

# IDS-108HP PoE (90W) Switches

## 8-port Unmanaged Gigabit Switches



- 8-port Unmanaged Gigabit Switches
- 8 PoE ports supply up to 90 Watts PSE power, IEEE 802.3bt compliant
- QoS (Quality of Service) prioritized messages
- Ruggedized design for harsh environments
- Remotely detect and reboot unresponsive equipment

Perle IDS-108HP PoE Switches are designed for easy deployment in challenging industrial environments where extensive temperature tolerance, resistance to vibrations and shocks, and compliance with stringent safety standards are required. This low-cost, easy-to-use device combines essential industrial Ethernet networking functionality, real-time deterministic network operation, and advanced rugged performance. While it requires no configuration and will operate instantly as soon as you power it up, the built-in QoS (Quality of Service) support for EtherNet/IP and PROFINET allows for traffic prioritization and effective management of resources.

This versatile switch features full/half-duplex auto-negotiation and auto MDI/MDIX operation, allowing for convenient connection of various network devices. In addition, these PoE Switches are classified as Power Sourcing Equipment (PSE). While using standard UTP cables that carry Ethernet data, the IDS-110HP has eight ports that provide up to 90 watts of power to Powered Devices (PDs) such as outdoor PTZ dome cameras, wireless access points, and way-side communication devices. Learn more **about PoE**.

A built-in watchdog feature enables the IDS-108HP switch to operate as an intelligent device to prevent packet loss from powered devices (PDs) in the network. If a PD becomes unresponsive, the IDS-108HP will reboot the device without interrupting other PDs connected to the switch.

The IDS-108HP also provides a relay output contact that triggers an immediate alarm when redundant power fails. Each component within these industrial-grade switches is specialized with overbuilt hardware and chips, ensuring their suitability for outdoor deployment. Their unwavering strength and resilience enable them to provide robust networking solutions, catering to the need for Fast Ethernet and Gigabit networks. They provide the necessary reliability and durability for industrial settings where dependability and high-speed connectivity are crucial. Don't trust your critical communications to commercial switch products. Perle Industrial Ethernet switches give you the proven assurance that your system will keep running for years.

## High reliability rugged design for harsh environments

- Operates in -40 to 75°C
- Compact corrosion-resistant IP30 or IP40 metal case will fit environments with limited space.
- UL 61010 (formerly UL508) Industrial Control Equipment Safety certified
- Industrial Fanless Design - no moving parts
- Dual power input. Connect to separate power sources for redundancy.
  - Reverse polarity protection
  - Overload current protection
- Certified to handle surges, vibration, and shock conditions
- 6Kv surge protection
- NEMA TS2 approved for Traffic Control Applications
- EN 50121-4 certified for railway deployments

## Real-time Ethernet performance

- QoS (Quality of Service) prioritized messages for PROFINET and EtherNet/IP
  - tag packets, prioritize applications, and reserve bandwidth for critical tasks
- Fast wire speed, store and forward switching, non-blocking architecture
- Auto-sensing for speed and duplex
- Auto-mdi/mdix-crossover works with straight and crossover cables
- IEEE 802.3x flow control


## PoE

- Up to 90 Watts per port driving up to eight class 8 (IEEE 802.3bt Type 4) PDs
- Total power budget up to 270W
- PoE Watchdog - data streaming monitoring for connected PD


## Energy Efficient Ethernet (EEE)

As per 802.3az, this provides power savings during idle network activity.

## Hardware & Technical Specifications: IDS-108HP Industrial Gigabit Switches

Interfaces	
RJ45	<ul style="list-style-type: none"> <li>• 8 x 10/100/1000BASE-TX PoE up to 100 meters (328 ft)</li> <li>• Auto-negotiation</li> <li>• Auto-MDI/MDIX-crossover for use with either crossover over straight-through cable types</li> <li>• Ethernet isolation 1500 V</li> </ul>
Alarm Contact	One relay output with current 0.5A @ 48V at Normal Open or Normal Close
DIP Switches	
Power	
Dual Power Input	46-57VDC (Terminal Block 8 pins)
Power Consumption	9.72W (without PoE)
Maximum Current Consumption @24 vDC	0.20A @ 48VDC (without PoE)
Power Connector	8-Pin Removable Terminal Block
Overload Current Protection	10A fuse provides overload current protection
Reverse polarity protection	The positive and negative inputs can be reversed providing safe and simple power connectivity.
PoE Power Output	<ul style="list-style-type: none"> <li>• Up to 90W/port</li> <li>• Power Budget: 270W</li> <li>• 46-57VDC for IEEE 802.3af type 1, ≤15.4W PD devices.</li> <li>• 52-57VDC for IEEE 802.3at/bt type 2/3, 30W, 60W PD devices.</li> <li>• 54-57VDC for IEEE 802.3bt, type 4, 90W PD devices</li> </ul>

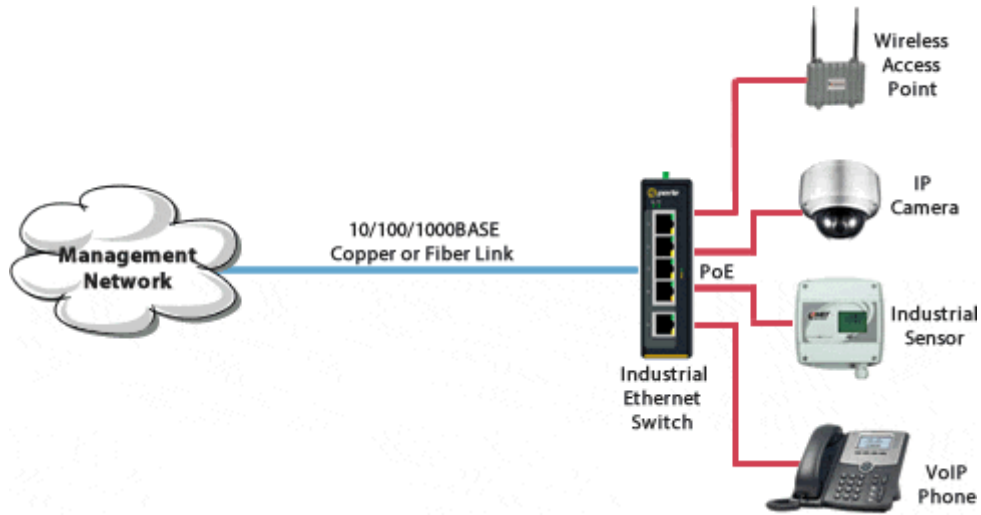
<b>Switch Properties</b>	
<b>Standards</b>	<ul style="list-style-type: none"> <li>• IEEE 802.3af/at/bt Power over Ethernet</li> <li>• IEEE 802.3 10BASE-T</li> <li>• IEEE 802.3u 100BASE-TX/FX</li> <li>• IEEE 802.3az Energy Efficient Ethernet</li> <li>• IEEE 802.1p Quality of Service (QoS)</li> <li>• IEEE 802.3ab 1000BASE-T</li> </ul>
<b>Processing Type</b>	<ul style="list-style-type: none"> <li>• Store-and-Forward</li> <li>• Auto Negotiation</li> <li>• Half-duplex back-pressure and IEEE</li> <li>• Auto MDI/MDIX</li> </ul>
<b>MAC Address Table Size</b>	4K MAC
<b>Packet Buffer Memory</b>	1.5 Mbit
<b>Jumbo Frame Size</b>	9216 bytes
<b>Forward/Filtering Rate</b>	<ul style="list-style-type: none"> <li>• 14,880pps for 10Mbps</li> <li>• 148,810pps for 100Mbps</li> <li>• 1,488,100pps for 1000Mbps</li> </ul>
<b>Indicators</b>	
<b>Power LED 1</b>	This LED is green when power is applied
<b>Power LED 2</b>	This LED is green when power is applied
<b>Fault LED</b>	This LED is red when a fault is detected
<b>RJ45 / SFP Ethernet LED</b>	These LED is solid green for established link and blinks green when activity is detected (per port)
<b>Environmental Specifications</b>	
<b>Operating Temperature Ranges</b>	<ul style="list-style-type: none"> <li>• IDS-108HP: -10°C to 60°C (14F to 140°F)</li> <li>• IDS-108HP-XT: -40°C to 75°C (-40F to 167°F)</li> </ul>
<b>Storage Temperature Range</b>	-40°C to 85°C (-40°F to 185°F)

Operating Humidity Range	5% to 90% non-condensing
Storage Humidity Range	5% to 95% non-condensing
Operating Altitude	Up to 3,048 meters (10,000 feet)
Chassis	Metal with an IP30 or IP40 (for XT) ingress protection rating
Din Rail Mountable	<p>DIN Rail attachment included. Mounts to standard 35 mm DIN rail in accordance with DIN EN 60175.</p> 
Maximum Heat Output	33.17 BTU/Hr (without PoE)
MTBF	<p>4754397 hours</p> <p><i>Calculation model based on MIL-HDBK-217-FN2 @ 25°C</i></p>
<b>Product Weight and Dimensions</b>	
Weight	556g / 1.23lbs
Dimensions	45 x 125 x 145 mm / 1.77 x 4.92 x 5.71 Inch (W x D x H)
<b>Packaging</b>	
Shipping Weight	737g / 1.62lbs
Shipping Dimensions	235 x 185 x 65 mm / 9.25 x 7.28 x 2.56 Inch (W X D X H)
Contents Shipped	<ul style="list-style-type: none"> <li>• Industrial Ethernet Switch with DIN Rail attachment</li> <li>• Terminal block</li> <li>• QR Code for online manuals</li> </ul>
<b>Standards and Certifications</b>	
Safety	UL 61010

EMC Emissions	<ul style="list-style-type: none"> <li>• FCC Part 15 Class A</li> <li>• VCCI Class A</li> <li>• EN 61000-6-4</li> <li>• ICES-003</li> <li>• EN 55032</li> </ul>
EMC Immunity	<ul style="list-style-type: none"> <li>• EN 61000-6-2</li> <li>• EN 61000-4-2 (ESD)</li> <li>• EEN 61000-4-3 (Radiated RFI)</li> <li>• EN 61000-4-4 (Burst)</li> <li>• EN 61000-4-5 (Surge)</li> <li>• EN 61000-4-6 (Induced RFI)</li> <li>• EN 61000-4-8 (Magnetic field)</li> </ul>
Industrial	EN 50121-4
Environmental Test Compliance	<ul style="list-style-type: none"> <li>• IEC 60068-2-6 Fc (Vibration)</li> <li>• IEC 60068-2-27 Ea (Shock)</li> </ul>
Environmental	<b>Reach, RoHS and WEEE Compliant</b>
Other	<ul style="list-style-type: none"> <li>• ECCN: 5A991</li> <li>• HTSUS Number: 8517.62.0020</li> <li>• 5 year Warranty</li> </ul>

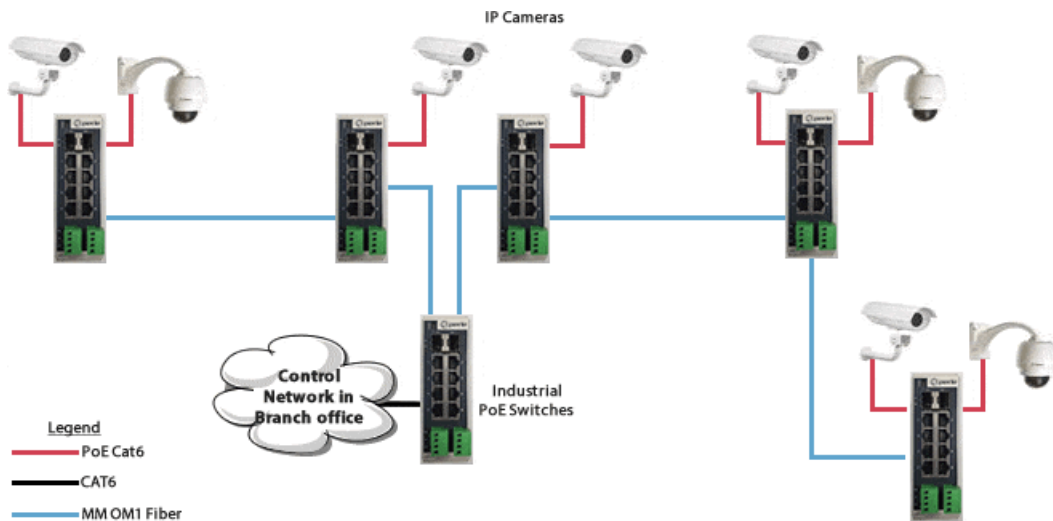
## Application Diagrams

### IDS-108HP Industrial Switch Power over Ethernet (PoE) Diagram

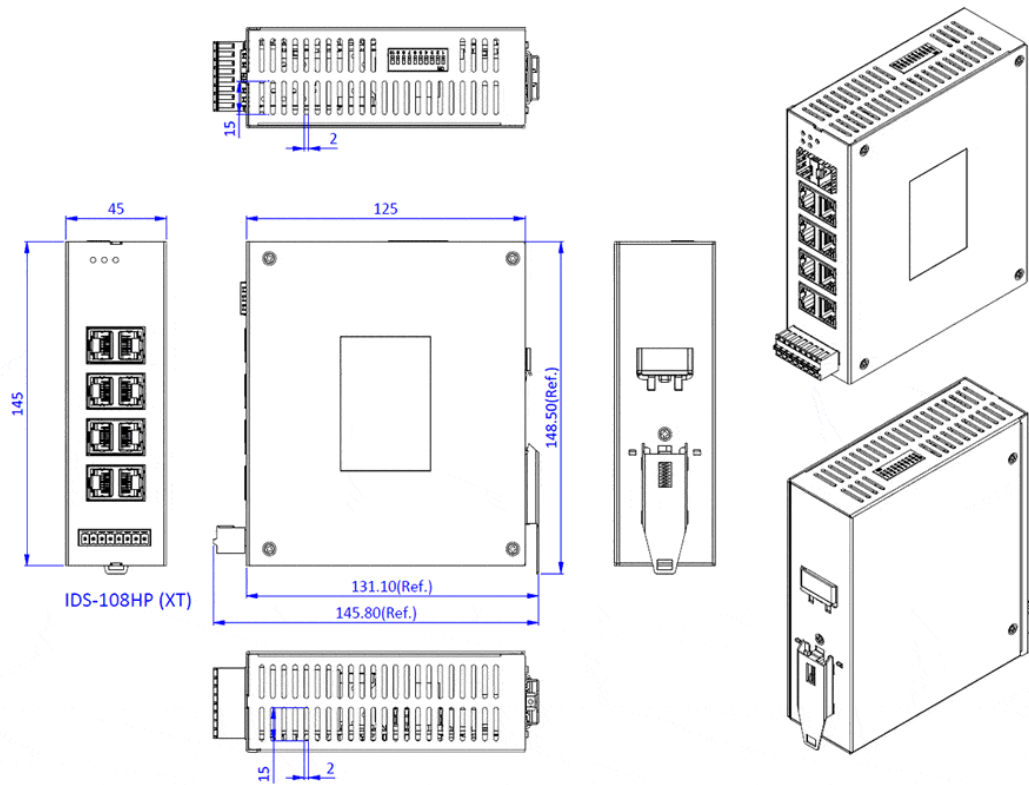


### Daisy Chain Application

IDS-108HP Switches can connect to neighboring switches via uplink ports. Each IDS-108HP provides connectivity to the fiber link and power IP cameras and Wi-Fi access points at each location along the daisy chain.



## IDS-108HP PoE (90W) Switches - Mechanical Drawing



## Product List



IDS-108HP Industrial PoE Switch with 8-ports: 8 x 10/100/1000BASE-T RJ45 ports compliant to 90W Hi-PoE IEEE 802.3bt, 1 x relay, -10°C to 60°C (-14°F to 140°F) operating temperature, Terminal Block power connector

### Power Cord & Part Number(s)

None

07017830





IDS-108HP-XT Industrial PoE Switch with 8-ports: 8 x 10/100/1000BASE-T RJ45 ports compliant to 90W Hi-PoE IEEE 802.3bt, 1 x relay, -40°C to 75°C (-40°F to 167°F) operating temperature, Terminal Block power connector

**Power Cord & Part Number(s)**

None

07017860

**Related Accessories**



Rack Mount Kit RM4U - 4U Rack mount for mounting DIN Rail products to a 19 inch rack.

**Model**

Rack Mount Kit RM4U

**Part Number**

07010300



TRIO-PS/1AC/48DC/5 DIN-Rail Power Supply: 48 VDC, 240 Watt with universal 85 to 264 VAC, 30 to 56V DC output range adjustable, -25 to 70°C extended operating temperature.

**Model**

TRIO-PS/1AC/48DC/5 Power Supply

**Part Number**

28664918



TRIO-PS/1AC/48DC/10 Power Supply - DIN-Rail 48 VDC , 480 Watt power supply with universal 85 to 264 VAC, 30 to 56V DC output range adjustable, -25 to 70°C extended operating temperature

**Model**

TRIO-PS/1AC/48DC/10 Power Supply

**Part Number**

28665018



UNO-PS/1AC/24DC/150W Power Supply - DIN-Rail 24 VDC , 150 Watt power supply with universal 85 to 264 VAC, -25 to 70°C extended operating temperature

**Model**

UNO-PS/1AC/24DC/150W Power Supply

**Part Number****29043768**