

# Industrial PoE Ethernet Extender

EIRP-EXTEND



## PRODUCT FEATURES

- IEEE802.3at 30W PoE + /PSE power for last mile applications
- 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 24 or 48 VDC Power Inputs
- Wide operating temperature
- Extend Ethernet up to 6232 ft. (1.9 km) over standard copper wires
- Ethernet port: PoE Plus + 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 models EIS-EXTEND, EIR-EXTEND-x, EIRM-EXTEND-x

Extending Ethernet to allow the PoE+ port to reach IP cameras, IP phones, and Ethernet connected control devices is simple and reliable with B&B Electronics' Ethernet Extenders. The EIRP series extenders offer built-in PoE+ technology which allows the end device, such as an IP camera, to be powered directly from the extended Ethernet port. 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                               |
|--------------|---|
| EIRP-EXTEND  | PoE Plus DIN Rail Mount Ethernet Extender |

## ACCESSORIES

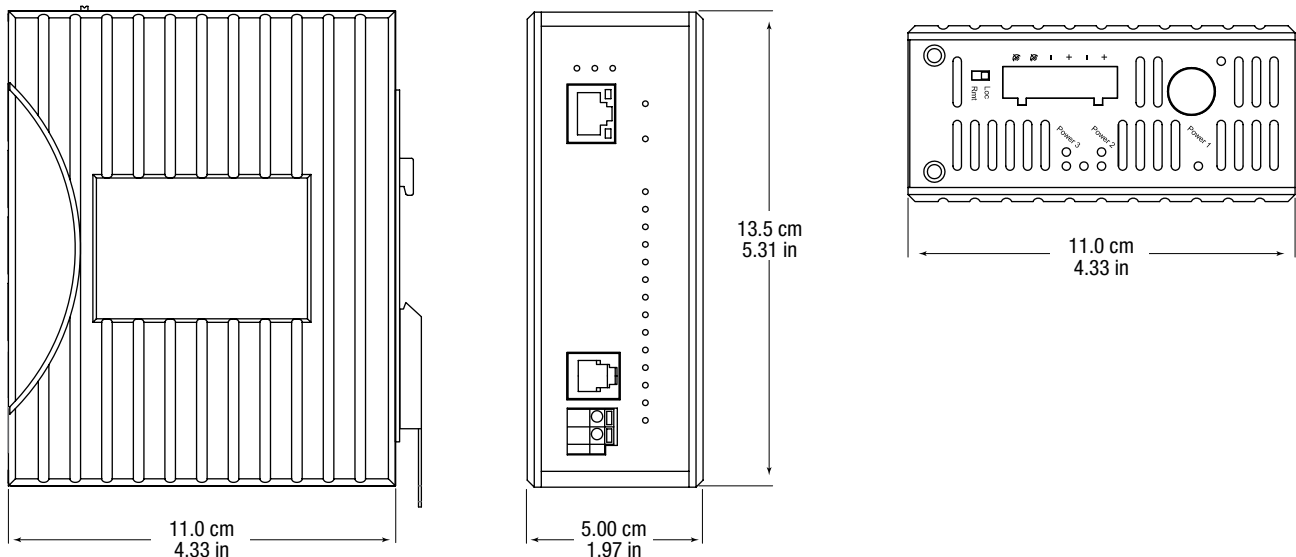
PS12VDC3P - Hardened AC Power Supply, 12VDC, 36W, 3A, 90-264VAC input, DC jack

MDR-20-24 - DIN rail mount power supply 24VDC, 1.0 A output power

MDR-40-48 - DIN rail mount power supply 48VDC, 0.83 A output power

C5UMB3FBG - 3 ft. (1 M) - Beige - Category 5e UTP Patch Cord

## MECHANICAL DIAGRAM



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## SPECIFICATIONS

| TECHNOLOGY            |   |
|-----------------------|---|
| Standards:            | 802.3 10BaseT<br>802.3u 100BaseTx<br>802.3x<br>Ethernet over VDSL               |
| Protocol              | Transparent to higher level<br>Protocols  |
| Processing            | Half-duplex: back pressure<br>Full-duplex: 802.3x                               |
| POWER                 |   |
| Input Voltage         | 48 VDC – Power Jack<br>24 - 48 VDC Terminal Block                               |
| Power Consumption     | 38.4 W Max, 0.8A@48VDC  |
| MECHANICAL            |   |
| Case                  | DIN Mount IP30 Aluminum   |
| Dimensions            | 50 mm (W) x 110 mm (D) x 135 mm (H)<br>1.97" (W) x 4.33" (D) x 5.31" (H)        |
| Weight                | 0.8 kg (1.76 lbs)   |
| ETHERNET INTERFACE    |   |
| Ports                 | PoE RJ-45, 10/100BaseTX<br>Full/Half Duplex<br>Auto-Negotiation<br>Auto-MDI/MDX |
| PoE Plus              | Complies with IEEE802.3af / 802.3at standard                                    |
| Speed                 | 10/100 Mbps   |
| Distance              | 320 ft. (100 m)   |
| Cable                 | 100Base-TX UTPCAT 5 (4 pair)  |
| 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)<br>or larger 100 Ohm impedance |
| ENVIRONMENT           |   |
| Operating Temperature | -40 to 75° C<br>Tested to 85° C   |
| Storage Temperature   | -40 to 85° C  |
| Operating Humidity    | 5% to 95% Non-condensing  |

## LED CHART

| LED | Color | 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)  |

## REGULATORY APPROVALS

|                               |   |
|-------------------------------|---|
| ISO Safety                    | Manufactured in an ISO9001 facility<br>UL508  |
| EMI                           | <ul style="list-style-type: none"> <li>FCC Part 15, Class A</li> <li>EN61000-6-4                             <ul style="list-style-type: none"> <li>EN55022</li> <li>EN61000-3-2</li> <li>EN61000-3-3</li> </ul> </li> <li>EN61000-6-2                             <ul style="list-style-type: none"> <li>EN61000-4-2 (ESD Standards)                                     <ul style="list-style-type: none"> <li>Contact: + / - 4KV; Criteria B</li> <li>Air: + / - 8KV; Criteria B</li> </ul> </li> <li>EN61000-4-3 (Radiated RFI Standards)                                     <ul style="list-style-type: none"> <li>10V/m, 80 to 1000MHz; 80% AM Criteria A</li> </ul> </li> <li>EN61000-4-4 (Burst Standards)                                     <ul style="list-style-type: none"> <li>Signal Ports: + / - 4KV; Criteria B</li> <li>D.C. Power Ports: + / - 4KV; Criteria B</li> </ul> </li> <li>EN61000-4-5 (Surge Standards)                                     <ul style="list-style-type: none"> <li>Signal Ports: + / - 1KV; Line-to-Line; Criteria B</li> <li>D.C. Power Ports: + / - 0.5KV; Line-to-earth; Criteria B</li> </ul> </li> <li>EN61000-4-6 (Induced RFI Standards)                                     <ul style="list-style-type: none"> <li>Signal Ports: 10Vrms @ 0.15 - 80MHz; 80% AM Criteria A</li> <li>D.C. Power Ports: 10Vrms @ 0.15 - 80MHz; 80% AM Criteria A</li> </ul> </li> <li>EN61000-4-8 (Magnetic Field Standards)                                     <ul style="list-style-type: none"> <li>30A/m @ 50, 60Hz; Criteria A</li> </ul> </li> </ul> </li> </ul> |
| EMS                           | <ul style="list-style-type: none"> <li>EN61000-4-2 (ESD Standards)                             <ul style="list-style-type: none"> <li>Contact: + / - 4KV; Criteria B</li> <li>Air: + / - 8KV; Criteria B</li> </ul> </li> <li>EN61000-4-3 (Radiated RFI Standards)                             <ul style="list-style-type: none"> <li>10V/m, 80 to 1000MHz; 80% AM Criteria A</li> </ul> </li> <li>EN61000-4-4 (Burst Standards)                             <ul style="list-style-type: none"> <li>Signal Ports: + / - 4KV; Criteria B</li> <li>D.C. Power Ports: + / - 4KV; Criteria B</li> </ul> </li> <li>EN61000-4-5 (Surge Standards)                             <ul style="list-style-type: none"> <li>Signal Ports: + / - 1KV; Line-to-Line; Criteria B</li> <li>D.C. Power Ports: + / - 0.5KV; Line-to-earth; Criteria B</li> </ul> </li> <li>EN61000-4-6 (Induced RFI Standards)                             <ul style="list-style-type: none"> <li>Signal Ports: 10Vrms @ 0.15 - 80MHz; 80% AM Criteria A</li> <li>D.C. Power Ports: 10Vrms @ 0.15 - 80MHz; 80% AM Criteria A</li> </ul> </li> <li>EN61000-4-8 (Magnetic Field Standards)                             <ul style="list-style-type: none"> <li>30A/m @ 50, 60Hz; Criteria A</li> </ul> </li> </ul>  |
| Environmental Test Compliance | <ul style="list-style-type: none"> <li>IEC60068-2-6 Fc (Vibration Resistance)                             <ul style="list-style-type: none"> <li>5g @ 10 - 150Hz, Amplitude 0.35mm (Operation/Storage/Transport)</li> </ul> </li> <li>IEC60068-2-27 Ea (Shock)                             <ul style="list-style-type: none"> <li>25g @ 11ms (Half-Sine Shock Pulse; Operation)</li> <li>50g @ 11ms (Half-Sine Shock Pulse; Storage/Transport)</li> </ul> </li> <li>IEC60068-2-32 Ed (Free Fall)                             <ul style="list-style-type: none"> <li>1M (3.281ft.)</li> </ul> </li> </ul>  |

## Installation:

- DIN Rail (35mm) Panel Mount, Rack Mounting with optional kit.