IDS-105FE & IDS-104FE Series Ethernet Switch
# Installation Guide

1 Introduction

This quick start guide describes how to install and use the Industrial Ethernet Switch / Media Converter. Capable of operating at temperature extremes of -10˚C to +60˚C, this is the Switch / Media Converter of choice for harsh environments constrained by space.

2 Unpacking

Open the carton and unpack the items. Your package should include:

➢ IDS-105FE / IDS104FE Ethernet switch
➢ Quick install guide
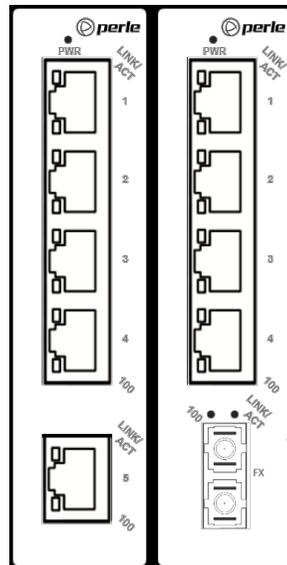
3 Port Status LEDs

LED	State	Indication
10/100TX or 100FX/BX		
LINK/ACT	Steady	Network connection established
	Flashing	Transmitting or receiving data
100	Steady	Transfer at 100Mbps
	Off	Transfer at 10Mbps

4 Connecting Power
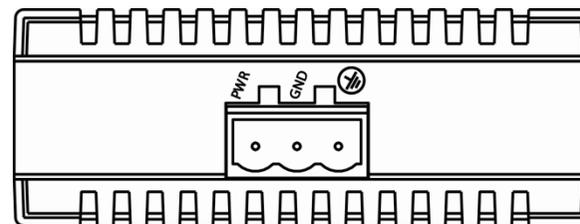
Terminal Block	
PWR	Power input
GND	Power ground
⏚	Earth ground

CAUTION: This equipment is designed to permit the connection of the earthed conductor of the DC supply circuit to the earthing conductor at the equipment.

For power connection, the following conditions must be met:

➢ This equipment shall be connected to directly to the DC supply system earthing electrode conductor or to a bonding jumper from an earthing terminal bar or bus to which the DC supply system earthing electrode conductor is connected.

➢ This equipment shall be located in the same immediate area (such as, adjacent cabinets) as any other equipment that has a connection between the earthed conductor of the same DC supply circuit and the earthing conductor, and also the point of earthing of the DC system. The DC system shall not be earthed elsewhere.

➢ The DC supply source is to be located within the same premises as the equipment.

➢ Switching or disconnecting devices shall not be in the earthed circuit conductor between the DC source and the point of connection of the earthing electrode conductor.

5 Data Connection

10/100Base-TX Connections

The following lists the pinouts of 10/100Base-TX ports:

Pin	Regular Port	Uplink Port
1	Input Receive Data +	Output Transmit Data +
2	Input Receive Data -	Output Transmit Data -
3	Output Transmit Data +	Input Receive Data +
4	NC	NC
5	NC	NC
6	Output Transmit Data -	Input Receive Data -
7	NC	NC
8	NC	NC

100Base-FX Connections

The Tx (transmit) port of device I is connected to the Rx (receive) port of device II, and the Rx (receive) port of device I to the Tx (transmit) port of device II.
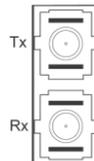
6 Features and Specifications

➢ Complies with EN 61000-6-2 & EN 61000-6-4 EMC Generic standard immunity for industrial environment.
➢ Supports IEEE802.3az 10Base-Te only. 10Base-T is not supported. 10Base-Te is fully interoperable with 10Base-T over 100m of class D (Category 5) or better cabling as specified in ISO/IEC 11801:1995.
➢ Supports 802.3az/802.3u/802.3x. Auto-negotiation: 10/100Mbps, Full/Half-duplex. Auto MDI/MDIX.
➢ 100Base-FX: Multi mode SC or ST type, Single mode SC or ST type.
➢ 100Base-BX: WDM Multi mode or Single mode SC type.
➢ Supports 1024 MAC addresses, 448K bits buffer memory.
➢ IEEE802.3x Flow control for Full-duplex, Back pressure for Half-duplex.
➢ Non-blocking architecture and full wire-speed forwarding rate.
➢ Supports IEEE802.1p QoS with two priority queues.
➢ Supports IEEE802.3az Energy Efficient Ethernet (EEE).
➢ Supports Max. length of frame up to 1552 Bytes.
➢ Power Consumption: 1.82W Max. 0.14A @ 12VDC, 0.07A @ 24VDC, 0.038A @ 48VDC.
➢ Power Supply: DC Terminal Block power input, 12-48VDC.
➢ Operating temperature ranges from -10 to 60°C (14 to 140°F).
➢ Plastic compact DIN-Rail industrial case design.
➢ Provides 4kV surge protection.

7 Installation

Assembly: Place the device on the DIN rail from above using the slot. Push the front of the device toward the mounting surface until it audibly snaps into place.

Startup: Connect the supply voltage to start up the device via the terminal block.

Dismantling: Pull out the lower edge and then remove the device from the DIN rail.