

### 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 JH245 2-wire transmitter provides a 4/20mA current loop output proportional to temperature as measured by a 100 ohm platinum RTD (resistance thermometer). 16-position Zero and Span switches plus fine-adjust trimpots allow recalibration over a wide range of spans and offsets. 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 JH245 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 JH245 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:** JH245.

**Input Range:**

The JH245 is normally shipped tested but uncalibrated. If you would like us to calibrate it simply specify on your order. We'll do so at no extra charge. Specify any input range allowed by the "Input Capabilities" spec, below. The DIN/IEC curve will be used unless otherwise stated on your order.

**RTD Type and Curve:**

100 ohm platinum. The JH245 may be calibrated to the DIN/IEC

curve or to any other platinum RTD curve by using the appropriate resistance tables.

**Output Range:**

(Always 4/20mAdc.)

**Power:**

(Always dc loop powered.)

**DIN-Rail Mounting:**

Change model number to Model JH245-DIN. (See "Installation and Connections" on back.)

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 JH245 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 JH245-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 of RTD 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:

Span may be set from 10 to 650 deg. C (18 to 1170 deg. F). Zero may be offset from -200 to +400 deg. C (-328 to +752 deg. F).

### RTD Type:

100 ohm platinum RTD. May be field-calibrated using any 100 ohm platinum curve, as long as the appropriate R-versus-T tables are used.

### Output:

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

### Accuracy:

+/-0.1% of span or 0.05 deg. C (0.09 deg. F) if properly calibrated using precision instruments.

### Adjustability:

Sufficient to achieve all specified input ranges.

### Response Time:

Under 100 milliseconds.

### Operating Temperature:

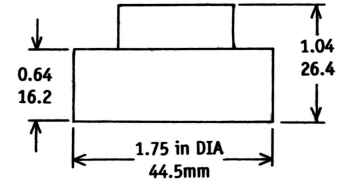
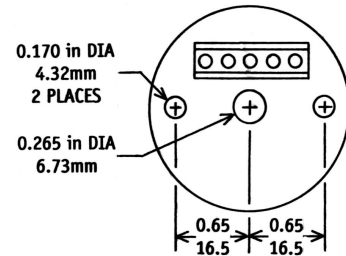
-40 to +80 deg. C (-40 to +176 deg. F).

### Temperature Stability:

+/- (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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