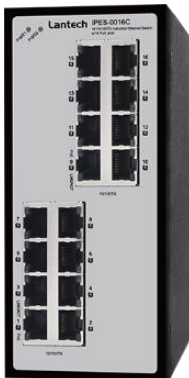


I(P)ES-0016C

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



OVERVIEW

Lantech I(P)ES-0016C is a high-performance all 16 10/100TX industrial Ethernet switch with w/8 PoE 802.3af/at ports.

Dual 48V, 24V input with max PoE budget

The IPES-0016C 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-0016C-24V accepts power input 9~36VDC with IEEE802.3at/af standard and feeds up to 30W per PoE port with a maximum 80W@24V and 240W@48V output (at dual input).

PoE 48V model accepts 45~56VDC power input and can feed 48V output for PoE feeding in the vehicle at max 240W @48V input.

Efficient PoE timer when ignition off

Efficient PoE configuration when ignition off supports optional PoE feeding OFF timer (1/5/10mins or default by 60mins) at ignition off mode to prevent car battery drain-out. (- IGN model)

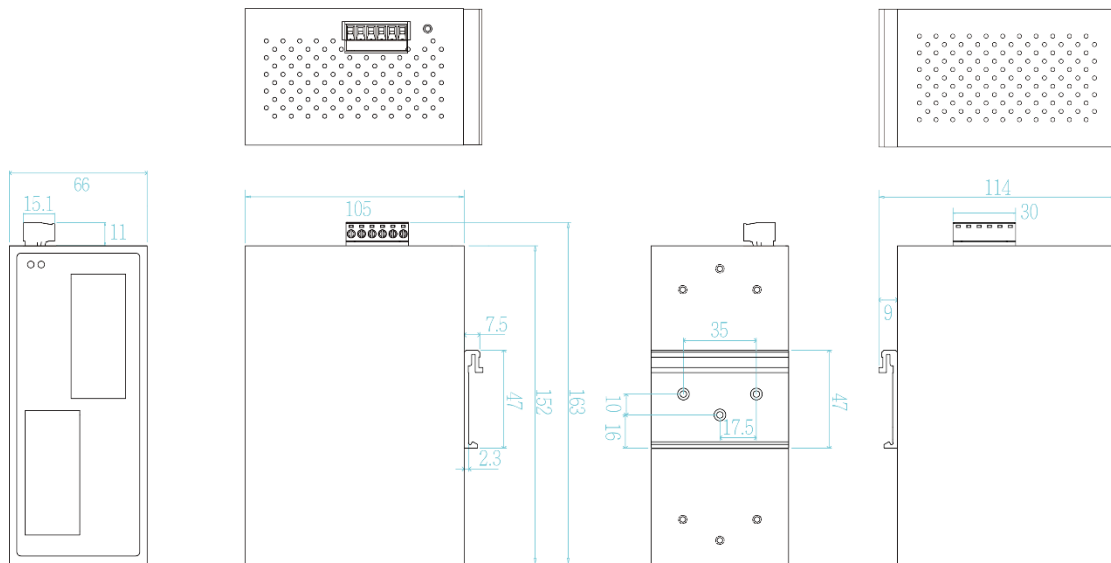
E-marking certificate, ISO 7637-2 compliant High reliability and extended working temperature

Lantech I(P)ES-0016C can reduce unstable situations caused by power line and Ethernet. It has high reliability and robustness coping with extensive EMI/RFI phenomenon, environmental vibration and shocks usually found in Automation, transportation, surveillance, Wireless backhaul, Semi-conductor factory and assembly lines.

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 as well as for industrial areas.

The 24V model is also compliant with ISO 7637-2 (pulse 5A) which protects switch from being damaged by high voltage that could be found at vehicle cranky start.

DIMENSIONS (unit=mm)

SPECIFICATION

Hardware Specification		Negative (VCC-): RJ-45 pin 3,6	
Standards	IEEE802.3 10Base-T Ethernet IEEE802.3u 100Base-TX IEEE802.3x Flow Control and Back Pressure IEEE802.3at/af Power over Ethernet	Power Consumption	4.8W (full load without PoE)
Switch Architecture	Back-plane (Switching Fabric): 3.2Gbps	Galvanic Isolation	Between power input and case ground Between the Ethernet port and case ground Between power input and Ethernet port
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port	Case Dimension	Metal case, IP-30 66 (W) x 105 (D) x 152 (H) mm
Mac Address	2K MAC address table	Weight	950g
Connectors	10/100TX: 16 x ports RJ-45 with Auto MDI/MDI-X function Power & P-Fail connector: 1 x 6-pole terminal block	Installation	DIN Rail and Wall Mount** Design
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)	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,
LED	Per unit: Power 1 (Green), Power 2 (Green); Ethernet port: Link/Activity (Green) PoE: Active (Green)	Safety	EN 62368 (LVD)
Operating Humidity	5% ~ 95% (Non-condensing)	Stability Testing	IEC 60068-2-27 (Shock), IEC 60068-2-31 (Shock), IEC 60068-2-64 (Vibration), IEC 60068-2-80 (Vibration)
Operating Temperature	-20°C~60°C / -4°F~140°F (Standard model) -40°C~75°C / -40°F~167°F(-E model)	Vehicle certificate	E24 marking (24V model)
Storage Temperature	-40°C~85°C / -40°F~185°F	MTBF	483,162 hrs (IEC62830 standards)
Power Supply	9~36VDC (24V model); 45~56VDC (48V model)	*Future Release **Optional	
PoE Budget	240W for 45~56V input (48V model) (50~57VDC input is recommended for 802.3at 30W applications) 80W at 24V input A higher PoE budget can be applied upon request. **		
PoE pin assignment	RJ-45 port # 1~#8 supports IEEE 802.3at/af End-point, Alternative A mode. Per port provides up to 30W Positive (VCC+): RJ-45 pin 1,2		

ORDERING INFORMATION

Model name -IGN as default 60min., ignition models with PoE OFF timer 1min/5min/10min have different part numbers and descriptions. (IGN1/IGN5/IGN10 mins.)

- **IPES-0016C-48V.....P/N: 8351-14961**
16 10/100TX w/16 PoE Mode A 802.3at/af 30W Industrial Ethernet Switch; dual 45~56VDC input; -20°C to 60°C
- **IPES-0016C-48V-E.....P/N: 8351-149601**
16 10/100TX w/16 PoE Mode A 802.3at/af 30W Industrial Ethernet Switch; dual 45~56VDC input; -40°C to 75°C
- **IPES-0016C-24V.....P/N: 8351-149602**
16 10/100TX w/16 PoE Mode A 802.3at/af 30W Industrial Ethernet Switch, dual 9V~36VDC input; compliant with ISO7637; -20°C to 60°C
- **IPES-0016C-24V-E.....P/N: 8351-149603**
16 10/100TX w/16 PoE Mode A 802.3at/af 30W Industrial Ethernet Switch, dual 9V~36VDC input, compliant with ISO7637; -40°C to 75°C
- **IPES-0016C-24V-IGN.....P/N: 8351-14965**
16 10/100TX w/16 PoE Mode A 802.3at/af 30W Industrial Ethernet Switch, dual 9V~36VDC input; compliant with ISO7637; -20°C to 60°C w/ignition default PoE OFF 60min.
- **IPES-0016C-24V-IGN-E.....P/N: 8351-149604**
16 10/100TX w/16 PoE Mode A 802.3at/af 30W Industrial Ethernet Switch, dual 9V~36VDC input, compliant with ISO7637; -40°C to 75°C w/ignition default PoE OFF 60min.
- **IES-0016C.....P/N: 8351-149605**
16 10/100TX Industrial Ethernet Switch, dual 12V~56VDC input; compliant with ISO7637-2; -20°C to 60°C
- **IES-0016C-E.....P/N: 8351-149606**
16 10/100TX Industrial Ethernet Switch, dual 12V~56VDC input, compliant with ISO7637-2; -40°C to 75°C
- **IES-0016C-24V.....P/N: 8351-14976**
16 10/100TX Industrial Ethernet Switch, dual 9V~36VDC input; compliant with ISO7637-2; -20°C to 60°C
- **IES-0016C-24V-E.....P/N: 8351-149607**
16 10/100TX Industrial Ethernet Switch, dual 9V~36VDC input, compliant with ISO7637-2; -40°C to 75°C
- **IES-0016C-24V-IGN.....P/N: 8351-149608**
16 10/100TX Industrial Ethernet Switch, dual 9V~36VDC input; compliant with ISO7637-2; -20°C to 60°C w/ignition
- **IES-0016C-24V-IGN-E.....P/N: 8351-149609**
16 10/100TX Industrial Ethernet Switch, dual 9V~36VDC input, compliant with ISO7637-2; -40°C to 75°C w/ignition

*For all detailed part nos. and model names, please refer to

[https://www.lantech.com.tw/global/eng/download/datasheet/P-\(P\)ES-0016C.pdf](https://www.lantech.com.tw/global/eng/download/datasheet/P-(P)ES-0016C.pdf)

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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