4 Port Industrial Ethernet Switch and Extender

EIR-EXTEND-4

PRODUCT 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
- Port compatible with EIS-EXTEND, EIR-EXTEND, EIRM-EXTEND-x, EIRP-EXTEND

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 75° C, it has been tested for functional operation up to 85° 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	ETHERNET PORTS
EIR-EXTEND-4	DIN Rail Mount Ethernet Extender and switch

ACCESSORIES

MDR-40-24 - DIN Rail Power supply 24VDC 40 Watt
C5UMB3FBL - 3 ft. (1 M) - Blue - Category 5e UTP Patch Cord

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	0.8 kg (1.76 lbs)

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

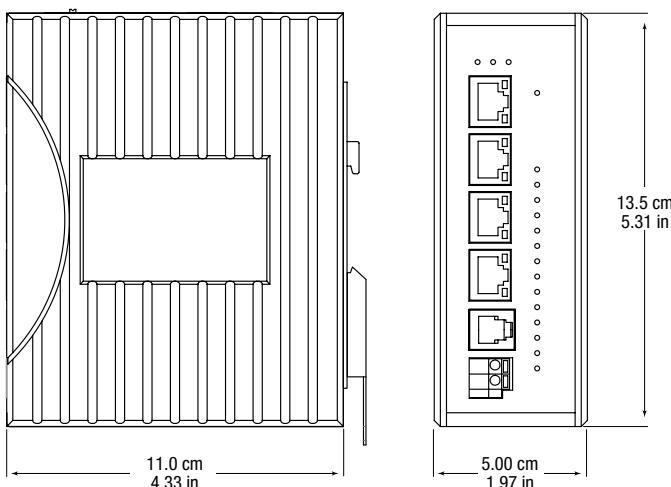| EXTENDER INTERFACE	
Port	One RJ-11 or Terminal Block
Speed	Up to 50 Mbps
Distance	Up to 6,232 ft. (1.9 km)
Cable	24 AWG Copper Pair (0.5mm diameter, 1 pair wire) or larger, 100 Ohm Impedance

ENVIRONMENT	
Operating Temperature	-40 to 75° C (-40 to 167°F) Tested to 85° C
Storage Temperature	-40 to 85° C
Operating Humidity	5% to 95% Non-condensing

LEDS CHART			
	LED	Speed	Distance
1	Green	1 Mbps	6,232m (1.9 km)
	Amber	3 Mbps	5,904m (1.8 km)
2	Green	5 Mbps	5,249m (1.6 km)
	Amber	10 Mbps	4,593m (1.4 km)
3	Green	15 Mbps	3,936m (1.2 km)
	Amber	20 Mbps	3,280m (1.0 km)
4	Green	25 Mbps	2,624m (0.8 km)
	Amber	30 Mbps	2,296m (0.7 km)
5	Green	40 Mbps	1,968m (0.6 km)
	Amber	50 Mbps	984m (0.3 km)

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

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

Installation:
• DIN Rail (35mm) mount, Panel mount, or Rack mount with optional kit.

MECHANICAL DIAGRAM

13.5 cm
5.31 in

11.0 cm
4.33 in

5.00 cm
1.97 in

11.0 cm
4.33 in