

FEATURES

- For 100 ohm Platinum RTDs – Linearized
- Three-Wire Lead Resistance Compensation
- Low-Drift Input Amplifier
- Fits Standard Connection Heads
- -40 to +80 Degree C Operation
- Quick-Check Output LED
- DIN Rail Mounting Available



DESCRIPTION

The Model JH240 2-wire transmitter provides a 4/20mA current loop output proportional to temperature as measured by a 100 ohm platinum RTD (resistance thermometer). A fixed-range device, it is precisely calibrated to your specified input range at the factory. (For a rangeable 2-wire RTD transmitter see Model JH245.) RTD linearization is provided. Three-wire input circuitry eliminates errors due to lead wire resistance. Conformal coating protects the circuitry against condensation and corrosion in industrial atmospheres.

The JH240 is a loop-powered device. Connected in series between a 24Vdc supply and readout instruments, it receives its power from the 4/20mA output loop. A built-in LED indicates loop current: dim at 4mA, bright at 20. The JH240 does not provide input/output isolation.

Its small 1-3/4 inch diameter allows the transmitter to fit most standard thermocouple-type connection heads. It also may be surface mounted. A DIN rail mounting clip option is available.

HOW TO ORDER

Model Number: JH240.

Input Range:

Specify any range allowed by the "Input Capabilities" spec (see back).

RTD Type and Curve:

100 ohm platinum RTD only. Standard DIN/IEC calibration is normally used. If a different platinum RTD curve is needed, please specify on your order.

Output Range:

(Always 4/20mA dc.)

Power:

(Always dc loop powered.)

DIN-Rail Mounting:

Change model number to Model JH240-DIN. (See "Installation and Connections," below.)

Note: Urethane coating is standard.

OEM PRODUCTS

JH Technology 2-wire thermocouple and RTD transmitters can be made available with solder-jumper pads for range selection. Contact the factory for details.

INSTALLATION

The 1-3/4 inch diameter JH240 is designed to fit many standard thermocouple-type connection heads. It may also be mounted to any surface using two #8 (or smaller) screws. An optional DIN-rail mounting clip (specify Model JH240-DIN) allows the transmitter to be snapped onto DIN rail. Width is 1-3/4 inches.

CONNECTIONS

Connections are made to the transmitter's terminal strip. Connections are:

"+" Terminal: Output/Power Loop. Receives current from (+) DC supply.

"-" Terminal: Output/Power Loop. Passes on current to the next series loop device, or to the (-) supply.

Terminal A: RTD (opposite end from Terminal C).

Terminal B: RTD compensation (same end of RTD as Terminal C). When connecting to 2-wire RTD, jumper terminals B and C.

Terminal C: RTD.

SPECIFICATIONS

Input Capabilities:

Minimum span 10 deg. C (18 deg. F). Maximum range includes the RTD's full temperature range. Low end of range may be zero degrees, elevated or suppressed.

RTD Type:

100 ohm platinum RTD. Factory calibration is per DIN/IEC standard unless otherwise specified.

Output:

4/20mA, 2-wire (loop-powered) output.

Accuracy:

$\pm 0.1\%$ of span or 0.05 deg C (0.09 deg F), whichever is greater.

Adjustability:

Zero and span each are adjustable approx. $\pm 15\%$ of span.

Response Time:

Under 100 milliseconds.

Operating Temperature:

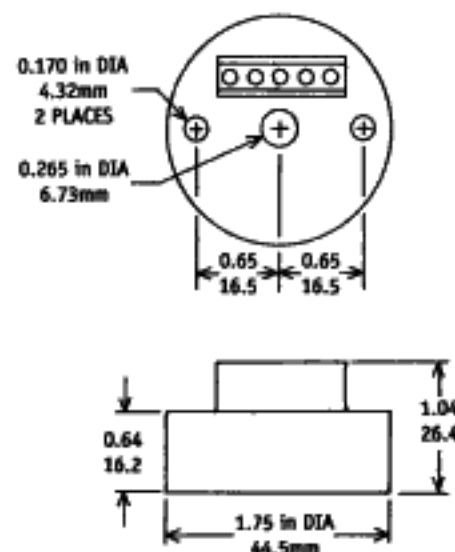
-40 to +80 deg. C (-40 to +176 deg. F).

Temperature Stability:

$\pm (0.02\%$ of span plus 0.005 deg C) per deg. C, or better.

Power Requirements:

DC loop-powered. Requires at least 12Vdc at the transmitter's output terminals. 36Vdc maximum.



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