#### 2-WIRE POTENTIOMETER TRANSMITTER

#### **FEATURES**

- Potentiometers from 1 to 100Kohms
- Offset and Expanded Input Ranges Possible
- Fits Standard Connection Heads
- Rugged Design, Conformal-Coated Board
- Quick-Check Output LED
- -40 to +80 Degree C Operation
- DIN Rail Mounting Available



## **DESCRIPTION**

The Model JH250 2-wire transmitter provides a 4/20mA current loop output proportional to the position of a potentiometer or slidewire wiper. A fixed-range device, it is precisely calibrated to your specified input range at the factory. Standard input calibration is 0/100% travel: it may be readjusted or factory-calibrated to any 50% or wider portion of the travel. Conformal coating protects the circuitry against condensation and corrosion in industrial atmospheres.

The JH250 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 JH250 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: JH250.

nor more than 100Kohms.

Note: Urethane coating is standard.

## **Input Range:**

Standard calibration is for 0/100% travel. If you wish, calibration can be factory-set for any 50% or wider input range. Simply specify on your order.

#### **Input Potentiometer:**

It is *not* necessary to specify the potentiometer's resistance. Just make sure it is no less than 1Kohm

## **Output Range:**

(Always 4/20mAdc.)

## Power:

(Always dc loop powered.)

## **DIN-Rail Mounting:**

Change model number to Model JH250-DIN. (See "Installation and Connections" on back.)

# **INSTALLATION**

The 1-3/4 inch diameter JH250 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 JH250-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:** Potentiometer wiper.

**Terminal B:** Potentiometer cw (100% travel).

**Terminal C:** Potentiometer ccw (0% travel).

## **SPECIFICATIONS**

#### **Input Capability:**

0 to 100% travel, or any 50% or wider portion of the travel (for example, 25 to 75% travel).

#### **Input Potentiometer:**

May be any resistance between 1Kohm and 100Kohms. It is not necessary to specify the potentiometer resistance on your order: end-to-end resistance does not affect the calibration.

## **Output:**

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

#### **Accuracy:**

+/-0.1% of span.

## **Adjustability:**

Zero and span provide sufficient adjustability to allow recalibration to any 50% or wider portion of the input potentiometer's travel.

## **Linearity:**

+/-0.05% of span or better.

## **Response Time:**

Under 100 milliseconds.

## **Operating Temperature:**

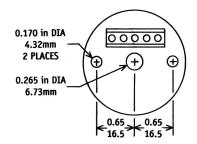
-40 to +80 deg. C (-40 to +176 deg. F).

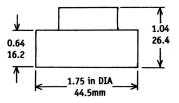
#### **Temperature Stability:**

+/-0.02% of span 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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