoE budget 80W at 24V input, dual 45V~56VDC power input for 48V model with PoE budget 240W
- Back-plane (Switching Fabric): 1.6Gbps
- IPES-0008C supports optional PoE feeding OFF timer dip (1/5/10mins or others) (24V-IGN model)
- IES-0008C ignition model with 60min count-down to standby mode
- IP30 metal housing with DIN rail and Wall-mount** design

DIMENSIONS (unit=mm)



*Note: The DIP switch in red color only appears on IGN models with PoE off timer.

SPECIFICATION

Hardware Specification		A higher PoE budget can be applied upon request. **	
Standards	IEEE802.3 10Base-T Ethernet IEEE802.3u 100Base-TX IEEE802.3x Flow Control and Back Pressure IEEE802.3at/af Power over Ethernet	PoE pin assignment (PoE model)	RJ-45 port # 1~#8 supports IEEE 802.3at/af Endpoint, Alternative A mode. Per port provides up to 30W Positive (VCC+): RJ-45 pin 1,2 Negative (VCC-): RJ-45 pin 3,6
Switch Architecture	Back-plane (Switching Fabric): 1.6Gbps	Power Consumption	3W
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port	Galvanic Isolation	Between power input and case ground Between the Ethernet port and case ground Between power input and Ethernet port
Mac Address	2K MAC address table	Case Dimension	Metal case. IP-30 40 (W) x 105 (D) x 152 (H) mm
Connectors	10/100TX: 8 x ports RJ-45 with Auto MDI/MDI-X function Power & P-Fail connector: 1 x 6-pole terminal block	Weight	TBA
Network Cable	10Base-T: 2-pair UTP/STP Cat. 3, 4, 5/ 5E/ 6 cable EIA/TIA-568 100-ohm (100m) 100Base-TX: 2-pair UTP/STP Cat. 5/ 5E/ 6 cable EIA/TIA-568 100-ohm (100m)	Installation	DIN Rail and Wall Mount** Design
LED	Per unit: Power 1 (Green), Power 2 (Green); Ethernet port: Link/Activity (Green) PoE: Active (Green)	EMI & EMS	FCC Part 15 Subpart B, 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,
Operating Humidity	5% ~ 95% (Non-condensing)	Safety	EN 62368 (LVD)
Operating Temperature	-20°C~60°C / -4°F~140°F (Standard model) -40°C~75°C / -40°F~167°F(-E model)		
Storage Temperature	-40°C~85°C / -40°F~185°F		
Power Supply	9~36VDC (24V model); 45~56VDC (48V model) 12~56VDC (non-PoE model)		
PoE Budget (PoE model)	240W for 45~56V input (48V model) (50~57VDC input is recommended for 802.3at 30W applications) 80W at 24V input		

Stability Testing	IEC 60068-2-27 (Shock), IEC 60068-2-31 (Shock), IEC 60068-2-64 (Vibration), IEC 60068-2-80 (Vibration)	MTBF	965,429 hrs (IEC62830 standards)	*Future Release **Optional
	Vehicle certificate	E24 marking (24V model)	Warranty	

ORDERING INFORMATION

- **IPES-0008C-48V.....P/N: 8351-149**
8 10/100TX w/8 PoE Mode A 802.3at/af 30W Industrial Ethernet Switch; dual 45~56VDC input; -20°C to 60°C
- **IPES-0008C-48V-E.....P/N: 8351-14901**
8 10/100TX w/8 PoE Mode A 802.3at/af 30W Industrial Ethernet Switch; dual 45~56VDC input; -40°C to 75°C
- **IPES-0008C-24V.....P/N: 8351-1491**
8 10/100TX w/8 PoE Mode A 802.3at/af 30W Industrial Ethernet Switch, dual 9V~36VDC input; compliant with ISO7637; -20°C to 60°C
- **IPES-0008C-24V-E.....P/N: 8351-14911**
8 10/100TX w/8 PoE Mode A 802.3at/af 30W Industrial Ethernet Switch, dual 9V~36VDC input, compliant with ISO7637; -40°C to 75°C
- **IPES-0008C-24V-IGN.....P/N: 8351-1492**
8 10/100TX w/8 PoE Mode A 802.3at/af 30W Industrial Ethernet Switch, dual 9V~36VDC input; compliant with ISO7637; -20°C to 60°C w/ignition
- **IPES-0008C-24V-IGN-E.....P/N: 8351-14921**
8 10/100TX w/8 PoE Mode A 802.3at/af 30W Industrial Ethernet Switch, dual 9V~36VDC input, compliant with ISO7637; -40°C to 75°C w/ignition
- **IES-0008C.....P/N: 8351-1493**
8 10/100TX Industrial Ethernet Switch, dual 12V~56VDC input; compliant with ISO7637-2; -20°C to 60°C w/Ethernet galvanic isolation
- **IES-0008C-E.....P/N: 8351-14931**
8 10/100TX Industrial Ethernet Switch, dual 12V~56VDC input, compliant with ISO7637-2; -40°C to 75°C w/Ethernet galvanic isolation
- **IES-0008C-24V.....P/N: 8351-1494**
8 10/100TX Industrial Ethernet Switch, dual 9V~36VDC input; compliant with ISO7637-2; -20°C to 60°C w/Ethernet galvanic isolation
- **IES-0008C-24V-E.....P/N: 8351-14941**
8 10/100TX Industrial Ethernet Switch, dual 9V~36VDC input, compliant with ISO7637-2; -40°C to 75°C w/Ethernet galvanic isolation
- **IES-0008C-24V-IGN.....P/N: 8351-1495**
8 10/100TX Industrial Ethernet Switch, dual 9V~36VDC input; compliant with ISO7637-2; -20°C to 60°C w/Ethernet galvanic isolation & ignition
- **IES-0008C-24V-IGN-E.....P/N: 8351-14951**
8 10/100TX Industrial Ethernet Switch, dual 9V~36VDC input, compliant with ISO7637-2; -40°C to 75°C w/Ethernet galvanic isolation & ignition

OPTIONAL ACCESSORIES

DIN Rail Power

- **NDR-480 Series** 480W Single Output Industrial Din Rail Power; 90-264VAC / 127-370VDC Input Range; Cooling by free air convection; RoHS2 ; Operating Temp. -20°C~70°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C)
- **NDR-240 Series** 240W Single Output Industrial Din Rail Power; 90-264VAC / 127-370VDC Input Range; Cooling by free air convection; RoHS2 ; Operating Temp. -20°C~70°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C)
- **NDR-120 Series** 120W Single Output Industrial Din Rail Power; 90-264VAC / 127-370VDC Input Range; Cooling by free air convection; RoHS2 ; Operating Temp. -20°C~70°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C; For 115VAC, please refer to derating curve on NDR-120 Series datasheet)
- **NDR-75 Series** 75W Single Output Industrial Din Rail Power; 90-264VAC / 127-370VDC Input Range; Cooling by free air convection; RoHS2 ; Operating Temp. -20°C~70°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C; For 115VAC, please refer to derating curve on NDR-120 Series datasheet)

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