EISK8-100T

CTRLink®

Plug and Play Switching Hub for Automation Systems

Installation Guide

The EISK8-100T Skorpion switching hub is designed for the automation environment. Like all Ethernet switches from Contemporary Controls, it features non-blocking (full wire-speed) operation. It divides an Ethernet network into eight collision domains, "bridging" data links to create larger network diameters than possible with repeating hubs. Each port automatically negotiates its data rate to either 10 Mbps or 100 Mbps and sets flow control with the PAUSE function in full-duplex links or with the backpressure method in half-duplex links.

The switch provides preamble regeneration with symmetry and amplitude compensation and retimes signals to eliminate jitter. Digital pre-emphasis compensates for inherent signal strength roll-off. Link integrity is monitored, verifying that a working adapter or hub is on the distant end of a segment.

Port assignments are learned by reading Ethernet frames and logging the source addresses to a table. Throughput is optimized by restricting traffic to those ports that are party to a data exchange, while other data is simultaneously exchanged on other ports. Store-and-forward operation is implemented and broadcast, multicast, or unicast transmissions are received by all ports.

The EISK8-100T has eight Auto-MDIX ports for attaching local devices. In addition to a power LED, each port has one LED for link/activity and one for port speed status.

The unit operates from a wide range of low-voltage AC or DC power.

The EISK8-100T is provided with a writeable label for easy identification of the remote device attached to each cable.

c **UL** us
LISTED
INDUSTRIAL
CONTROL
EQUIPMENT
4EA4

CONTEMPORARY CONTROLS®

Specifications

Electrical

INPUT	DC	AC
Voltage:	10–36 V	24 V +/-10%
Power:	2 W	3 VA
Frequency:	N/A	47–63 Hz
Class 2 Circuits Only		

Environmental

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

DIN-rail Mounting TS-35

Shipping Weight 1 lb (0.45 kg)

Regulatory Compliance

CE Mark; CFR 47, Part 15, Class A;
RoHS; UL508—Industrial Control
Equipment

For use in Class 2 circuits
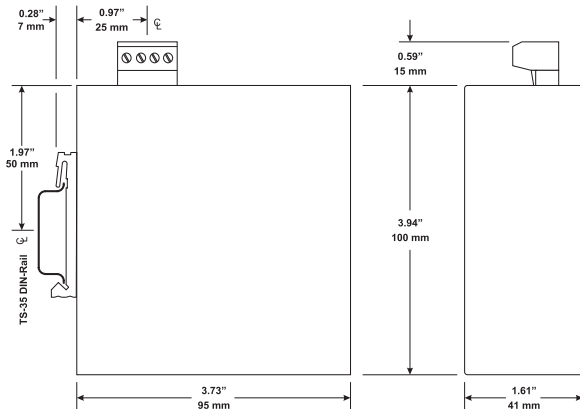
Functional

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

LED Indicators

Power	green
Link/Activity	green/flashing
Speed	green for 100 Mbps link

RJ-45 Connector Pin Assignments

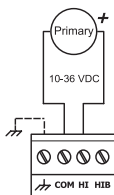| Pin	Function
1	TD+
2	TD–
3	RD+
6	RD–

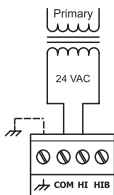(All other pins are unused.)

Mechanical
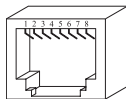
Power Options

Connecting chassis to earth or using a
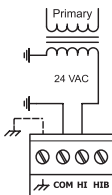backup source is always optional.
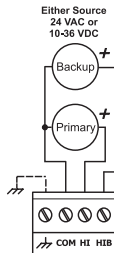
All options shown are for use
in Class 2 circuits.

DC Powered

AC Powered

**AC Powered with
Grounded Secondary**

**Redundant
Power**

Power Considerations

Voltage in the range of 10–36 VDC or 24 VAC +/-10% must deliver current commensurate with power consumption. Recommended size for solid power conductors is 16–22 AWG; for stranded conductors, use 16–18 AWG. Ground is directly connected to zero volts and the chassis is isolated from zero volts. Input connections are reverse-polarity protected.

Network Connections

The switch employs Auto-MDIX technology so that either straight-through or crossover cables can be used to connect to network interface adapters or to another hub.

LED Indicators

The PWR LED glows solid green when the switch is properly powered. To aid in troubleshooting, each port has two LEDs. The bottom port LED glows solid green if a link exists and flashes to show activity. The top port LED glows solid green for 100 Mbps link or is unlit when that port is operating at 10 Mbps.

Need more help installing this product?

For more information, visit 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

Additional compliance documentation can be found on our website.