data SHEET

EISK5-100T/F Skorpion Switch

100 Mbps speed — Copper/Fibre

The EISK5-100T/F Skorpion Switch is a five-port unmanaged Ethernet switch that provides 100 Mbps performance on all ports in order to accommodate a range of control devices and workstations commonly found in an automation project. Four of the ports are copper ports with RJ-45 connectors while one port is either a single-mode or multimode fibre port. For 10 Mbps legacy copper 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 requiring no configuration. 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 set at 10 or 100 Mbps and at either half- or full-duplex. Each copper port will accommodate either a straight-through or crossover cable by using the Auto-MDIX protocol. The fibre port is preset for 100 Mbps full-duplex operation in order to achieve the highest performance.

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

- Plug-and-Play operation
- 10BASE-T/100BASE-TX/100BASE-FX
- Single-mode or multimode fibre
- 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®

Overview

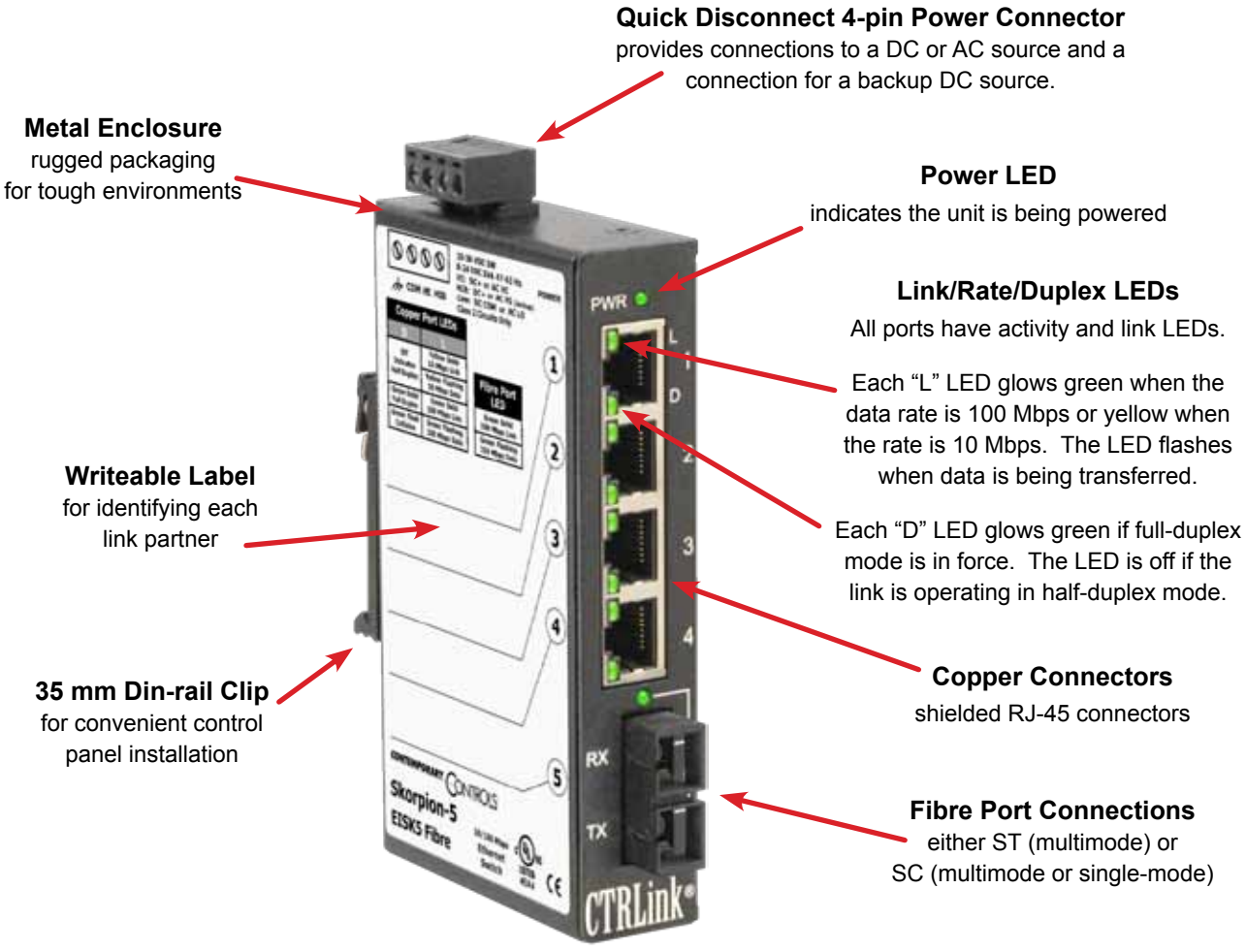
The Skorpion Switch is intended for control panel installations where DIN-rail space is at a premium by requiring a width of only one inch (26mm) of rail space. A metal DIN-rail clip attached to the aluminium enclosure can survive the toughest installation. A writable side label allows the installer an opportunity to document field cabling locations right on the unit.

There are three fibre models: multimode with ST connectors, multimode with SC connectors and single-mode with SC connectors. With single-mode, distances up to 15 km are possible.

The switch can be powered from a 10–36 VDC or a 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. For each port, the data rate will be indicated along with port activity thereby 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.

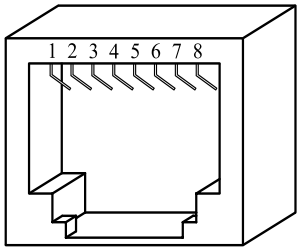


Specifications

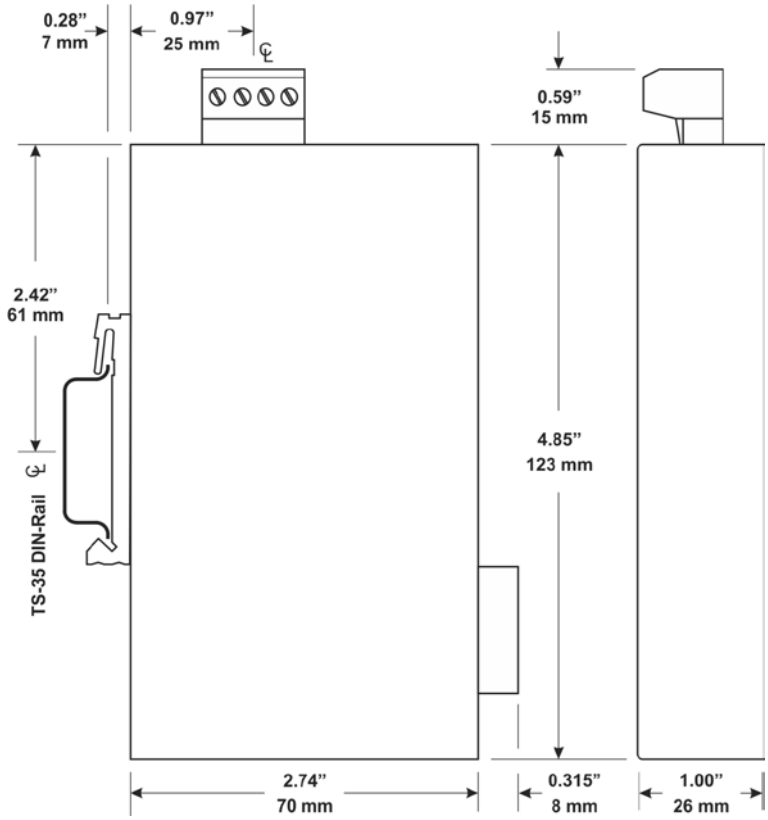
Power Requirements	10–36 VDC 3 W or 24 VAC ±10% 6 VA 47–63 Hz	
Operating Temperature	0°C to 60°C	
Storage Temperature	–40°C to 85°C	
Relative Humidity	10–95%, non-condensing	
Protection	IP30	
Mounting	TS-35 DIN-rail	
Shipping Weight	1 lb (0.45 kg)	
Ethernet Communications	IEEE 802.3 10/100 Mbps data rate using RJ-45 connectors, 100 m (max) IEEE 802.3 100BASE-FX using either ST or SC connectors	
		Multimode: 2 km maximum cable length Single-mode: 15 km maximum cable length
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

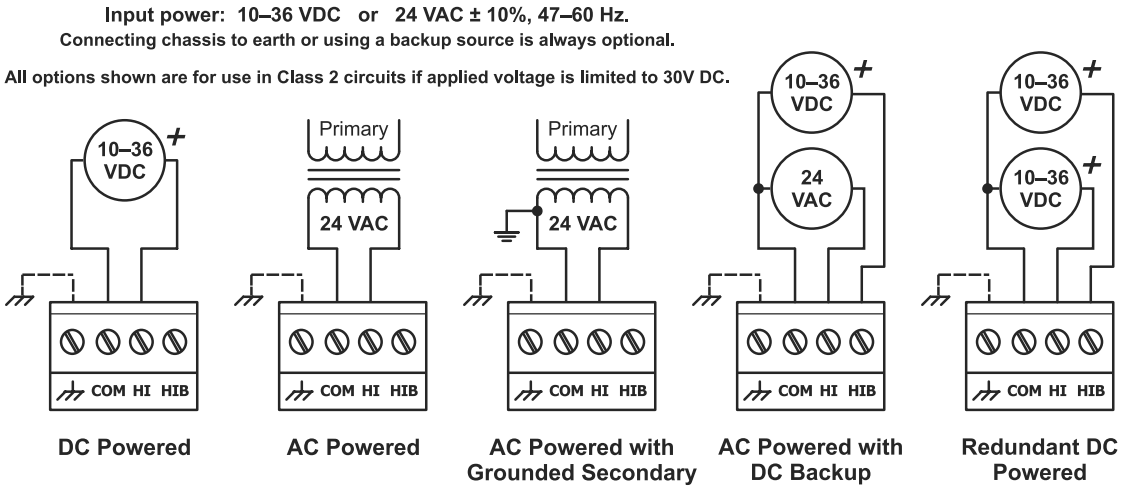


Mechanical Drawing

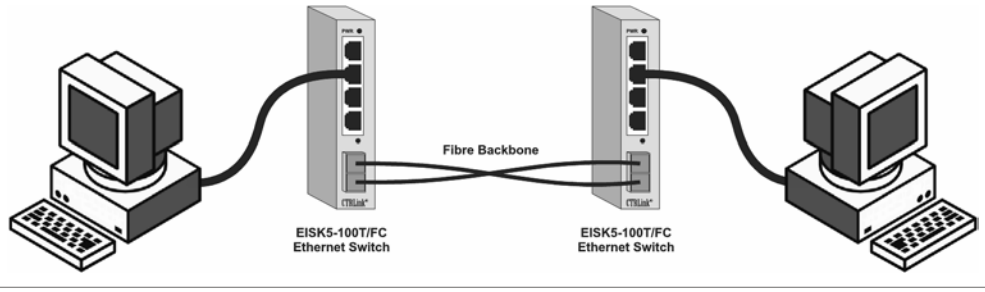


Power Considerations

Applied voltage must be 10–36 VDC or 24 VAC ±10% 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.



Typical Switch Installations



Ordering Information

Model	*Description*
EISK5-100T/FC	Skorpion 4-Port 10/100Mbps 1-Port MM SC-fiber Switch
EISK5-100T/FCS	Skorpion 4-Port 10/100Mbps 1-Port SM SC-fiber Switch
EISK5-100T/FT	Skorpion 4-Port 10/100Mbps 1-Port MM ST-fiber Switch

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