

### FEATURES

- Input Spans as low as 0.4mV/V (at 10V excitation)
- Excitation Adjustable from 4 to 12V
- Offset and Nonstandard Ranges Available
- Input/Output Isolation Standard
- Quick-Check Red/Green Output LEDs
- High Speed Option HS Available
- AC or DC Power Options



### DESCRIPTION

The Model JH5500 Strain Gauge Transmitter supplies excitation to a strain gauge or other resistance bridge, amplifies the bridge voltage and provides a proportional, isolated DC voltage or current output. A low-drift input amplifier maintains accurate readings under varying ambient conditions. Excitation voltage may be set anywhere between 4 and 12 volts.

The JH5500 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 and DC power choices and reverse-acting transmitter (decreasing output with increasing input). Bridge applications other than strain gauges are possible: contact the factory with your requirements.

### HOW TO ORDER

**Model Number:** JH5500

**Power:**

Add suffix A (Model JH5500A) for AC power, D for DC power. Specify 115Vac, 230Vac, 12Vdc or 24Vdc.

**Input Range:**

Specify range required in millivolts (mV), volts (V) or millivolts per volt (mV/V). For example, with 10V bridge excitation a range of 0/20mV is the same as 0/2 mV/V. See Specifications (on back) for input capabilities. Offset input ranges are allowed.

**Bridge Excitation:**

User-adjustable. Normally factory-set to 10V. For other settings specify any voltage between 4 and 12Vdc. (Note: 40mA maximum load. For 120 ohm bridges, specify 4.8V or less.)

**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, JH5501A).

**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, JH5502A).

**High Speed Response:**

Approximately 1 msec. (see Specifications). Specify Option HS.

**Urethane Coating:**

Specify Option U.

## INSTALLATION

Model JH5500 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: Input plus (bridge output).
- 2: Input minus (bridge output).
- 3: Bridge excitation plus.
- 4: Bridge excitation minus.
- 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 Capabilities:

4mV (0.4mV/V at 10V excitation) minimum span, 10V (1V/V at 10V excitation) maximum. Offset

ranges are allowed. (Input Impedance: 200kohms.)

### Excitation Voltage:

Adjustable 4 to 12Vdc. Factory set to 10V unless otherwise specified. 40mA maximum current. (120 ohm bridges limited to 4.8V excitation or less. 350 ohm bridges ok to 12V.)

### 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 or 10 microvolts, whichever is greater.

### Adjustability:

Zero and span each are adjustable approx. +/-15% of span.

### 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:

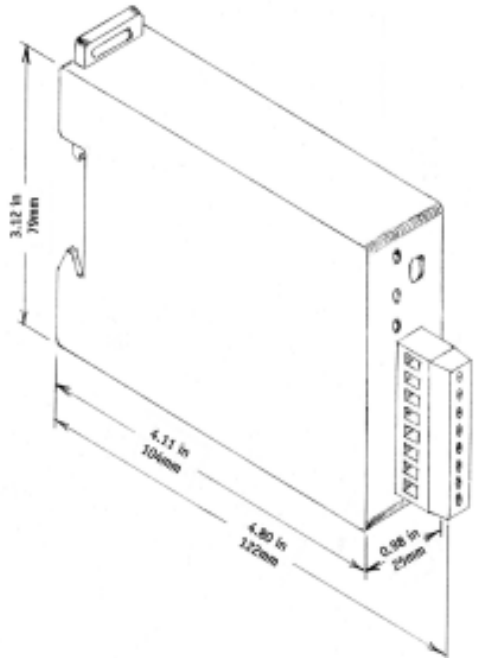
-10 to +60°C (14 to 140°F).

### Temperature Stability:

+/- (0.02% of span plus 1.3 microvolts) per °C, or better.

### Power Requirements:

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



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