

I/A Series® Hardware

Output Bypass Station (4 to 20 mA)



The I/A Series 4 to 20 mA dc Output Bypass Station is a solid state, manually adjustable current source packaged in a portable enclosure. It can be used as a substitute current source for the output(s) of Fieldbus Modules FBM04, FBM06, FBM22, FBM39, and FBM44. The Bypass Station has four independent current sources, each with its own output adjustment, balancing meter, output meter, and mode switch. It has a self contained power supply and comes equipped with an ac power cable and two dual output cables for connection to the compatible FBM(s).

The Output Bypass Station enables the removal of FBM(s) from an I/A Series enclosure without interrupting the current source to the final actuator (see Note). Insertion into the current loop(s) is easily achieved by plugging the dual output - cable(s) into

the appropriate bypass jack(s) on the FBM termination assembly. Balancing, switching, and manual output adjustments are accomplished with the controls conveniently mounted on the front of the Bypass Station.

FEATURES

- Four isolated 4 to 20 mA dc outputs
- Portability w/carrying handle
- Input power fused and line-voltage switchable
- Internal dc power supply
- Bumpless transfer design (see Note)
- Plug compatible connections
- Color coded channels and cables

FUNCTIONAL SPECIFICATIONS

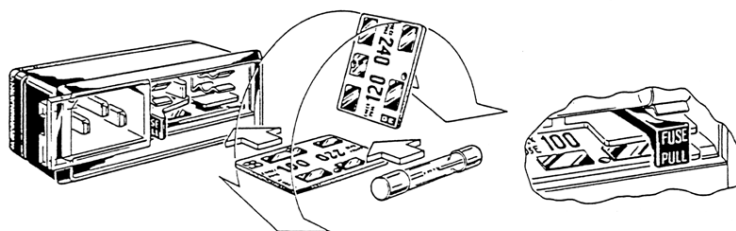


Figure 1. Fuse Connector

Power Requirements

120/220/240 V ac + 10% -13%, 47-63

FUSES

1/2A (100/120 V ac) 1/4A (220/240 V ac)

Voltage Selection and Fuse Connector Filter and Fuse Connector is located on rear of bypass station. The connector provides an internationally approved connector, fuseholder and means to change transformer primary connections with a voltage sector card (Figure 1).

Input Resistance50 Ω **Output Signal**

3 to 22 mA dc (a)

Total Outputs

4 Isolated Channels

Output Load600 Ω Maximum**Input Signal**

4 to 20 mA dc from Fieldbus Module

Bypass Connections

Independent Plugs (see Figure 2)

Total Inputs

Isolated Channels

NOTE

When the 4 to 20 mA output is used to control an analog device, transfer is virtually bumpless because of the device's inherent response time. If a digital or high speed sampling device is sensing the output, a bump may be detected (1) when inserting and removing the plug of the backup unit into and out of the jack of the output card or module, and (2) when the mode switch is positioned between N (normal) and S (standby).

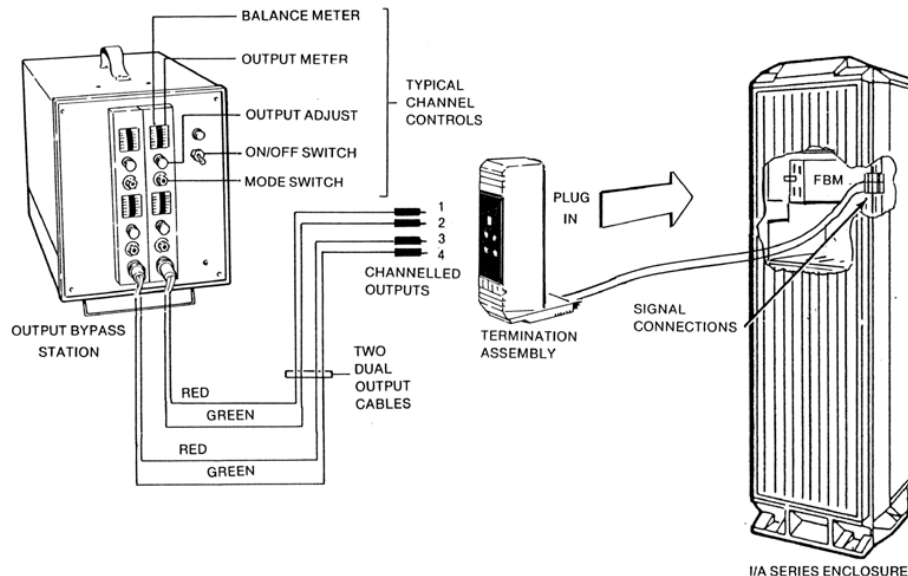


Figure 2. Bypass Connections

ENVIRONMENTAL SPECIFICATIONS

Operating

TEMPERATURE

5 to 50°C (40 to 120°F)

RELATIVE HUMIDITY

5 to 95% (Non-condensing)

ALTITUDE

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

Storage

TEMPERATURE

-40 to +70°C (-40 to +160°F)

RELATIVE HUMIDITY

5 to 95% (Non-condensing)

ALTITUDE

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

PHYSICAL SPECIFICATIONS

Controls

Power On/Off switch, mode selector switches (4), and output adjustments (4).

Weight

5.7 kg (12.5 lbs)

Displays

Power On indicator, balance meter (4), and output meter (4).

Color

Gray

Cables

Two coiled, 182.9 cm (6.0 ft) retracted, 609.6 cm (20 ft) extended.

Two channels per cable.

REFERENCE DOCUMENTS

PSS 21H-2B7 B4 (FBM04)

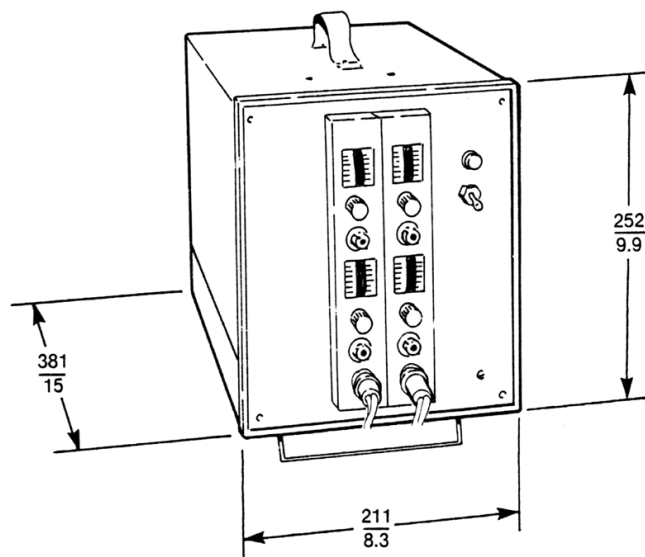
PSS 21H-2C1 B4 (FBM06)

PSS 21H-2C4 B4 (FBM39)

PSS 21H-2D4 B4 (FBM44)

PSS 21H-2E1 B4 (FBM22)

DIMENSIONS-NOMINAL



The Foxboro Company

33 Commercial Street
Foxboro, Massachusetts 02035-2099

United States of America

<http://www.foxboro.com>

Inside U.S.: 1-508-543-8750 or 1-888-FOXBORO (1-888-369-2676)

Outside U.S.: Contact your local Foxboro Representative.

Foxboro and I/A Series are registered trademarks of The Foxboro Company.

Copyright 1991-1994 by The Foxboro Company
All rights reserved