

FEATURES

- Full Scale Frequencies from 10Hz to 100kHz
- Expanded Scale (Elevated-Zero) Ranges Available
- Adjustable Sensitivity Threshold
- Pullup Resistor and Sensor Excitation Included
- Quick-Check Red/Green Output LEDs
- Unpluggable Terminal Strip
- AC or DC Power Options



DESCRIPTION

Model JH5700 provides a DC output proportional to the input signal's frequency or pulse rate. A fixed-range device, it is precisely calibrated to your specified ranges at the factory.

The JH5700 accepts input amplitudes from 25mV (50mV pk-pk - see specifications) to 350V peak without recalibration. A sensitivity adjustment provides optimum tradeoff between sensitivity and noise rejection for each application. Terminal connections allow the selection of two options: a pullup resistor for dry-contact or open-collector inputs and a built-in DC excitation supply (approx. 18V) for low-current DC proximity sensors (25mA max).

Input/output isolation guards against shock hazards with high-voltage inputs and ground loop errors with low-level signals. AC or DC power choices are available.

HOW TO ORDER

Model Number: JH5700

Power:

Add suffix A (for example, JH5700A) for AC power, D for DC power. Specify 115Vac, 230Vac, 12Vdc or 24Vdc.

Input Range:

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

Input Sensitivity:

The adjustment is normally factory-set for maximum

sensitivity. If you wish a specific setting, please specify it on your order. (See specifications on back).

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, JH5701A).

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, JH5702A).

Urethane Coating:

Specify Option U.

INSTALLATION

Model JH5700 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: Frequency input (For normal inputs use terminals 1 & 2)
- 2: Input Common.
- 3: +18 V (approx.) sensor excitation voltage output. See specifications.
- 4: Pullup resistor (10K ohm to +9V). Jumper terminals 1 and 4 together for use with dry contact or open-collector (NPN) inputs.
- 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.

SENSITIVITY ADJ.

The sensitivity trimpot sets the threshold below which the unit will not respond. *Clockwise* provides

maximum sensitivity (see specs.), counterclockwise, minimum.

SPECIFICATIONS

Input Capabilities:

Min. span 10 Hz., max. frequency 100kHz. Low-end input may be zero, or may be as high as 2.5 x span (for example, 20Hz span with 50Hz elevation, for 50/70Hz range). (Input impedance: 200kohms or greater.)

Input Amplitude:

350V peak (700V pk-pk, 250V rms sine wave) maximum.

Threshold Adjustment:

25 turn trimpot. *Max. Sensitivity (full clockwise):* 50mV pk-pk for frequencies below 1kHz. Increases with frequency to 1V pk-pk at 100kHz.

Min. Sensitivity (full counterclockwise): 8V pk-pk for frequencies below 1kHz. Increases with frequency to 20V pk-pk at 100kHz.

Input Pullup Resistor:

10Kohms to +9V. Jumper terminals 1 and 4 to activate.

Input Sensor Excitation:

Approx. 18Vdc, unregulated, 25mA max. current. At terminal 3.

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.

Adjustability:

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

Linearity:

+/-0.05% of span or better.

Isolation:

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

Operating Temperature:

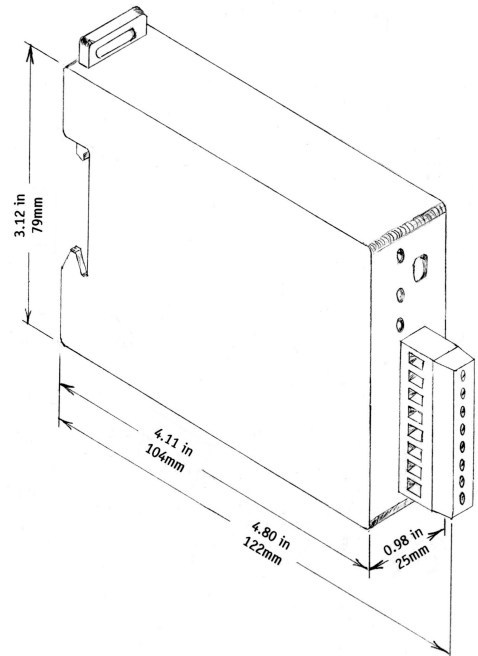
-10 to +60°C (14 to 140°F).

Temperature Stability:

+/-0.02% of full scale frequency 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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