IDS-114HP PoE (90W) Switches
10-port Unmanaged Gigabit Switches

- 2 x SFP slots supporting 100/1000Mbps Fiber
- 8 x 10/100/1000 RJ45 Ethernet Ports
- 4 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-114HP 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. The two SFP fiber ports enable flexible network configurations using **SFP transceivers supplied by Perle**, Cisco, or other manufacturers of MSA-compliant SFPs.

In addition, these PoE Switches are classified as Power Sourcing Equipment (PSE). While using standard UTP cables that carry Ethernet data, the IDS-114HP has four 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-114HP 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-114HP will reboot the device without interrupting other PDs connected to the switch.

The IDS-114HP 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-114HP Industrial Gigabit Switches

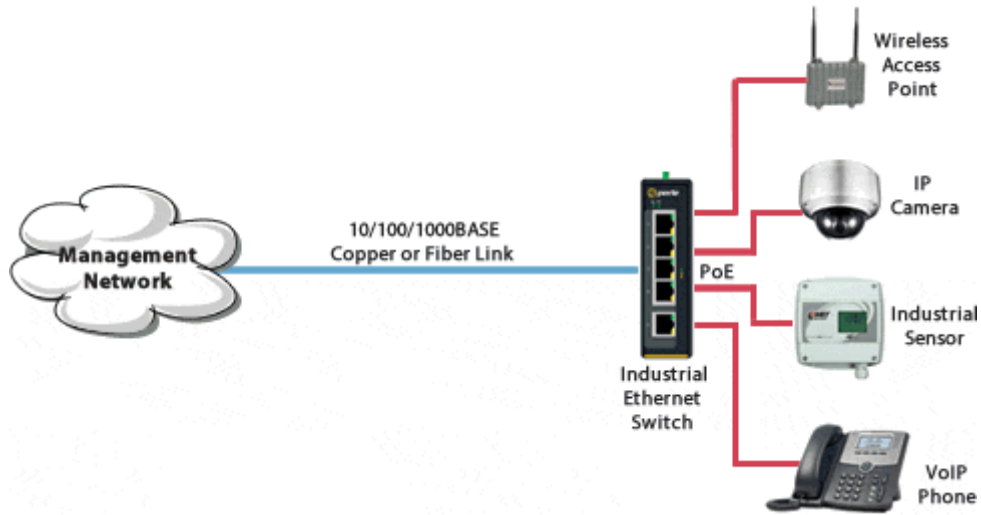| Interfaces	
RJ45	4 x 10/100/1000BASE-TX PoE up to 100 meters (328 ft) + 4 x 10/100/1000BASE-TX up to 100 meters (328 ft) + 2-port 100/1000BASE SFP - Auto-negotiation - Auto-MDI/MDIX-crossover for use with either crossover over straight-through cable types - Ethernet isolation 1500 V
Small Form Factor Pluggable (SFP) slot(s)	2 empty SFP slot models for 100/1000Base-X SFP modules supplied by Perle, Cisco or other manufacturers of MSA compliant SFPs
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	- Up to 90W/port - Power Budget: 270W 46-57VDC for IEEE 802.3af type 1, ≤15.4W PD devices. 52-57VDC for IEEE 802.3at/bt type 2/3, 30W, 60W PD devices. 54-57VDC for IEEE 802.3bt, type 4, 90W PD devices
Switch Properties	
Standards	- IEEE 802.3af/at/bt Power over Ethernet - IEEE 802.3 10BASE-T - IEEE 802.3u 100BASE-TX/FX - IEEE 802.3az Energy Efficient Ethernet - IEEE 802.1p Quality of Service (QoS) - IEEE 802.3ab 1000BASE-T - IEEE 802.3z 1000BASE-SX/1000BASE-LX
Processing Type	- Store-and-Forward - Auto Negotiation - Half-duplex back-pressure and IEEE - Auto MDI/MDIX
MAC Address Table Size	4K MAC
Packet Buffer Memory	1.5 Mbit
Jumbo Frame Size	9216 bytes
Forward/Filtering Rate	14,880pps for 10Mbps 148,810pps for 100Mbps 1,488,100pps for 1000Mbps
Indicators	
Power LED 1	This LED is green when power is applied
Power LED 2	This LED is green when power is applied
Fault LED	This LED is red when a fault is detected
RJ45 / SFP Ethernet LED	These LED is solid green for established link and bllinks green when activity is detected (per port)

Environmental Specifications	
Operating Temperature Ranges	• IDS-114HP: -10°C to 60°C (14°F to 140°F) • IDS-114HP-XT: -40°C to 75°C (-40°F to 167°F)
Storage Temperature Range	-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 ingress protection rating
Din Rail Mountable	DIN Rail attachment included. Mounts to standard 35 mm DIN rail in accordance with DIN EN 60175.
Maximum Heat Output	33.17 BTU/Hr (without PoE)
MTBF	5184093 hours *Calculation model based on MIL-HDBK-217-FN2 @ 25°C*
Product Weight and Dimensions	
Weight	578g / 1.27lbs
Dimensions	45 x 125 x 145 mm / 1.77 x 4.92 x 5.71 Inch (W x D x H)
Packaging	
Shipping Weight	759g / 1.76lbs
Shipping Dimensions	235 x 185 x 65 mm / 9.25 x 7.28 x 2.56 Inch (W X D X H)

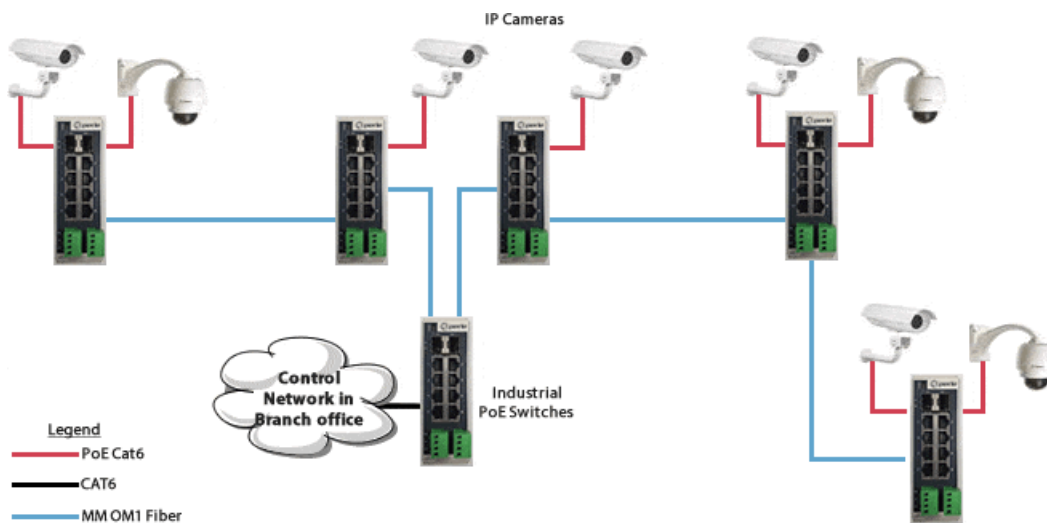| Contents Shipped	- Industrial Ethernet Switch with DIN Rail attachment - Terminal block - QR Code for online manuals
Standards and Certifications	
Safety	UL 61010
EMC Emissions	- FCC Part 15 Class A - VCCI Class A - EN 61000-6-4 - ICES-003 - EN 55032
EMC Immunity	- EN 61000-6-2 - EN 61000-4-2 (ESD) - EEN 61000-4-3 (Radiated RFI) - EN 61000-4-4 (Burst) - EN 61000-4-5 (Surge) - EN 61000-4-6 (Induced RFI) - EN 61000-4-8 (Magnetic field)
Industrial	EN 50121-4
Environmental Test Compliance	- IEC 60068-2-6 Fc (Vibration) - IEC 60068-2-27 Ea (Shock)
Environmental	**Reach, RoHS and WEEE Compliant**
Other	- ECCN: 5A991 - HTSUS Number: 8517.62.0020 5 years Warranty

Application Diagrams

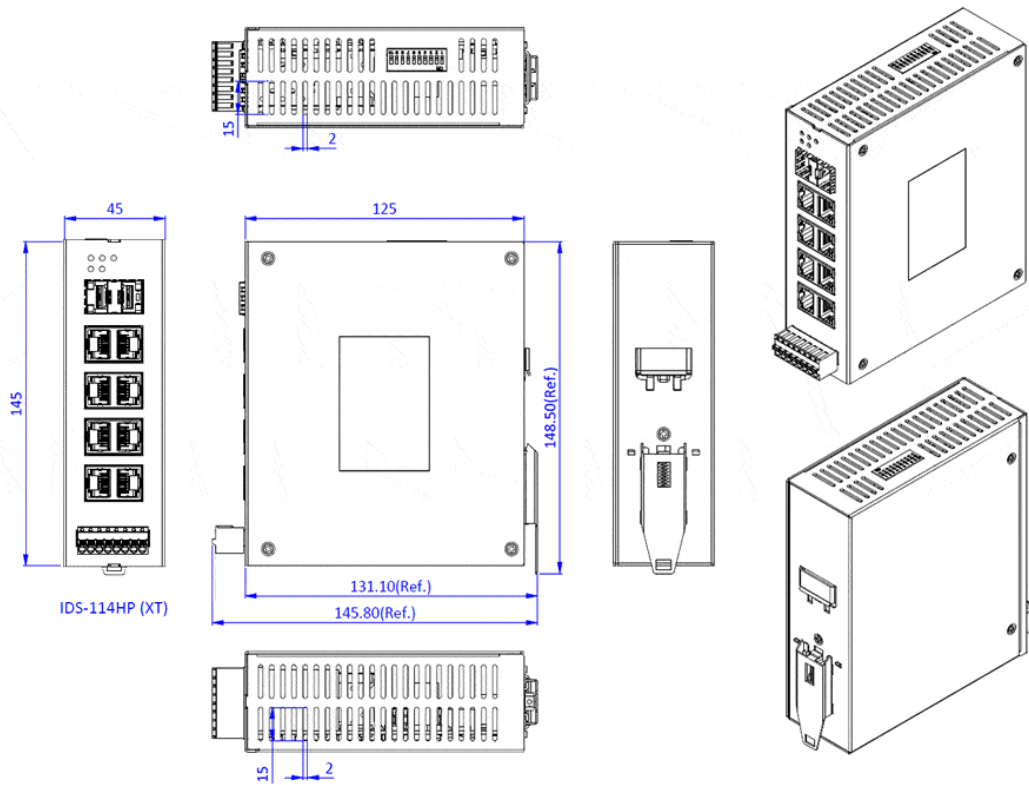### IDS-114HP Industrial Switch Power over Ethernet (PoE) Diagram

Daisy Chain Application

IDS-114HP Switches can connect to neighboring switches via uplink ports. Each IDS-114HP provides connectivity to the fiber link and power IP cameras and Wi-Fi access points at each location along the daisy chain.

IDS-114HP PoE (90W) Switches - Mechanical Drawing

IDS-114HP (XT)

Product List

IDS-114HP Industrial PoE Switch with 10-ports: 4 x 10/100/1000BASE-T RJ45 ports compliant to 90W Hi-PoE IEEE 802.3bt, 4 x 10/100/1000BASE-TX RJ45 ports, 2 x 100/1000BASE SFP slots, 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

07017850

IDS-114HP-XT Industrial PoE Switch with 10-ports: 4 x 10/100/1000BASE-T RJ45 ports compliant to 90W Hi-PoE IEEE 802.3bt, 4 x 10/100/1000BASE-TX RJ45 ports, 2 x 100/1000BASE SFP slots, 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
07017880

Related Accessories

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

Model   **Part Number**
Rack Mount Kit RM4U   **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   **Part Number**
TRIO-PS/1AC/48DC/5 Power Supply   **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   **Part Number**
TRIO-PS/1AC/48DC/10 Power Supply   **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