

# IPGS-0016

## 16 10/100/1000T PoE at/af Industrial Unmanaged Ethernet Switch

- Support IEEE802.3af/at up to 30W per port
- Dual 9V~36VDC input compliant with ISO 7637-2 (24V model)
- Dual 44~56VDC input (48V model)
- Galvanic isolation protection (power input /Ethernet port to system/case ground; power input to Ethernet port)
- Max PoE budget 100W at 24V input; 240W at 48V input
- Relay alarm output for power fail and alarm
- E-marking certificate for vehicle application (-24V model)



### OVERVIEW

Lantech IPGS-0016 is a high performance 16 10/100/1000T industrial Ethernet switch with w/16 PoE 802.3af/at ports.

#### Galvanic isolation for dual 24V/48V wide input range

The IPGS-0016 supports IEEE802.3af/at 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 IPGS-0016-24V accepts power input 9~36VDC and is compliant with ISO 7637-2\* which protects switch from being damaged by high voltage that could be found at vehicle cranky start.

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

#### E-marking certificate, High reliability and extended working temperature

Lantech IPGS-0016 provides  $\pm 2000V$  EFT and  $\pm 6000V$  ESD protection, which can reduce unstable situation 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, Wireless backhaul, Semi-conductor factory and assembly lines.

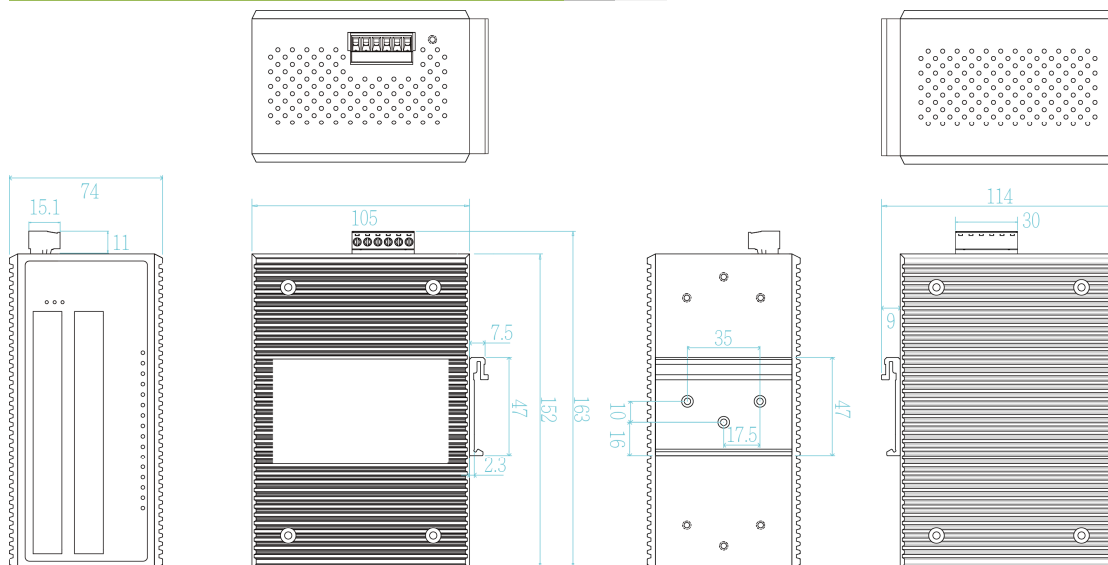
The -E model can be used in extreme environments with an operating temperature range of  $-40^{\circ}C$  to  $75^{\circ}C$ .

The E-marking certificate makes it the most suitable switch for bus, carriage, other vehicles application as well as for industrial areas.

### FEATURES & BENEFITS

- 16 10/100/1000T industrial Ethernet switch w/16 PoE 802.3af/at ports (Total 16 Ports Switch)
- PoE budget 100W at 24V input; 240W at 48V input
- Dual 9V~36VDC with ISO7637-2 compliance (24V model)
- Dual 44~56VDC input (48V model)
- Back-plane (Switching Fabric): 32Gbps
- Provides EFT protection  $\pm 2000$  VDC for power line
- Supports  $\pm 6000$  VDC Ethernet ESD protection
- Galvanic isolation between power input and system/case ground; between Ethernet port and system/case ground; between power input and Ethernet port
- E-marking certificate for vehicle application (-24V model)
- Relay alarm output for power fail and alarm
- IP30 metal housing with DIN rail and Wall-mount\*\* design

**DIMENSIONS (unit=mm)**



**SPECIFICATION**

Hardware Specification			
Standards	IEEE802.3 10Base-T Ethernet IEEE802.3u 100Base-TX IEEE802.3x Flow Control and Back Pressure IEEE802.3af/at Power over Ethernet		End-point, Alternative A mode. Per port provides up to 30W. (-14 model RJ-45 port # 1~#14 support IEEE 802.3at/af End-point, 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): 32Gbps	Power Consumption	15W exclude PoE loads
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port	Galvanic Isolation	Between power input and system/case ground Between Ethernet port and system/case ground Between power input and Ethernet port
Mac Address	16K MAC address table	Case Dimension	Metal case IP-30 74 (W) x 105 (D) x 152 (H) mm
Connectors	10/100/1000T: 16 x ports RJ-45 with Auto MDI/MDI-X function Power & P-Fail connector: 1 x 6-pole terminal block	Weight	900 g
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) 1000Base-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), P-Fail (Red); Ethernet port: Link/Activity (Green)	Relay Alarm	Provides one relay output for power fail and alarm. Alarm Relay current carry ability: 1A @ DC24V
Operating Humidity	5% ~ 95% (Non-condensing)	EMI & EMS	FCC Class A, CE EN55011, CE EN55032, CE EN55024, CE EN61000-4-2, CE EN61000-4-3, CE EN61000-4-4, CE EN61000-4-5, CE EN61000-4-6, CE EN61000-4-8, CE EN61000-6-2, CE EN61000-6-4
Operating Temperature	-20°C~60°C / -4°F~140°F (Standard model) -40°C~75°C / -40°F~167°F(-E model)	Safety	IEC/BS EN IEC 62368-1 2020/A11:2020
Storage Temperature	-40°C~85°C / -40°F~185°F	Vehicle certificate	E-Marking with E24 granted approval (-24V model) Power input range 16.8~36VDC
Power Supply	Dual 9~36VDC (24V model) Dual 44~56VDC (48V model)	MTBF	908,270 hrs (standards: IEC 62380)
PoE Budget	240W at 48V input; 100W at 24V input; 80W at 12V input (50~57VDC input is recommended for 802.3at 30W applications) Higher PoE budget can be applied upon request. **	Warranty	5 years
PoE pin assignment	RJ-45 port # 1~#16 support IEEE 802.3at/af		*Future Release **Optional

**ORDERING INFORMATION**

- **IPGS-0016-24V.....P/N: 8351-126**  
16 10/100/1000T w/16 PoE at/af up to 30W Industrial Ethernet Switch, dual 9V~36VDC input; compliant with ISO7637-2; -20°C to 60°C
- **IPGS-0016-14-24V.....P/N: 8351-1261**  
16 10/100/1000T w/14 PoE at/af up to 30W Industrial Ethernet Switch, dual 9V~36VDC input; compliant with ISO7637-2; -20°C to 60°C

- **IPGS-0016-48V.....P/N: 8351-1262**  
16 10/100/1000T w/16 PoE at/af up to 30W Industrial Ethernet Switch, dual 44V~56VDC input; -20°C to 60°C
- **IPGS-0016-14-48V.....P/N: 8351-1263**  
16 10/100/1000T w/14 PoE at/af up to 30W Industrial Ethernet Switch, dual 44V~56VDC input; -20°C to 60°C
- **IPGS-0016-24V-E.....P/N: 8351-127**  
16 10/100/1000T w/16 PoE at/af up to 30W Industrial Ethernet Switch, dual 9V~36VDC input, compliant with ISO7637-2; -40°C to 75°C
- **IPGS-0016-14-24V-E.....P/N: 8351-1271**  
16 10/100/1000T w/14 PoE at/af up to 30W Industrial Ethernet Switch, dual 9V~36VDC input, compliant with ISO7637-2; -40°C to 75°C
- **IPGS-0016-48V-E.....P/N: 8351-1272**  
16 10/100/1000T w/16 PoE at/af up to 30W Industrial Ethernet Switch, dual 44V~56VDC input; -40°C to 75°C
- **IPGS-0016-14-48V-E.....P/N: 8351-1273**  
16 10/100/1000T w/14 PoE at/af up to 30W Industrial Ethernet Switch, dual 44V~56VDC input; -40°C to 75°C

All part no. with WALL are models with wall mount kit instead of DIN Rail

## 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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