

# EISK5-GT/H

CTRLink®

## Skorpion Gigabit Diagnostic Switch for Protocol Debugging

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### Installation Guide

The EISK5-GT/H gigabit switching hub is designed as an aid in diagnosing Ethernet communication issues and debugging software. This device has all of the features of a normal switch except that — like a repeating hub — it passes messages received by any port to all other ports. This allows the activity of all ports to be monitored by a “sniffer” attached to any port — an ability that would otherwise require the “port mirror” function of a more costly managed switch.

The five ports of the EISK5-GT/H offer features that traditional repeating hubs do not. Each port supports Auto-MDIX — so either straight-through or crossover cabling can be used. The collision domain is terminated at each port so there is no cabling length limit — except that each segment cannot exceed the 100 m specification for Ethernet. Store-and-forward operation mitigates against lost messages. Each port automatically negotiates its data rate to 10 Mbps, 100 Mbps or 1000Mbps.

The EISK5-GT/H has five Auto-MDIX ports for attaching local devices. In addition to a power LED, each port has LEDs showing link/activity/rate.

The EISK5-GT/H is powered from a low-voltage source and is provided with a writeable label for easy identification of the remote device attached to each cable.

**CONTEMPORARY** CONTROLS®



# Specifications

## Electrical

INPUT	DC	AC
Voltage:	10–36 V	24 V ±10%
Power:	3 W	5 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

## Mounting

TS-35 DIN-rail

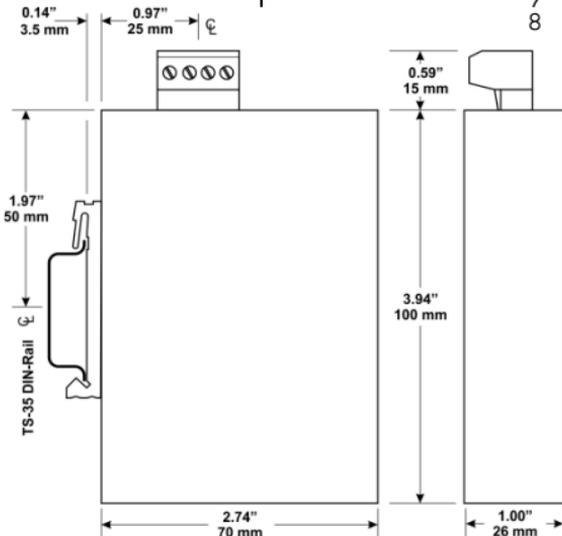
## Shipping Weight

1 lb (0.45 kg)

## Regulatory Compliance

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

## Mechanical



## Functional

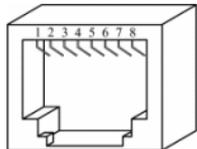
Compliance:	ANSI/IEEE 802.3
Data Rates:	10, 100 and 1000 Mbps
Signalling:	10BASE-T, 100BASE-TX and 1000BASE-T
Connectors:	Shielded RJ-45
Segment length:	100 m (maximum)

## LED Indicators

Power	green
Activity/Link/Rate	green or yellow

## RJ-45 Connector Pin Assignments

Pin	Function
1	BI_DA+
2	BI_DA-
3	BI_DB+
4	BI_DC+
5	BI_DC-
6	BI_DB-
7	BI_DD+
8	BI_DD-

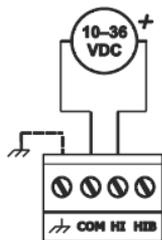


## Power Options

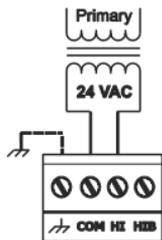
Input power: 10–36 VDC or 24 VAC  $\pm$  10%, 47–60 Hz.

Connecting chassis to earth or using a backup source is always optional.

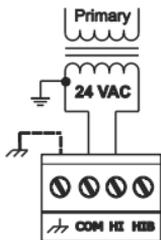
All options shown are for use in Class 2 circuits if applied voltage is limited to 30V DC.



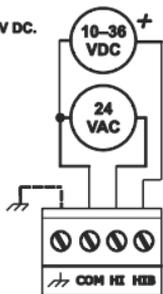
DC Powered



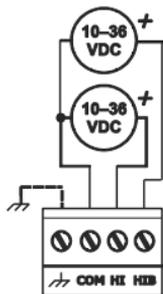
AC Powered



AC Powered with  
Grounded Secondary



AC Powered with  
DC Backup



Redundant DC  
Powered

## Power Considerations

Voltage in the specified range must deliver current commensurate with power consumption. Recommended size for solid power conductors is 16–22 AWG; for stranded conductors, use 16–18 AWG. COM is directly connected to zero volts and chassis is isolated from zero volts. Input connections are reverse-polarity protected.

## Network Connections

The unit 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 Port 1 LED labelled “H” glows if a link exists at 1000 Mbps (green) or at 100 Mbps (yellow). The 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 Ports 2–5 are unlabeled but work the same.

## Need more help installing this product?

For more information, visit [www.ccontrols.com](http://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](http://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](http://www.ccontrols.com/rma.htm)

## Declaration of Conformity

Additional compliance documentation can be found on our website.

