

# ED3344 Series

Hardened 10/100/BASE-TX M12 Ethernet Extender over Coaxial Cable



## Overview

The ED3344 Series Ethernet Extender enables the extension of Ethernet connectivity over existing coaxial cable allowing legacy infrastructure to be leveraged for IP networks and extending the Ethernet distance limitations of 100 meters.

Upgrading an existing legacy control or surveillance system to a new IP-based system is a complicated task, especially when existing cable infrastructure is old coaxial cable. EtherWAN's ED3344 Series provides Ethernet connection and extension over these existing coaxial cables minimizing the expense of pulling new cable infrastructure.

The ED3344 Series is built with hardened specifications, providing wide temperature operation range from -40°C to 75°C to overcome severe outdoor environments. Featured with a M12 Ethernet connector, The ED3344 provides high mechanical strength and suitable for railway applications. Incorporating VDSL technology, the ED3344's BNC extender ports provide long distance transmission with 75Mbps rate at 200 meters, or 1Mbps at 2600 meters; 10 speed LED indicators in the front panel provide easy lookup for the connection speed

## Spotlight

### • UL508 Certification

- Specific design for industrial communication applications with UL508 safety certification

### • EN50121-4 and EN50155 Certification

- Specific design for railway environment application

### • Wide Operating Temperature

- -40°C to 75°C wide operating temperature range design is suitable for installation in outdoor cabinet

### • M12 Ethernet Connector

- M12 Ethernet port provides strong mechanical strength

# Hardware Specifications

## Technology

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### Standards

- IEEE802.3 10BASE-T
- IEEE802.3u 100BASE-TX
- IEEE802.3x full duplex and flow control

### Processing Type

- Half-duplex back-pressure and IEEE802.3x Full-duplex flow control
- Auto Negotiation
- Auto-MDI/MDIX

## Power

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### Input Voltage

- 12 to 48VDC (Terminal Block and Latched DC Jack)

### Power Consumption

- 7.2W Max. 0.6A @ 12VDC, 0.15A @ 48VDC

### Protection

- Over current protection
- Reverse polarity protection

## Mechanical

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### Casing

- Aluminum case
- IP30

### Dimensions

- 50mm (W) x 110mm (D) x 135mm (H)  
(1.97" (W) x 4.33" (D) x 5.31" (H))

### Weight

- 0.8Kg (1.76lbs.)

### Installation

- DIN-Rail (Top hat type 35mm), Panel, or Rack mounting

## Interface

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### Ethernet Port

- Port: One M12, 4Pin, D-type port
- Speed: 10/100Mbps
- Distance: 100meters (328ft.)
- Cable: 10BASE-T: UTP CAT. 3, 4, 5 (2-pair wire)  
100BASE-TX: UTP CAT. 5 (4-pair wire)

### Ethernet Extender Port

- One 50Ω BNC Port (with F-type connector)
- Speed: 1/5/10/20/30/40/50/60/70/75Mbps
- Distance: 2600 meters (8,530ft.)
- Cable: Coaxial Cable (5C2V/RG6AU)

### DIP-Switch

- One DIP Switch: Local (CO) or Remote (CPE)

### Console Port

- Port: One DB9 RS-232 port

### LED Indicators

- Per Unit: Power
- Per 10/100TX Port: Link/Activity, Full-duplex
- Line: Error, Link, Local, Remote

## Speed / Distance Reference

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Speed	Distance
1-5Mbps	2,600M(8,530ft.)
6-10Mbps	2,400M(7,874ft.)
11-16Mbps	2,000M(6,561ft.)
17-20Mbps	1,800M(5,905ft.)
21-29Mbps	1,600M(5,249ft.)
30-43Mbps	1,400M(4,593ft.)
44-54Mbps	1,200M(3,937ft.)
55-63Mbps	1,000M(3,280ft.)
64-74Mbps	600M(1,968ft.)
75-85Mbps	200M(656ft.)

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

## Environment

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### Operating Temperature

- -40°C to 75°C (-40°F to 167°F)  
Tested @ -40°C to 85°C (-40°F to 185°F)

### Storage Temperature

- -40°C to 85°C (-40°F to 185°F)

### Ambient Relative Humidity

- 5% to 95% (non-condensing)

## Regulatory Approvals

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### ISO

- Manufactured in an ISO9001 facility

## Safety

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### UL508

## EMI

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### FCC Part 15B, Class A

### VCCI, Class A

### EN61000-6-4, EN55022, EN61000-3-2 and EN61000-3-3

## EMS

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### EM50121-3-2

- EN61000-6-2
- EN61000-4-2 (ESD Standards)
- EN61000-4-3 (Radiated RFI Standards)
- EN61000-4-4 (Burst Standards)
- EN61000-4-5 (Surge Standards)
- EN61000-4-6 (Induced RFI Standards)
- EN61000-4-8 (Magnetic Field Standards)

## Environmental Test Compliance

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### EN61373 (Vibration and Shock)

### IEC60068-2-6 Fc (Vibration Resistance)

### IEC60068-2-27 Ea (Shock)

### FED STD 101C Method 5007.1 (Free fall w/ package)

## Industrial Compliance

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### EN50155 and EN50121-4



## Ordering Information

### Model

<b>ED3344-00B</b>	Hardened 10/100Base-TX M12 Ethernet Extender over Coaxial Cable
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### Optional Accessories

<b>KP-AA96-480</b>	Panel mounting kit
<b>MDR-40-48</b>	40W/0.83A DIN-Rail 48VDC Industrial Power Supply (for Terminal Block)
<b>DR-30-24</b>	30W/1.5A DIN-Rail 24VDC Industrial Power Supply (for Terminal Block)
<b>DR-60-24</b>	60W/2.5A DIN-Rail 24VDC Industrial Power Supply (for Terminal Block)
<b>DR-75-24</b>	75W/3.2A DIN-Rail 24VDC Industrial Power Supply (for Terminal Block)
<b>DR-120-24</b>	120W/5A DIN-Rail 24VDC Industrial Power Supply (for Terminal Block)
<b>41-136046-X</b>	36W/3A 12VDC hardened power adapter with open wire in aluminum housing (for Terminal Block) (X)=1: US, 2: EU, 3: UK, 4: AU, 5: JP, 6: SA
<b>41-136044-X</b>	36W/3A 12VDC hardened power adapter with latched DC jack in aluminum housing (for DC Jack) (X)=1: US, 2: EU, 3: UK, 4: AU, 5: JP, 6: SA