

EISK CTRLink® Family – Cost-Effective PnP Switches



Flexibility in Design

- 5-, 8- or 16-port 10/100 Mbps compact switches
- Fibre options include multimode and single-mode versions, ST or SC connectors
- Industrial temperatures: 0°C to +60°C

Simple Installation

- Compact size:
 - 5-port copper (3.94" H x 2.74" D x 1.00" W; 100 mm x 70 mm x 26 mm)
 - 8-port copper (3.94" H x 3.73" D x 1.61" W; 100 mm x 95 mm x 41 mm)
 - 16-port copper (6.02" H x 3.79" D x 1.61" W; 153 mm x 96 mm x 41 mm)
 - 5-port fibre (4.85" H x 2.74" D x 1.00" W; 123 mm x 70 mm x 26 mm)
 - 8-port fibre (5.15" H x 3.79" D x 1.61" W; 131 mm x 96 mm x 41 mm)
- DIN-rail mountable
- 10–36 VDC or 24 VAC (± 10%) 47–63 Hz
Power is provided through a quick-disconnect terminal strip.
- Provisions for redundant power connections
- Activity/link and data rate LEDs

Plug-and-Play Functionality

- Auto-MDIX on all copper ports
- Auto-negotiated data rate, duplex, and flow control on copper ports
- Full- or half-duplex on copper ports

Standards Compliant

- Industrial environment EMC compatible
- UL 508 Listed, Industrial Control Equipment
- C-UL Listed, CSA 22.2 No. 14-M91, Industrial Control Equipment
- CE Mark
- RoHS compliant

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Product Overview

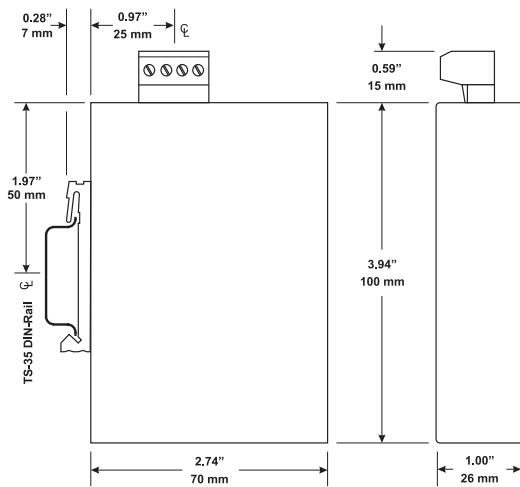
For control panels where DIN-rail space is at a premium, the Skorpion series of plug-and-play Ethernet switches with widths as little as one inch (26 mm) is the answer. Housed in a rugged metal enclosure with a metal DIN-rail clip, the Skorpion series includes models with 5, 8 and 16 ports. Some models provide one or two-ports of either single-mode or multimode fibre optics with either SC or ST connectors. No configuration is necessary. All copper ports automatically configure their data rate and duplex using the Auto-negotiation protocol. Depending on the capability of the link partner, communication is established at either 10 Mbps or 100 Mbps and at either half- or full-duplex duplex. Each port will adapt to either a straight-through or crossover cable by using the Auto-MDIX protocol. Fibre ports are fixed at 100 Mbps full-duplex for the highest performance. Multimode cable lengths cannot exceed 2 km and single-mode lengths cannot exceed

15 km without a special order. Fibre optics is ideal for inter-building cabling in a campus environment. The half-wave rectified low-voltage power supply allows for the sharing of power with other 24 VAC/VDC control devices. LED indicators of data rate and activity assist in troubleshooting. For control panels of nominal depth, the Skorpion series offers the widest range of Ethernet connectivity solutions.

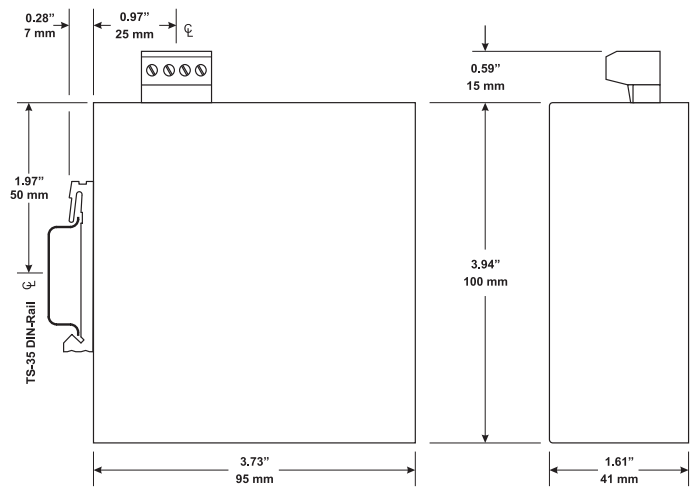
All EISK models meet regulatory approvals including UL 508 Listed, C-UL Listed, CSA 22.2 No. 14-M91, CE Mark and RoHS compliance.

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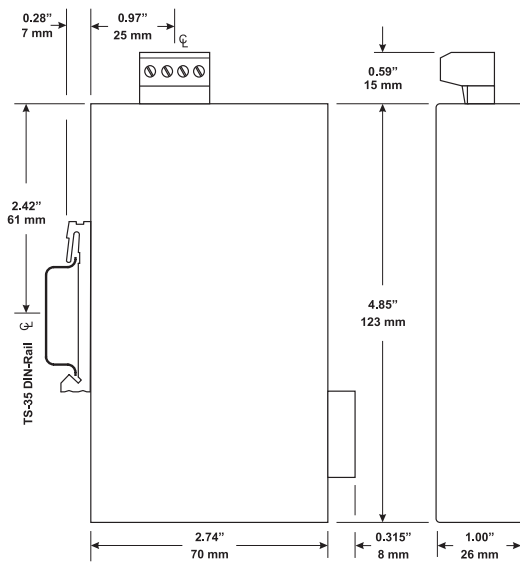
Mechanical



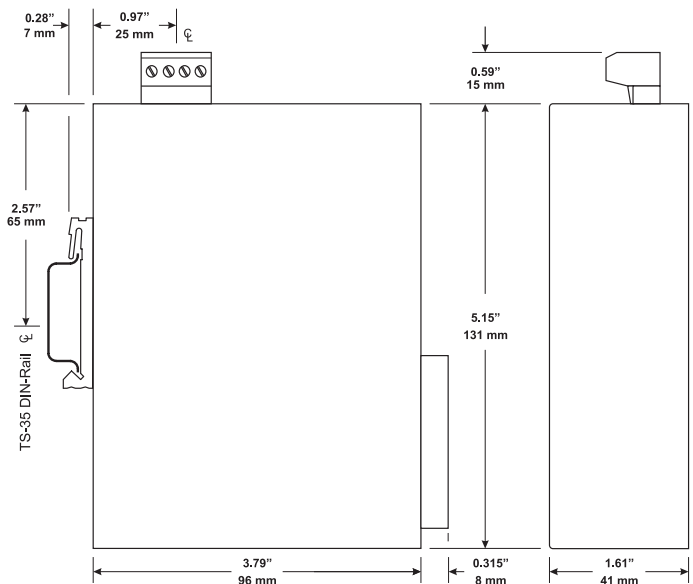
EISK5-100T



EISK8-100T



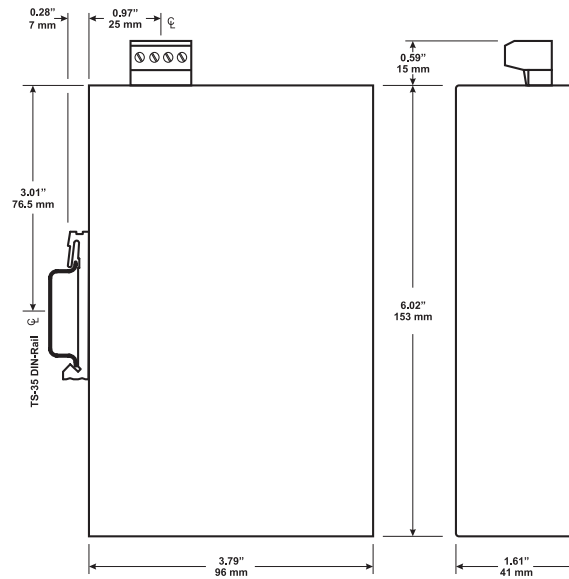
EISK5 fibre models



EISK8 fibre models

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Mechanical

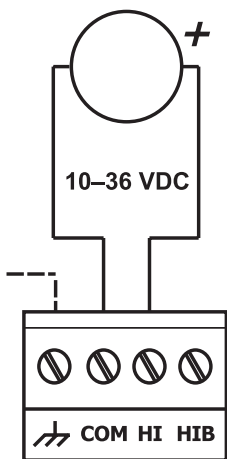


EISK16-100T

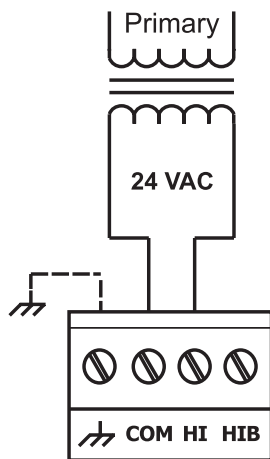
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Power Diagrams

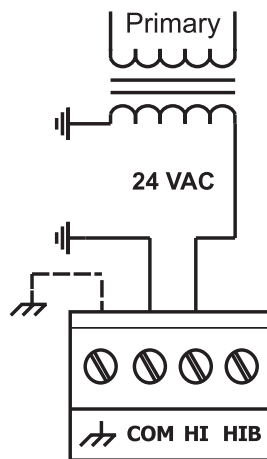
Connecting chassis to earth or using a backup source is always optional.



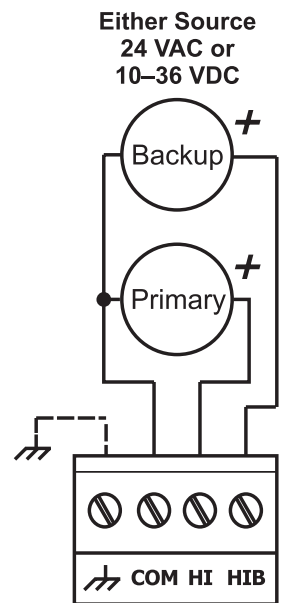
DC Powered



AC Powered



AC Powered with Grounded Secondary



Redundant Power

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Specifications

Electrical

Input voltage	DC	AC
Input power	10–36 Volts	24 Volts (±10%)
	5 W (EISK5-100T)	5 VA (EISK5-100T)
	5 W (EISK5-100T/FT, FC, FCS)	5 VA (EISK5-100T/FT, FC, FCS)
	6 W (EISK8-100T)	6 VA (EISK8-100T)
	7 W (EISK8-100T/FT, FC, FCS)	7 VA (EISK8-100T/FT, FC, FCS)
	10 W (EISK16-100T)	10 VA (EISK16-100T)
Input frequency	N/A	47–63 Hz

Environmental

Operating temperature	0°C to 60°C
Storage temperature	-40°C to +85°C
Relative humidity	10–95%, noncondensing
Protection	IP30

Functional

Standards	IEEE 802.3
Process type	Store-and-forward

Ports

	<i>Copper</i>	<i>Fibre 1300 nm</i>
Interface	10BASE-T/100BASE-TX	100BASE-FX
	10/100 Mbps	100 Mbps
	Auto-negotiated data rate, flow control, full- or half-duplex mode, and Auto-MDIX cable connection	Full-duplex
Connectors	Shielded RJ-45	SC (on multimode or single-mode models) ST (only on multimode models)
Maximum segment length	100 m	2 km (multimode), optical budget: 13 dB 15 km (single-mode), optical budget: 19 dB
Signal LEDs	Link (L): Yellow — 10 Mbps Green — 100 Mbps Flashing — Activity	Link (L): Green — 100 Mbps Flashing — Activity
	Duplex (D): Off — Half-duplex Green — Full-duplex	
Power LED	Green—Power	
Flow control	Half-duplex (backpressure) Full-duplex (PAUSE)	Full-duplex (PAUSE)

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RJ-45 Pin Assignments

MDI-X ¹	10BASE-T/100BASE-TX Usage
1	TD+
2	TD-
3	RD+
4	Not Used
5	Not Used
6	RD-
7	Not Used
8	Not Used

¹Ports normally assume the internal crossover function, but will automatically adapt to connected devices.

Electromagnetic Compatibility

<i>Standard</i>	<i>Test Method</i>	<i>Description</i>	<i>Test Levels</i>
EN 55024	EN 61000-4-2	Electrostatic Discharge	6 kV contact & 8 kV air
EN 55024	EN 61000-4-3	Radiated Immunity	10 V/m, 80 MHz to 1 GHz
EN 55024	EN 61000-4-4	Fast Transient Burst	1 kV clamp & 2 kV direct
EN 55024	EN 61000-4-5	Voltage Surge	1 kV L-L & 2 kV L-Earth
EN 55024	EN 61000-4-6	Conducted Immunity	10 Volts (rms)
EN 55024	EN 61000-4-11	Voltage Dips & Interruptions	1 Line Cycle, 1 to 5 s @ 100% dip
EN 55022	CISPR 22	Radiated Emissions	Class A
EN 55022	CISPR 22	Conducted Emissions	Class B
CFR 47, Part 15	ANSI C63-4	Radiated Emissions	Class A

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Ordering Information

Copper Only

Model	Description
EISK5-100T	Five-port 10BASE-T/100BASE-TX switch
EISK8-100T	Eight-port 10BASE-T/100BASE-TX switch
EISK16-100T	Sixteen-port 10BASE-T/100BASE-TX switch

Fibre and Copper

Model	Description
EISK5-100T/FC	Four-port 100BASE-TX/one-port 100BASE-FX (multimode) switch, SC connectors
EISK5-100T/FT	Four-port 100BASE-TX/one-port 100BASE-FX (multimode) switch, ST connectors
EISK5-100T/FCS	Four-port 100BASE-TX/one-port 100BASE-FX (single-mode) switch, SC connectors
EISK8-100T/FC	Six-port 100BASE-TX/two-port 100BASE-FX (multimode) switch, SC connectors
EISK8-100T/FT	Six-port 100BASE-TX/two-port 100BASE-FX (multimode) switch, ST connectors
EISK8-100T/FCS	Six-port 100BASE-TX/two-port 100BASE-FX (single-mode) switch, SC connectors

Accessories

Model	Description
AI-XFMR	Wall-mount plug-in transformer, 120 VAC input/24 VAC output (nominal values)
AI-XFMR-E	Wall-mount plug-in transformer, 230 VAC input/24 VAC output (nominal values)

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