EKI-1751I

Features

- Media and protocol converter 3 x 10/100BASE-T ports to VDSL
- 2 x RJ45 Ethernet ports
- 1 x M12 Ethernet port
- Operates over existing CAT3 cabling or coaxial (combo port)
- Supports VDSL, Band Plans 997 and 998 (symmetrical and asymmetrical) transmission as per the ITU-T G.993.2 standard
- Extended operating temperature of -40 ~ 75°C
- Provides overcurrent and reverse-polarity protection
- IP30-rated enclosure

Introduction

The EKI-1751I is an industrial long reach Ethernet extender that utilizes existing copper cabling infrastructure (twisted pair or coaxial cable) to extend Ethernet to up to 2000 m over VDSL2. The EKI-1751I adds an M12 Ethernet connector as well as 2 RJ45 Ethernet connectors to offer the most flexibility possible for your project needs. The M12 connector adds the option to deploy these user-friendly plug and play devices in secure environments where reliability is the utmost priority.

The EKI-1751I is recommended to be used in pairs over a single pair of telephone-grade unshielded twisted pair (UTP) wire or a coaxial cable. EKI-1751I uses IP30 aluminum enclosures, ideal for industrial applications capable of handling wide range of temperatures -40 to +75 °C. A convenient dip switch provides easier configurability for to meet many deployment needs, giving you immediate control over VDSL2 band plans (asymmetric/symmetric) and the signal-to-noise ratio (6 or 9 dB). The LEDs also offer a quick view of the device status as well as diagnostics functions.

Specifications

Interface

- **I/O Port**
  I/O Port 2 x 10/100BASE-T/TX RJ-45
  1 x 10/100BASE-T/TX M12
  1 x Port VDSL2 extender combo terminal block or BNC
- **Power Connector** 6-pin screw terminal block

Dip Switch

- **Pin 1** Selectable band plan (Symmetric or Asymmetric)
- **Pin 2** Selectable target SNR margin (6 or 9dB)
- **Pin 3** Selectable CO or RT

Physical

- **Enclosure** Metal shell
- **Protection Class** IP30
- **Installation** DIN rail
- **Dimensions (W x H x D)** 62.5 x 135 x 106 mm (2.46" x 5.32" x 4.17")

LED Display

- **System LED** PWR1, PWR2
- **Port LED** Link, speed, activity

Environment

- **Operating Temperature** -40 ~ 75°C (-40 ~ 167°F)
- **Storage Temperature** -40 ~ 85°C (-40 ~ 185°F)
- **Ambient Relative Humidity** 5 ~ 95% (non-condensing)
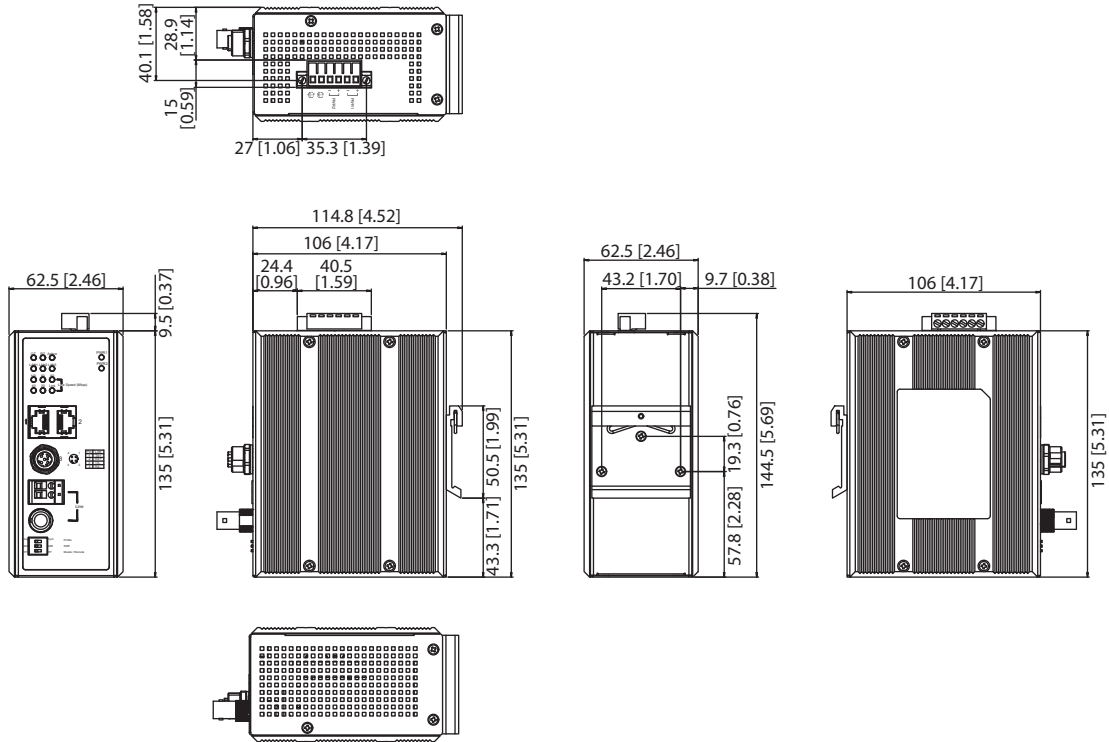- **Humidity** 5 ~ 95% (non-condensing)

Power

- **Power Input** 12 ~ 48 V_{DC}, redundant dual power input
- **Power Consumption** 5 W

Certification

- **EMI** CE, FCC Class A
- **Safety** UL60950
- **EMC** EN 61000-4-2
  EN 61000-4-3
  EN 61000-4-4
  EN 61000-4-5
  EN 61000-4-6
  EN 61000-4-8
  EN 61000-4-11
- **Shock** IEC 60068-2-27
- **Freefall** IEC 60068-2-32
- **Vibration** IEC 60068-2-6
- **Patent** http://www.advantech.com/legal/patent

Dimensions

Unit: mm [in.]

40.1 [1.58]
28.9 [1.14]
15 [0.59]
27 [1.06] 35.3 [1.39]

62.5 [2.46]
9.5 [0.37]
135 [5.31]

114.8 [4.52]
106 [4.17]
24.4 [0.96] 40.5 [1.59]
50.5 [1.99]
135 [5.31]
43.3 [1.71]

62.5 [2.46]
43.2 [1.70] 9.7 [0.38]
19.3 [0.76]
144.5 [5.69]
57.8 [2.28]

106 [4.17]
135 [5.31]

Panel Cutout Dimensions: 62.5 x 135 x 106 mm (2.46" x 5.32" x 4.17")

Ordering Information

▪ **EKI-1751I-AE**   Industrial VDSL2 Ethernet Extender, M12