EISK8P-GT

CTRLink®

Plug and Play Gigabit Switching Hub w/PoE for Automation Systems

Installation Guide

The EISK8P-GT gigabit switching hub is designed for the automation environment. Like all switches from Contemporary Controls, it features non-blocking (full wire-speed) operation, but it also complies to the IEEE 802.3af standard for PoE (Power-Over-Ethernet). All eight Auto-MDIX ports automatically negotiate data rate (10/100/1000 Mbps) with attached devices — controlling data flow with the PAUSE function in full-duplex links or the backpressure method in half-duplex links. Ports 5–8 also act as PoE, PSE (Power Sourcing Equipment), with each port providing a minimum of 12.95 W to a PoE-compliant PD (Powered Device). Each PoE port exchanges signals with its attached PD and provides the 48VDC PoE power on two pairs of the Cat5e cable for use by the PD.

The EISK8P-GT supports the 802.3af protocol for powering up devices as follows: With the switch powered up, an Ethernet cable ties any of ports 5–8 to an attached device, but the port delivers no power until the attached device is checked for a valid 25 kΩ resistance (the PD signature). Once this value is sensed, the switch knows that the attached device is a valid PD — so the port applies power on connector pins 1 and 2 (+48VDC) and 3 and 6 (48V Return) to power the PD. Using this scheme, ports 5–8 support both PoE or non-PoE devices.

In addition to a power LED, each port has two LEDs for link/activity/rate. The EISK8P-GT is provided with a writeable label for easy identification of the remote device attached to each cable. Its 2-pin removable power connector requires 48VDC for operation.

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INDUSTRIAL
CONTROL
EQUIPMENT
4EA4

Specifications

Electrical (Class 2 Circuits Only)

INPUT
Voltage: 48 VDC ±5% (Isolated)
Power: 62 W (all PoE ports used)
             5 W (no PoE ports used)
PoE OUTPUT
Voltage: 48 VDC ±10%
Power: 12.95 W (minimum)

Environmental

Operating Temperature: 0°C to +60°C
Storage Temperature: − 40°C to +85°C
Humidity, non-cond.:   10% to 95%
Protection: IP 30

Functional

Compliance: ANSI/IEEE 802.3af
Data Rates: 10, 100 and 1000 Mbps
Signalling: 10BASE-T, 100BASE-TX
                and 1000BASE-T
Connectors: Shielded RJ-45
Segment length: 100 m (maximum)

Mounting   TS-35 DIN-rail

Shipping Weight   1 lb. (0.45 kg)
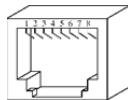
Regulatory Compliance

CE Mark; CFR 47 Part 15, Class A
UL 508, C22.2 No. 142-M1987
IEEE 802.3af

LED Indicators

Power   green
Activity/Link   green or yellow

RJ-45 Connector Pin Assignments

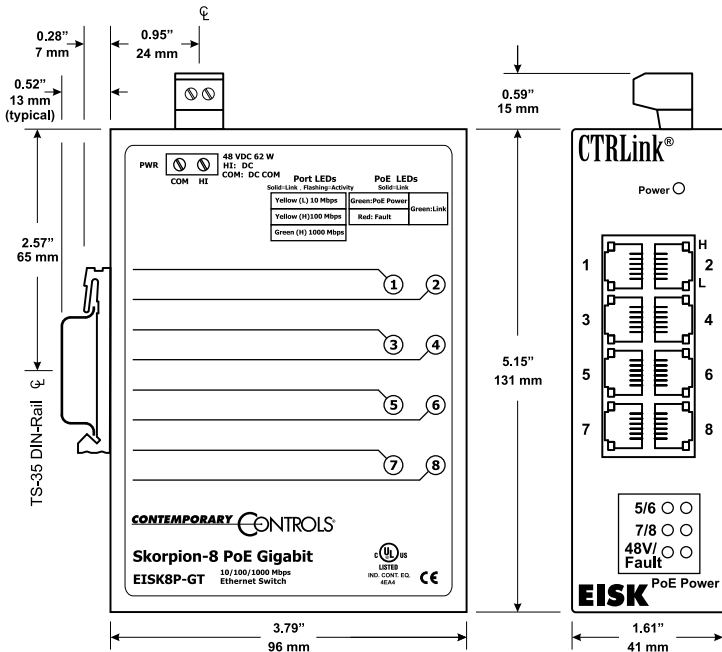|	All Ports	Power Added to PoE Ports
1	BI_DA+	+48 VDC
2	BI_DA−	+48 VDC
3	BI_DB+	48 VDC Return
4	BI_DC+	
5	BI_DC−	
6	BI_DB−	48 VDC Return
7	BI_DD+	
8	BI_DD−	

Network Connections

Either straight-through or crossover cables can be used to connect to a non-PoE Ethernet device that supports Auto–MDI/X or to a PoE powered device. However, verify that the proper polarity of the PoE power on pins 1, 2, 3, and 6 remains intact.

LED Indicators

The "Power" LED glows solid green when the switch is properly powered. To aid in troubleshooting, each port has two LEDs. The Port 2 LED labelled "H" glows if a link exists at 1000 Mbps (green) or at 100 Mbps (yellow). Its LED labelled "L" is normally unlit but glows yellow if a 10 Mbps link exists. Either the "H" or "L" LEDs flash to show activity. The LEDs of all other ports are unlabelled but work the same.

Each PoE port has an LED to indicate that the port is delivering power to a PD. The 48V LED indicates proper PoE power and the Fault LED glows red during a PoE power fault condition.

Dimensions

0.28"
7 mm

0.95"
24 mm

0.52"
13 mm
(typical)

0.59"
15 mm

2.57"
65 mm

TS-35 DIN-Rail

PWR

COM HI

48 VDC 62 W
HI: DC
COM: DC COM

Port LEDs
Solid=Link , Flashing=Activity

| Yellow (L) 10 Mbps |
| Yellow (H)100 Mbps |
| Green (H) 1000 Mbps |

PoE LEDs
Solid=Link

| Green:PoE Power | |
| Red: Fault | Green:Link |

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Skorpion-8 PoE Gigabit

EISK8P-GT 10/100/1000 Mbps
Ethernet Switch

3.79"
96 mm

CTRLink®

Power ○

1   H   2
     L

3   4

5   6

7   8

| 5/6 ○ ○ |
| 7/8 ○ ○ |
| 48V/ ○ ○ |
| Fault |

EISK PoE Power

5.15"
131 mm

1.61"
41 mm

Need more help installing this product?

For more information, visit our website at www.ccontrols.com. If contacting our office, ask for Technical Support.

Warranty

Contemporary Controls (CC) warrants this product to the original purchaser for five years from the shipping date. If it fails to operate in compliance with its specification during this period, CC will, at its option, repair or replace the product at no charge. The customer is responsible for shipping the product; CC assumes no responsibility for the product until received. This limited warranty covers products only as delivered. If user modification damages the product, repair or replacement are not covered. Damage from abuse, accident, disaster, misuse, or incorrect installation are not covered. This warranty in no way warrants suitability of the product for any specific application. More warranty information can be found at www.ccontrols.com.

> **Warning:** This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Returning Products for Repair

Return the product to the location where it was purchased by following the instructions at the URL below:

www.ccontrols.com/rma.htm

Declaration of Conformity

Information about the regulatory compliance of this product can be found at the URL below:

www.ccontrols.com/compliance.htm