## 8-Port Industrial Ethernet Switches | IDS-106FE

perle.com/products/switches/ids-106fe-8-port-unmanaged-industrial-ethernet-switch.shtml

## IDS-106FE Industrial Ethernet Switches

## 8-port Compact DIN Rail Switches

- $6 \times$ RJ45 ports with $10 / 100 \mathrm{Mbps}$ on all ports
- $2 \times$ SFP slots for 100 Base-X SFP modules supplied by Perle, Cisco, or other MSA compliant manufacturers
- Redundant dual power input 12/24/48 VDC
- Reverse polarity protection
- Fan-less design with no moving parts
- -40 to 75C industrial operating temperature support
- QoS (Quality of Service) prioritized messages

With a combination of six Fast Ethernet copper ports, and two SFP fiber ports for long
 distance connectivity, Perle IDS-106FE Industrial Ethernet Switches are designed for easy deployment in industrial environments with harsh operating conditions and limited space. Designed to stand up to extreme temperatures, surges, vibrations, and shocks found in industrial automation, infrastructure, transportation, security, oil and gas, and mining the IDS-106FE Switches are economical easy-to-use devices, that provide essential industrial Ethernet networking functionality.

These unmanaged switches support 9 to 55VDC redundant power input and provide a relay alarm for power failure. The full/half-duplex auto-negotiation and auto MDI/MDIX operation simplifies installation and setup for convenient connection of a variety of network devices. And, QoS support allows for traffic prioritization and effective management of resources.

For automation and industrial control systems using EtherNet/IP, these rugged, DIN rail mountable switches with metal housing provides security and easy installation (mounting kit is included).

Hardware \& Technical Specifications: IDS-106FE Industrial Ethernet Switches

## Interfaces

|  | $6 \times$ RJ45 ports for 10/100Base-TX up to 100 meters $(328 \mathrm{ft})$ |
| :--- | :--- |
| RJ45 | Auto-negotiation <br> Auto-MDI/MDIX-crossover for use with either crossover over <br> straight-through cable types |
| Ethernet isolation 1500 V |  |


| Small Form Factor <br> Pluggable (SFP) <br> slot(s) | 2 empty SFP slot models for 100/1000Base-X SFP modules <br> supplied by Perle, Cisco or other manufacturers of MSA compliant <br> SFPs |
| :--- | :--- |
| Alarm Contact | One relay output with current 0.5A@30V |
| Power |  |
| Dual Power Input | $12 / 24 / 48 \mathrm{VDC}$ (9-55VDC) |
| Power Consumption | 3.40 W max |
| Maximum Current <br> Consumption @ <br> 24 VDC | 0.06 A @ 24VDC |
| Power Connector | 7-Pin Removable Terminal Block |
| Overload Current <br> Protection | 2A fuse provides overload current protection |
| Reverse Polarity <br> Protection | The positive and negative inputs can be reversed providing safe <br> and simple power connectivity. |
| Switch Properties |  |

IEEE 802.3 10BASE-T

Standards
IEEE 802.3u 100BASE-TX/FX
IEEE 802.3az Energy Efficient Ethernet
IEEE 802.1p Quality of Service (QoS)
Store-and-Forward
Auto Negotiation
Processing Type Half-duplex back-pressure and IEEE
802.3x full-duplex flow control

Auto MDI/MDIX
MAC Address Table 2K
Size

| Packet Buffer <br> Memory | 768 Kbps |
| :--- | :--- |
| Jumbo Frame Size | 2048 bytes |


| Forward/Filtering <br> Rate | $14,880 \mathrm{pps}$ for 10 Mbps <br> 148,810pps for 100 Mbps |
| :--- | :--- |
| 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 | These LED is solid green for established link and bllinks green <br> when activity is detected (per port) |

## Environmental Specifications

| Operating Temperature | IDS-106FE: -10 to $60^{\circ} \mathrm{C}\left(14\right.$ to $\left.140^{\circ} \mathrm{F}\right)$ |
| :---: | :---: |
|  |  |
| Ranges | IDS-106FE-XT: -40 to $75^{\circ} \mathrm{C}\left(-40\right.$ to $\left.167^{\circ} \mathrm{F}\right)$ |
| Storage | -40 to $85^{\circ} \mathrm{C}\left(-40\right.$ to $\left.185^{\circ} \mathrm{F}\right)$ |
| Temperature Range |  |
| Operating Humidity | 5\% to 90\% non-condensing |
| Range |  |
| Storage Humidity | 5\% to 95\% non-condensing |
| Range |  |
| Operating Altitude | Up to 3,048 meters (10,000 feet) |
| Chassis | Metal with an IP40 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 | 11.594 BTU/Hr |
| MTBF | 8481986 hours |
|  | MTBF Calculation model based on MIL-HDBK-217-FN2 @ $25^{\circ} \mathrm{C}$ |
| Product Weight and Dimensions |  |
| Weight | $0.336 \mathrm{Kg}, 0.74 \mathrm{lbs}$ |
| Dimensions | $45 \times 75 \times 100 \mathrm{~mm}(\mathrm{~W} \times \mathrm{D} \times \mathrm{H})$ |
|  | (1.77"x2.95"x3.94") |


| Packaging |  |
| :--- | :--- |
| Shipping Weight | $336 \mathrm{~g}(0.74 \mathrm{lbs})$ |
| Shipping <br> Dimensions | $45 \times 75 \times 100 \mathrm{~mm}, 1.77$ " $\times 2.95$ " $\times 3.94$ " $(\mathrm{W} \times \mathrm{D} \times \mathrm{H})$ |
|  | Industrial Ethernet Switch with DIN Rail attachment |
| Contents Shipped | Terminal block |
|  | Installation guide |
| Standards and Certifications |  |
| Safety | UL 61010 |
|  | FCC Part 15 Class A |
|  | VCCI Class A |
| EMC Emissions | ICES-003 |
|  | EN 55032 |


|  | EN 61000-6-2 |
| :--- | :--- |
|  | EN 61000-4-2 (ESD) |
| ENC Immunity | 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 | Reach, RoHS and WEEE Compliant |
|  | ECCN: 5A991 |
| Other | HTSUS Number: 8517.62.0020 |
|  | 5 year warranty |

IDS-106FE Industrial Ethernet Switches


| Product Image | Description | Power Cord | Product Number |
| :---: | :---: | :---: | :---: |
| T | IDS-106FE-2SFP Industrial Switch with 8-ports: 6 x 10/100Mbps RJ45 Ethernet ports and $2 \times 100 \mathrm{Mbps}$ SFP slots (empty). -10 to 60C operating temperature. | None | 07017480 |
|  | IDS-106FE-2SFP-XT Industrial Switch with 8-ports: 6 x 10/100Mbps RJ45 Ethernet ports and $2 \times 100 \mathrm{Mbps}$ SFP slots (empty). -40 to 75 C operating temperature. | None | 07017500 |

