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PRODUCT INFORMATION

Model: EIR-Extend-4

4 Port Industrial Ethernet Switch and Ethernet Extender

Features

- ✓ Complies with UL508 and NEMA TS1 & TS2 Environmental requirements for Traffic control equipment

- ✓ Complies with IEC61000-6-2 EMC Generic standard immunity for Heavy Industrial environment

- ✓ Redundant Power Inputs

- ✓ Wide Operating Temperature

- ✓ Extend Ethernet up to 6232 ft (1.9 km) over standard copper wires

- ✓ Ethernet Ports: 4 RJ-45 10/100Mbps Full/Half-duplex, Auto-negotiation / Auto-MDI/MDX

- ✓ Ethernet Extend Port: 1 RJ-11 and terminal block 50Mbps Full Duplex VDSL

- ✓ Extender port compatible with EIS-Extend, EIR-Extend, EIRM-Extend-x, EIRP-Extend,

Functional Description

The EIR-EXTEND-4 is a 4 port Ethernet switch and point-to-point Ethernet Extender designed to operate in harsh environments. Designed to operate at temperatures from -40 to 75º C, it has been tested for functional operation up to 85º C. Using existing copper wire runs, it allows the extension of Ethernet signals. The EIR-EXTEND-4 is the perfect solution for installing Ethernet connectivity on the factory floor. Used with a 2nd extender the configuration is easy. Configure one unit as the local device, and the other one as the remote device. External power supplies are required (not included).

Ordering Information

Model Number	Description
EIR-Extend-4	DIN Rail Mount Ethernet Extender and switch
Accessories	
DR19RMKT	Adjustable DIN Rail 19 Inch Rack Mount Kit
EIRSP1	Single Stage Surge Protector
MDR-40-24	DIN Rail Mount Power Supply, 24 VDC, 1.7A

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Specifications

Technology	
Standards:	802.3 10BaseT
	802.3u 100BaseTx
	802.3x
	Ethernet over VDSL
Protocol	Transparent to higher level Protocols
Processing	Half-duplex: backpressure
	Full-duplex: 802.3x

Power	
Input Voltage	48 VDC – Power Jack
	24 - 48 VDC Terminal Block
Power Consumption	8.4 W Max., 0.18A@48VDC

Mechanical	
Case	DIN Mount IP30 Aluminum
Dimensions	50mm (W) x 110mm (D) x 135mm (H)
	(1.97" (W) x 4.33" (D) x 5.31" (H))
Weight	1.76 lbs (0.8 kg)

Ethernet Interface	
Ports	4 - RJ-45, 10/100BaseTX
	Full/Half Duplex
	Auto-Negotiation
	Auto-MDI/MDX
Speed	10/100 Mbps
Distance	320 ft (100 m)
Cable	CAT 5

Extender Interface	
Port	One RJ-11 or Terminal Block
Speed	Up to 50 Mbps
Distance	Up to 6,232 ft (1.9 km)
Cable	24 AWG Copper Pair (0.5mm diameter, 1 pair wire) or larger
*see LED Chart for distance/speed combinations	

Environment	
Operating Temp	-40 to 75º C (-40 to 167F) Tested to 85º C
Storage Temp	-40 to 85º C
Op Humidity	5% to 95% Non-condensing

LED Chart

LED		Speed	Distance
1	Green	1 Mbps	6232 ft (1.9 km)
	Amber	3 Mbps	5904 ft (1.8 km)
2	Green	5 Mbps	5249 ft (1.6 km)
	Amber	10 Mbps	4593 ft (1.4 km)
3	Green	15 Mbps	3936 ft (1.2 km)
	Amber	20 Mbps	3280 ft (1.0 km)
4	Green	25 Mbps	2624 ft (0.8 km)
	Amber	30 Mbps	2296 ft (0.7 km)
5	Green	40 Mbps	1968 ft (0.6 km)
	Amber	50 Mbps	984 ft (0.3 km)

Note: All speed selections are Symmetrical on DSL and Full-duplex on the Ethernet side.

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Regulatory Approvals

ISO	Manufactured in an ISO9001 facility
Safety	UL508

EMI	• FCC Part 15, Class A
	• EN61000-6-4
	  ▪ EN55022
	  ▪ EN61000-3-2
	  ▪ EN61000-3-3

EMS	EN61000-6-2
	• EN61000-4-2 (ESD Standards)
	  - Contact: + / - 4KV; Criteria B
	  - Air: + / - 8KV; Criteria B
	• EN61000-4-3 (Radiated RFI Standards)
	  - 10V/m, 80 to 1000MHz; 80% AM Criteria A
	• EN61000-4-4 (Burst Standards)
	  - Signal Ports: + / - 4KV; Criteria B
	  - D.C. Power Ports: + / - 4KV; Criteria B
	• EN61000-4-5 (Surge Standards)
	  - Signal Ports: + / - 1KV; Line-to-Line; Criteria B
	  - D.C. Power Ports: + / - 0.5KV; Line-to-earth; Criteria B
	• EN61000-4-6 (Induced RFI Standards)
	  - Signal Ports: 10Vrms @ 0.15 - 80MHz; 80% AM Criteria A
	  - D.C. Power Ports: 10Vrms @ 0.15 - 80MHz; 80% AM
	  - Criteria A
	• EN61000-4-8 (Magnetic Field Standards)
	  - 30A/m @ 50, 60Hz; Criteria A

Environmental Test Compliance	• IEC60068-2-6 Fc (Vibration Resistance)
	  o 5g @ 10 - 150Hz, Amplitude 0.35mm (Operation/Storage/
	  o Transport)
	• IEC60068-2-27 Ea (Shock)
	  o 25g @ 11ms (Half-Sine Shock Pulse; Operation)
	  o 50g @ 11ms (Half-Sine Shock Pulse; Storage/Transport)
	• IEC60068-2-32 Ed (Free Fall)
	  o 1M (3.281ft.)

Installation:

• Din Rail (35mm) Panel Mount, Rack Mounting with optional DR19RMKT kit.

Dimensions:

Unit: mm

Front   Side   Back   Top   Bottom

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