

### FEATURES

- Translates AC Voltages or Currents to DC
- Inputs from 50mV to 250Vrms, 1mA to 5 Amps
- True-RMS Response Option Available
- Expanded Input Ranges Available
- Quick-Check Red/Green Output LEDs
- Unpluggable Terminal Strip
- AC or DC Power Options



### DESCRIPTION

Model JH5600 and JH5610 AC Input Transmitters provide an isolated DC output proportional to an AC voltage or current input. Applications range from power monitoring to millivolt-level AC signals from sensors. Input/output isolation is standard to guard against shock hazards in power measurements and against ground loop errors. Inputs ranges may be zero based or may be expanded (for example, 50-150Vac).

Model JH5600 is average responding, calibrated to provide accurate RMS readings with sine wave inputs. Accuracy is better than 0.5% of span, but will be degraded with nonsinusoidal waveforms such as from SCR/Triac speed and power controllers or pulse-modulated motor drives. For accurate readings with nonsinusoidal waveforms use true-RMS responding Model JH5610.

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

### HOW TO ORDER

**Model Numbers:**

JH5600: AC Input, Average Responding

JH5610: AC Input with True RMS Response

**Power:**

Add suffix A (for example, JH5600A) for AC power, D for DC power. Specify 115Vac, 230Vac, 12Vdc or 24Vdc.

**Input Range:**

Specify any AC voltage or current range allowed by the "Input

Capabilities" specification (see back).

**Output Range:**

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

**Reverse-Acting Transmitter:**

Decreasing output with increasing input. Change last digit of the model number to 1 (for example, JH5601A).

**Loop-Powered Output:**

4/20mA "current sink" output stage for connection to devices whose inputs provide 24Vdc loop excitation. Change last digit of the model number to 2 (for example, JH5602A).

**Urethane Coating:**

Specify Option U.

## INSTALLATION

JH5600 Series transmitters snap 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: AC signal input.
- 2: AC signal input.
- 3: No connection.
- 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).

## TRUE-RMS OPTION

Model JH5600 uses average-responding AC/DC converter circuitry calibrated for RMS sine wave response. Pure AC power and other sine wave inputs will be highly accurate. Nonsinusoidal waveforms, however, such as from SCR/Triac power controllers or variable speed drives (pulsed), will produce appreciable errors.

True-rms response, Model JH5610, gives correct readings regardless of the waveform's shape.

## 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

### Voltage Input Capabilities:

50mV rms minimum span, 250V maximum input (to 600V rms on special order). Offset ranges are allowed. (Input Impedance: 200kohms or greater.)

### Current Input Capabilities:

1mA rms minimum span, 5 Amps maximum input. Offset ranges are allowed. (Input voltage drop typically 0.1V at full scale. For exact specification for your range, contact factory.)

### Input Frequency:

40 Hz to 1kHz for specified accuracy.

### 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:

+/-0.5% of span or better.

### Adjustability:

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

### Response Time:

Under 200 milliseconds.

### Isolation:

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

### Operating Temperature:

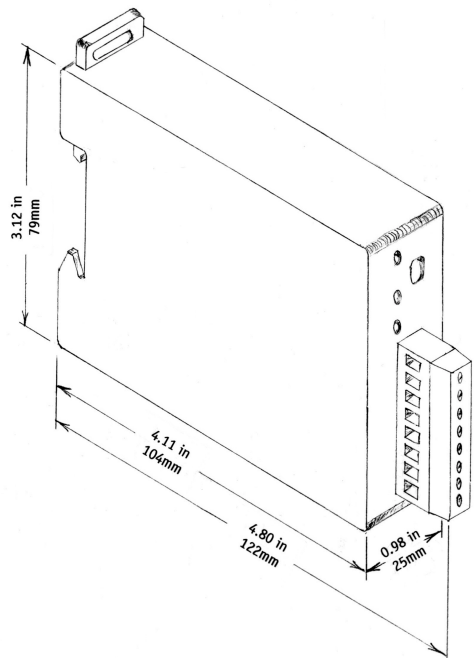
-10 to +60°C (14 to 140°F).

### Temperature Stability:

+/-0.02% 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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