

FEATURES

- Provides 24V Power to Input Loop
- 4/20mA Input Standard, Others Available
- Input/Output Isolated
- Quick-Check Red/Green Output LEDs
- Uses Standard 8-Pin Socket
- AC or DC Power Options
- Full Replacement Warranty



DESCRIPTION

The Model JH4305 provides an isolated DC voltage or current output proportional to a 4/20mA dc input. Designed to isolate and convert signals from 2-wire (loop-powered) transmitters, it includes a regulated 24Vdc input loop supply.

Using the JH4305 often eliminates the need for separate loop or system power supplies. Applications include boosting the drive capabilities of two-wire transmitters, converting current signals to voltages and splitting currents to provide two independent loops.

Other input ranges are possible. For example, the JH4305 may be used with DC-powered “3-wire” sensors and transmitters whose supply currents do not exceed 25mA. Input/output isolation overcomes the ground loop problems sometimes encountered with nonisolated DC-powered transmitters.

Available options include AC and DC power choices and reverse-action Option RT (decreasing output with increasing input).

HOW TO ORDER

Model Number: JH4305.

Power:

Add suffix -AC for AC power or -DC for DC power. (Example: JH4305-AC.) Specify 115Vac, 230Vac, 12Vdc or 24Vdc.

Input Range:

Select 4/20mA for use with 2-wire inputs, or any other range allowed by the “Input Capabilities” spec (see 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. Specify Option RT.

Loop-Powered Output:

4/20mA “current sink” output stage for connection to devices whose inputs provide 24Vdc loop

excitation. Specify Option LPO.

Urethane Coating:

Specify Option U.

INSTALLATION

The JH4305 plugs into any standard 8-pin circular (“octal”) relay socket. JH Technology offers part # DS008 for DIN-rail or surface mounting (see the Accessories page).

CONNECTIONS

Pin 1: Power (AC or, if DC power option, DC plus).

Pin 2: No connection.

Pin 3: Power (AC or, if DC power option, DC minus).

Pin 4: +24Vdc power to input transmitter.

For 2-wire loop, connect to transmitter’s plus (+) output terminal.

For 3-wire transmitter, connect to transmitter’s plus (+) power terminal.

Pin 5: Input plus.

For 2-wire loop, connect to transmitter’s minus (-) output terminal.

For 3-wire transmitter, connect to transmitter’s plus (+) output terminal.

Pin 6: Input common.

Not used with 2-wire loop.

For 3-wire transmitter, connect to transmitter’s minus (common) terminal.

Pin 7: Output plus.

Pin 8: Output 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

Voltage Input Capabilities:

50mV minimum span, +/-20V maximum input. Offset ranges are allowed. (Input Impedance: 200kohms or greater.)

Current Input Capabilities:

1mA minimum span, 0/25mA maximum input. Specify 4/20mA when used with a 2-wire transmitter. Offset ranges are allowed. (Input resistance varies with input range. Contact factory for details. 62 ohms for 4/20mA input.)

Input Excitation:

24Vdc regulated, 25mA max. current.

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 better.

Adjustability:

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

Linearity:

+/-0.05% of span or better.

Response Time:

Under 100 milliseconds.

Isolation:

Power, 1,500Vac rms (2,100V peak). Input/Output, 1,000Vac rms (1,400V peak).

Operating Temperature:

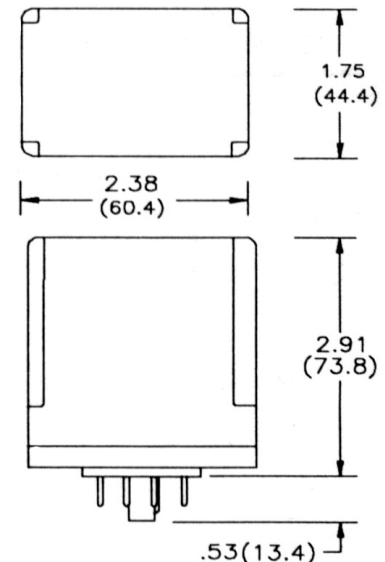
-10 to +60°C (14 to 140°F).

Temperature Stability:

+/-0.02% of span 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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