

EISK8M Series

CTRLink®

Managed Switching Hub for Automation Systems

Installation Guide

EISK8M managed switches provide capabilities beyond both Plug and Play (PnP) and configurable switches. Besides conventional PnP features (auto-negotiation, 10/100 Mbps data rate, half- or full-duplex operation, flow control), the EISK8M adds advanced features such as RapidRing™, VLAN, Trunking, Quality of Service (QoS), Port Mirroring and the Simple Network Management Protocol (SNMP).

Each 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.

Configuration is done via a web browser from a computer set to communicate on the same LAN as the switch default IP address of 192.168.92.68.

All ports support flow control using PAUSE for full-duplex links and backpressure for half-duplex. All RJ-45 ports feature Auto-MDIX for ease of cabling.

Each switch is powered from low-voltage AC or DC sources and redundant power connections are provided for backup considerations. The front of each unit features a power LED, a management status LED and bi-colour LEDs for the link status, activity, and data rate of each port.

The EISK8M features a writeable label for easy identification of the remote device attached to each cable.

If needed, you can reset factory default settings via an aperture located on the bottom of the unit.

CONTEMPORARY CONTROLS®



Specifications

Electrical

INPUT

| | DC | AC |
|-----------------|---------|----------------|
| Voltage: | 10–36 V | 24 V \pm 10% |
| Power (copper): | 4 W | 10 VA |
| Power (fibre): | 6 W | 13 VA |
| Frequency: | N/A | 47–63 Hz |

Environmental

| | | |
|-----------------|------------------------|----------|
| Operating Temp: | 0°C | to +60°C |
| Storage Temp: | -40°C | to +85°C |
| Humidity: | 10–95%, non-condensing | |

DIN-rail Mounting

TS-35

Shipping Weight

1 lb (0.45 kg)

Regulatory Compliance

CE Mark; EN55022; EN55024
CFR 47, Part 15, Class A
UL508 — Industrial Control Equipment
For use in Class 2 circuits

Functional

Compliance: ANSI/IEEE 802.3

Copper

| | Copper | Fibre |
|-------------|------------------------|------------|
| Data Rates: | 10/100 Mbps | 100 Mbps |
| Signalling: | 10BASE-T 100BASE-TX | 100BASE-FX |

| | | |
|-----------------------|------------------|----------|
| Connectors: | RJ-45 (shielded) | SC or ST |
| Segment Length (max): | 100 m | 2 km* |
| | | 15 km** |

* multimode, ** single-mode,
full-duplex full-duplex

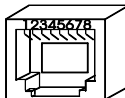
LED Indicators

| | |
|--------|--------------|
| Power | green |
| Status | green |
| Ports | yellow/green |
| Duplex | green |

RJ-45 Connector Pin Assignments

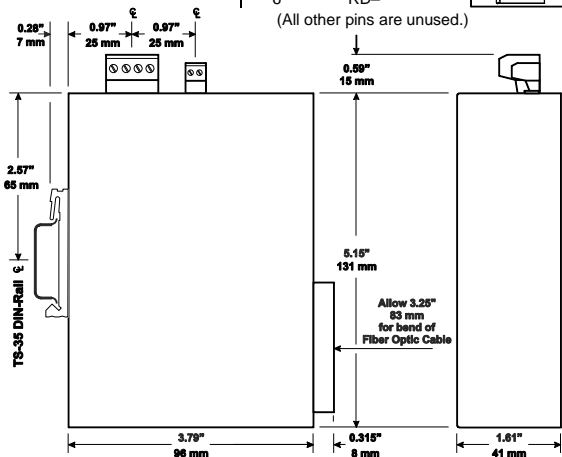
Pin Function

| | |
|---|-----|
| 1 | TD+ |
| 2 | TD- |
| 3 | RD+ |
| 6 | RD- |



(All other pins are unused.)

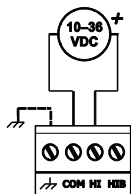
Mechanical



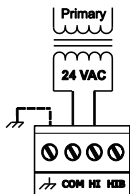
Power Options

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.

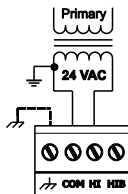
All options shown are for use in Class 2 circuits.



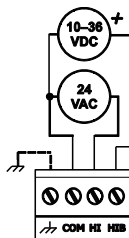
DC Powered



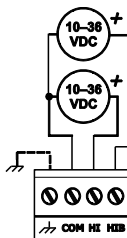
AC Powered



**AC Powered with
Grounded Secondary**



**Redundant
Power**



**Redundant
Power**

Power Considerations

Voltage in the specified range must deliver current commensurate with power consumption. The 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 the chassis is isolated from zero volts. Input connections are reverse-polarity protected.

LED Indicators

The “PWR” LED glows solid green when the switch is properly powered. The behaviour of the “STAT” LED is explained in the Software Manual. To aid in troubleshooting, each port has two LEDs. The Port 1 LED labelled “L” glows solid if a link exists, flashes to show activity and shows data rate by colour: green for 100 Mbps and yellow for 10 Mbps. The LED labelled “D” glows solid green if full-duplex is on or is unlit when that port is operating in half-duplex mode — but in half-duplex operation it will flash if a collision occurs. The LEDs of Ports 2–5 are unlabeled but work the same as the Port 1 LED. The fibre port LEDs glow solid green when a link exists and flash to show activity.

Reset Switch

If needed, you can reset factory default settings via a hole on bottom of the unit. Use a paperclip or similar tool to press the recessed button for at least 3 seconds while the unit is powered. Then release the button and remove power for 3 seconds. Restore power and the unit will now use its default IP values and User ID and Password which are both blank.

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.

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

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

www.ccontrols.com/compliance.htm

