JH5800

POTENTIOMETER INPUT DIN-RAIL TRANSMITTER

FEATURES

- Potentiometers from 100 ohms to 100Kohms
- Offset and Expanded Ranges Available
- Input/Output Isolation Standard
- High Speed Option HS Available
- Quick-Check Red/Green Output LEDs
- Unpluggable Terminal Strip
- AC or DC Power Options

DESCRIPTION

The Model JH5800 Potentiometer Input Transmitter provides an isolated DC output proportional to the position of a potentiometer or slidewire wiper. The input range may be 0-100% or any 10% or wider portion of the wiper's travel. Calibration is unaffected by the potentiometer's end-to-end resistance.

The JH5800 is a fixed-range device, precisely calibrated to the specified input and output ranges at the factory. Its one-inch-wide case snaps onto DIN rail and its terminals unplug for ease of replacement. Standard transmitters include filtering to smooth measurements and minimize noise pickup.

When fast response is needed, Option HS speeds the response time to approximately 1 millisecond. Other response speeds are readily available on special order

Other options include AC or DC power and reverse-acting transmitter (decreasing output with increasing input).

HOW TO ORDER

Model Number: JH5800

Power:
Add suffix A (Model JH5800A) for AC power, D for DC power. Specify 115Vac, 230Vac, 12Vdc or 24Vdc.

Input Potentiometer:
It is *not* necessary to specify the potentiometer's resistance. Just make sure it is not less than 100 ohms nor more than 100Kohms.

Input Range:
Specify 0/100%, or any 10% or wider portion of the travel (for example, 60/70%).

Output Range:
Specify any DC voltage or current range allowed by the "Output Capabilities" spec (see back).

Reverse-Acting Transmitter:
Decreasing output with increasing input. Change last digit of the model number to 1 (for example, JH5801A).

Loop-Powered Output:
4/20mA "current sink" output stage for connection to devices whose inputs provide 24Vdc loop excitation. Change the last digit of the model number to 2 (for example, JH5802A).

High Speed Response:
Approximately 1 msec. (See Specifications). Specify Option HS

Urethane Coating:
Specify Option U.

INSTALLATION

Model JH5800 snaps onto 35mm DIN rail. Connections are made to the front-panel terminals. The terminal strip unplugs to facilitate calibrating or replacing the transmitter.

CONNECTIONS

Connections to the 8 terminals (top to bottom) are:

1:Counterclockwise (0% travel).

2: Wiper.

3:Clockwise (100% travel).

4:No connection.

5: Output plus.

6: Output minus.

7: Power (AC or, if DC power option, DC plus).

8: Power (AC or, if DC power option, DC minus).

QUICK-CHECK LEDS

Red-green Quick-Check LEDs give a quick indication of the relative output. Red is brighter at the low end, green at high, while at mid-scale both are approximately equal. Red-only indicates offscale low while green-only indicates offscale high.

SPECIFICATIONS

Input Potentiometer:
May be any resistance between 100 ohms and 100Kohms. Calibration is not affected by the potentiometer's resistance.

Input Capabilities:
0 to 100% travel or any 10% or wider portion of the travel (for example, 45 to 55% travel).

Voltage Output Capabilities:
1 volt minimum output span, -10 to +15V absolute limit. Offset ranges are allowed. Maximum output load, 10mA (1Kohm at 10V output).

Current Output Capabilities:
1mA minimum output span, 0 to +25mA absolute limit. Positive offsets are allowed, negative outputs are not. Output drive capability, 24V (1,200 ohms max. at 20mA output).

Accuracy:
+/-0.1% of span.

Adjustability:
Zero and span each are adjustable approx. +/-15% of span. When ordered for 0-100% travel, the adjustments are set up so as to allow calibration to any 75% or wider portion of the travel (for example, 0-75% or 25-100%).

Linearity:
+/-0.05% of span or better.

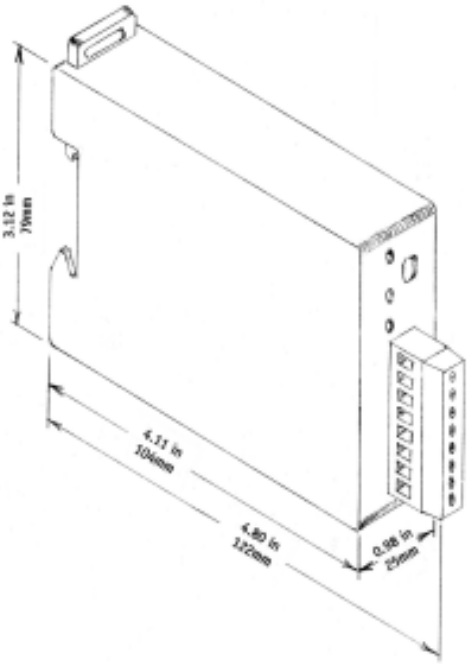
Response Time:
Standard: Under 100 milliseconds. Option HS: Approx. 95% complete in 1msec. Frequency response 3dB down at approx. 600 Hz. Others available on special order.

Isolation:
3-way (Power/ Input/Output, 1,500Vac rms (2,100V peak)

Operating Temperature:
-10 to +60^{O} (14 to 140^{O}F).

Temperature Stability:
+/-0.02% of span per ^{O}C, or better.

Power Requirements:
AC, 115 or 230Vrms, 50/60Hz, 2.5V-A. DC, 12 or 24V, 2.5W.



JH TECHNOLOGY, INC.
SARASOTA, FL USA
(800) 808-0300
www.jhtechnology.com
e-mail: jhtek@jhtechnology.com