

## I/A Series Hardware Fieldbus Isolator, FBI10E



The FBI10E Fieldbus Isolator allows the Control Processor 60 (CP60) to communicate with Y-Module form factor Fieldbus Modules (FBM01, FBM02, and so forth). It converts between 10 Mbps Ethernet Fieldbus signals used by the CP60 and HDLC signals used by the Y-Module form factor FBMs.

The FBI10E supports up to 24 FBMs, providing galvanic isolation between the Ethernet Fieldbus and the FBMs.

FBI10Es have a half-size Y-Module form factor, and install directly into a Field Enclosure 4, or into a 1x8 FBM or 1x12 FBM mounting structure. They can also be installed indirectly, via a Y-adapter, in Industrial Enclosures 16 and 32, the Industrial Metal Enclosures, or Field Enclosure 8.

Light-emitting diodes (LEDs) incorporated into the front of the FBI10Es provide visual status indications of their respective functions.

For redundant configurations, FBI10Es are used in pairs, one for the “A” and one for the “B” portion of the redundant Fieldbus. Typical implementation of the FBI10E is shown in Figure 1, and installation details are shown in Figure 2.



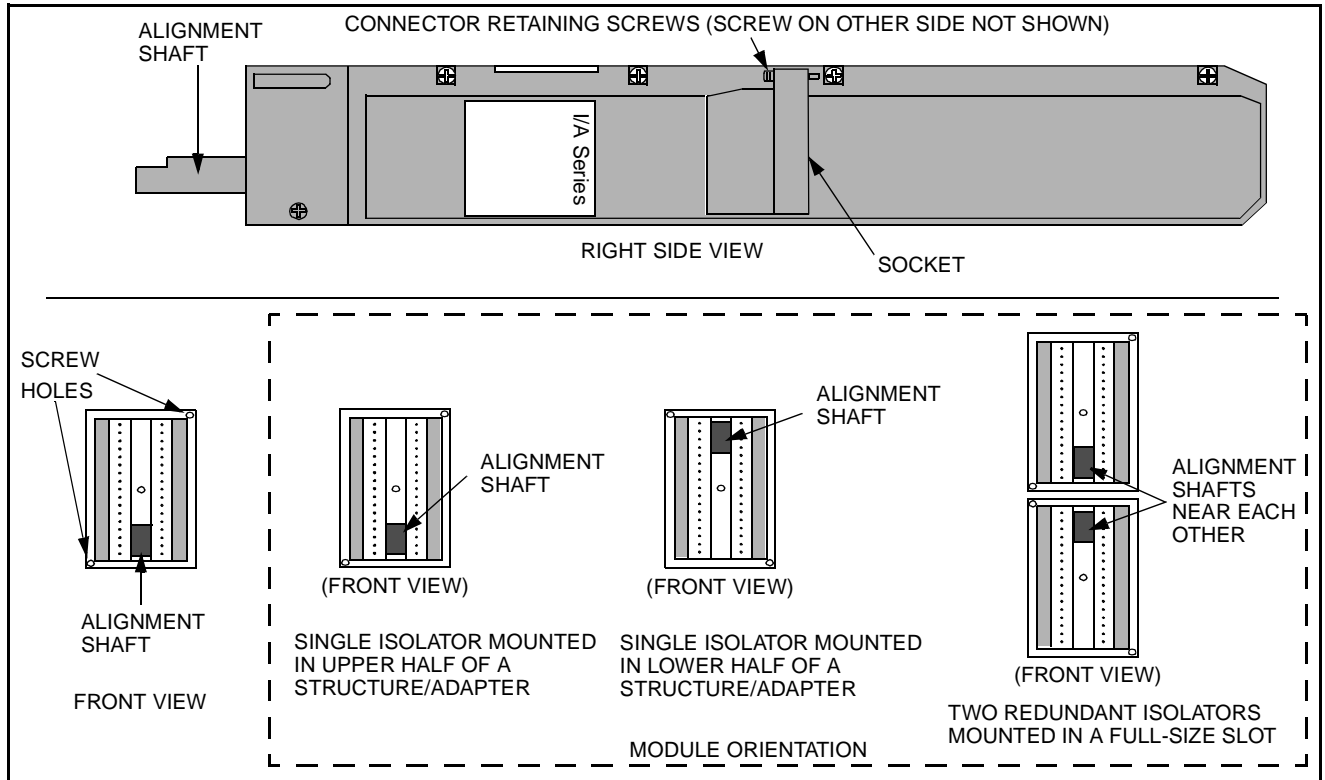


Figure 2. FBI10E, Installation Details

**FUNCTIONAL SPECIFICATIONS**

**Indicators (mounted on termination connector assembly)**

**NETWORK ACTIVITY INDICATORS**

*CP60 to FBI10E*

Active (Amber)

Inactive (Off)

*FBI10E to CP60*

Active (Amber)

Inactive (Off)

*FBI10E to FBMs (FBM01, FBM02, etc.)*

Active (Amber)

Inactive (Off)

*FBMs (FBM01, FBM02, etc.) to FBI10E*

Active (Amber)

Inactive (Off)

**INTERNAL CLOCK INDICATORS**

Active (Green)

Inactive (Red)

**Input Power**

**VOLTAGE**

*Normal Operating Range*

26 V dc to 42 V dc

**OPERATING CURRENT AT 26 V dc**

350 mA, maximum

**POWER DISSIPATION AT 42 V dc**

7.5 W, maximum

**Battery Backup Power**

**VOLTAGE**

*Typical*

18 V dc

*Minimum*

15 V dc

*Maximum under Battery Operation*

21 V dc

**ENVIRONMENTAL SPECIFICATIONS(a)**

**Operating**

TEMPERATURE

0 to 60°C (32 to 140°F)

RELATIVE HUMIDITY

5 to 95% (noncondensing)

ALTITUDE

-300 to +3,000 m (-1,000 to +10,000 ft)

**Storage**

TEMPERATURE

-40 to +85°C (-40 to +192°F)

RELATIVE HUMIDITY

5 to 95% (noncondensing)

ALTITUDE

-300 to +12,000 m (-1,000 to +40,000 ft)

**Contamination**

Class G3 (Harsh) as defined in ISA Standard, S71.04

**Mechanical Vibration**

0.5 g at 5 to 500 Hz

**Regulatory Compliance**

In compliance with European EMC directive 89/336/EEC.

(a) The environmental limits of this module may be enhanced by the type of enclosure containing the module. (Refer to the applicable Product Specification Sheet (PSS) which describes the specific type of enclosure that is to be used.)

**PHYSICAL SPECIFICATIONS**

**Mounting**

WITH Y-ADAPTER

Installable in Industrial Enclosures 16 and 32, IEMFA/IEMFR, FEM 8, and Field Enclosure 8

WITHOUT Y-ADAPTER

Installable only in a 1x8, 1x8 FBM or 1x12 FBM mounting structure

**Dimensions**

HEIGHT

2.63 in (69 mm)

WIDTH

1.4 in (36 mm)

DEPTH

17.9 in (413 mm)

**Mass**

0.3 kg (0.7 lb)

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