data SHEET

EISK16-100T Skorpion Switch
Cost Effective, 100 Mbps-speed — Compact Size

The EISK16-100T Skorpion Switch is a sixteen-port unmanaged Ethernet switch that provides 100 Mbps performance on all ports to accommodate a range of control devices and workstations commonly found in an automation project. For 10 Mbps legacy devices, the switch will automatically reduce its port-speed accordingly. This low-cost compact unit utilizes a rugged metal enclosure and is intended for installation in control panels using DIN-rail mounting.

This is a plug-and-play Ethernet switch that requires no configuration. All ports automatically configure their data rate and duplex using the Auto-negotiation protocol. Depending on the capability of the link partner, communication is set at 10 or 100 Mbps and at either half- or full-duplex. Each port accommodates either a straight-through or crossover cable using the Auto-MDIX protocol.

The unit is powered from a choice of low-voltages (AC or DC). Redundant power connections are provided for back-up power schemes. LEDs assist in troubleshooting.

- Plug-and-Play operation
- 10BASE-T/100BASE-TX
- Shielded RJ-45 connectors
- Auto-negotiation of speed and duplex
- Auto-MDIX supports cable inversion

- DIN-rail mounting
- Rugged metal enclosure
- Diagnostic LEDs
- Enhanced EMC compliance
- UL 508 listed, c-UL listed, CE mark
- 24 VAC/VDC powered
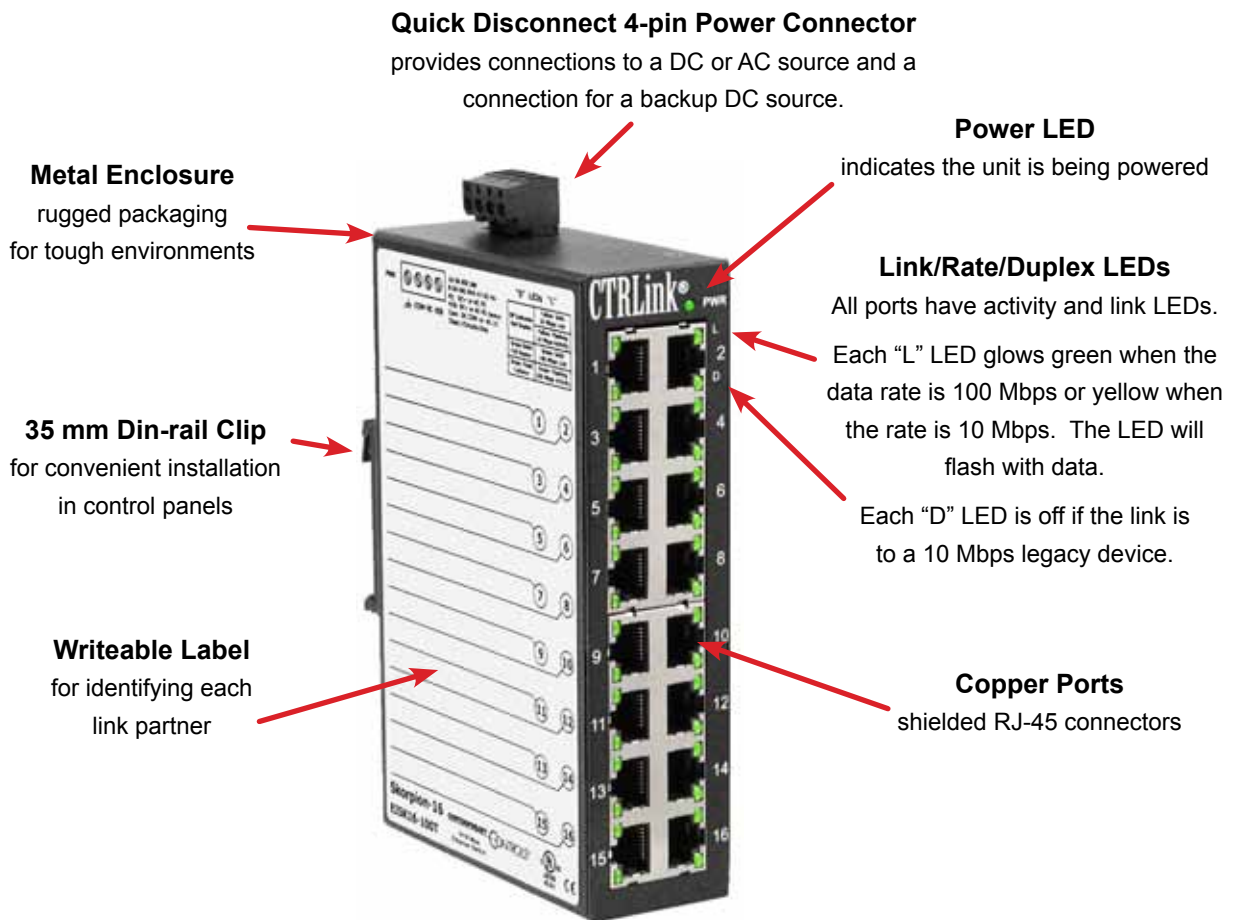
CTRLink®

CONTEMPORARY CONTROLS

Overview

The Skorpion Switch is intended for control panel installations where DIN-rail space is at a premium by requiring a width of only 41 mm of rail space. A metal DIN-rail clip attached to the aluminium enclosure can survive the toughest installation. A writable side label allows the installer an opportunity to document field cabling locations right on the unit.

The switch can powered from either a 10–36 VDC or 24 VAC (±10%) source. Its half-wave rectified low-voltage power supply allows the sharing of power with other 24 VAC/VDC control devices from a common power supply. With redundant power connections, a backup power scheme can be supported. A removable power connector facilitates the servicing of the unit.

LEDs built into the connector indicate data rate and activity on each of the five ports — greatly assisting in troubleshooting connection issues.

The switch is UL 508 Listed and c-UL Listed for Industrial Control Equipment. It complies with CFR 47 Part 15 Class A, and carries the CE Mark. It is RoHS compliant.

Quick Disconnect 4-pin Power Connector
provides connections to a DC or AC source and a connection for a backup DC source.

Power LED
indicates the unit is being powered

Metal Enclosure
rugged packaging
for tough environments

Link/Rate/Duplex LEDs
All ports have activity and link LEDs.

Each "L" LED glows green when the data rate is 100 Mbps or yellow when the rate is 10 Mbps. The LED will flash with data.

Each "D" LED is off if the link is to a 10 Mbps legacy device.

35 mm Din-rail Clip
for convenient installation
in control panels

Writeable Label
for identifying each
link partner

Copper Ports
shielded RJ-45 connectors

Specifications

Power Requirements	10–36 VDC 10 W or 24 VAC ±10% 14 VA 47–63 Hz
Operating Temperature	0°C to 60°C
Storage Temperature	–40°C to 85°C
Relative Humidity	10–95%, non-condensing
Protection	IP30
Mounting	TS-35 DIN-rail
Shipping Weight	1 lb (0.45 kg)
Ethernet Communications	IEEE 802.3 10/100 Mbps data rate using RJ-45 connectors, 100 m (max)

LEDs

	Power	Green = power OK
	"L" LEDs	Green = 100 Mbps communication established
		Yellow = 10 Mbps communication established
		Flashing = data transmissions occurring
	"D" LEDs	Green = Full-duplex communication established
		Off = Half-duplex communication established

Regulatory Compliance   CE Mark; CFR 47, Part 15 Class A; RoHS;
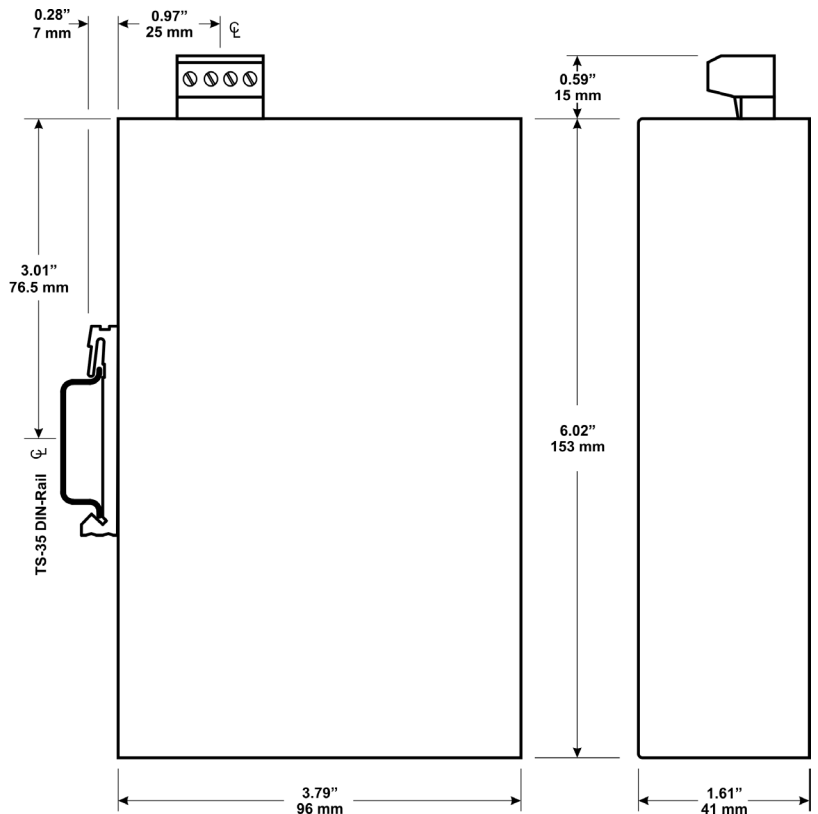UL 508 Industrial Control Equipment

RJ-45 Connector Pin Assignments

Pin	Function
1	TD+
2	TD–
3	RD+
4	Not Used
5	Not Used
6	RD–
7	Not Used
8	Not Used
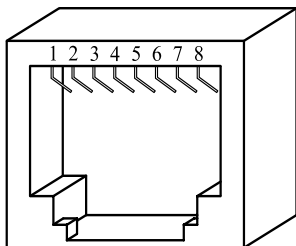
Mechanical Drawing

DS-EISK1600-BA1

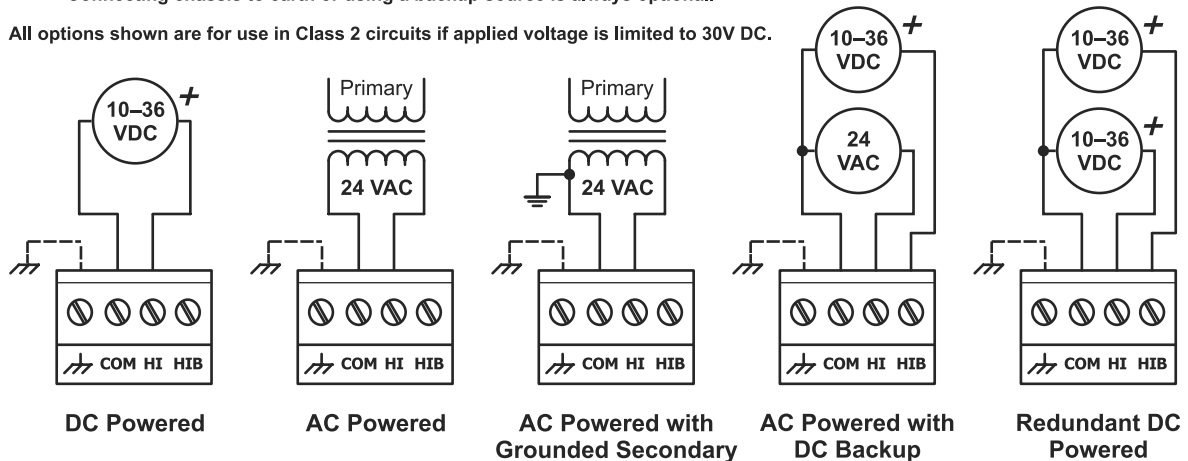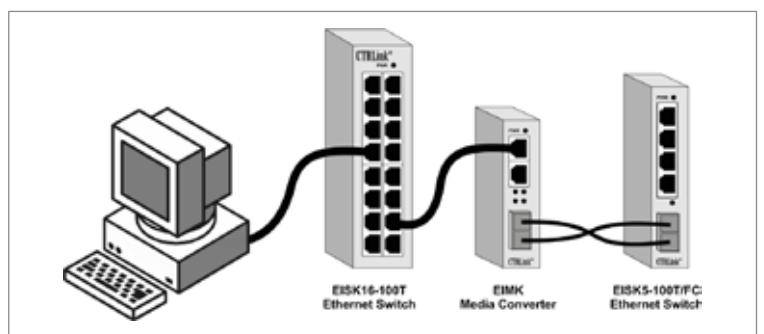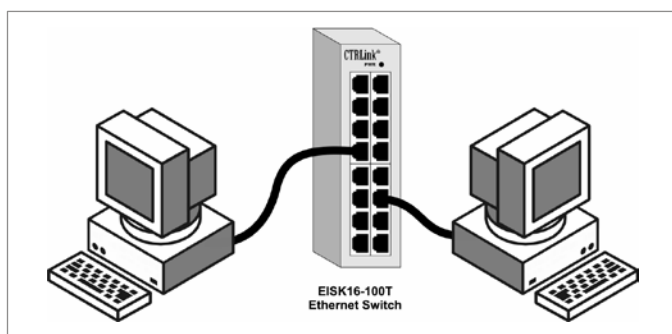# Power Considerations

Applied voltage must be in the specified range and deliver a current commensurate with power consumption. The recommended size for solid power conductors is 16–20 AWG; and for stranded conductors use 16–18 AWG. Zero volts (COM) is isolated from chassis (earth). Input connections are reverse-polarity protected.

Input power: 10–36 VDC   or   24 VAC ± 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

Typical Switch Installations

Ordering Information

Model	*Description*
EISK16-100T	Skorpion 16-Port 10/100Mbps Switch