JH4001I

FEATURES

- Linearized for Platinum RTD. Available for others

- 3-Wire Lead Compensation (4-Wire Available)

- Input/Output Isolation is Standard

- Quick-Check Red/Green Output LEDs

- Industry Standard Pinouts (8-Pin Socket)

- AC or DC Power Options

- Full Replacement Warranty

DESCRIPTION

Model JH4001I provides a DC output proportional to temperature as measured by a resistance thermometer (RTD). A fixed-range device, it is precisely calibrated to your specified range at the factory.

Three-wire input circuitry compensates for lead wire resistance. (A 4-wire input option is available.) A low-drift input amplifier maintains accuracy under varying ambient conditions. Linearization is included when ordered for use with platinum RTDs. All other types are not linearized: output is proportional to the input resistance. Contact the factory for nonstandard requirements or for use with resistance inputs other than RTDs.

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

HOW TO ORDER

Model Number: JH4001I

Power:
Add suffix –AC for AC power or –DC for DC power. (Example: JH4001I-AC.) Specify 115Vac, 230Vac, 12Vdc or 24Vdc.

RTD:
Specify any standard RTD type between 10 and 2,000 ohms, or provide details for nonstandard RTD or resistance input.

Input Range:
Specify any 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).

4-Wire RTD:
Specify Option 4W.

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

Model JH4001I plugs into any standard 8-pin circular ("octal") relay socket. JH Technology offers part # DS008 suitable 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. (If 4-wire, same end of RTD as Pin 6.)

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

Pin 4: RTD.

Pin 5: RTD (same end of RTD as Pin 4). When connecting to 2-wire RTD, jumper pins 4 and 5.

Pin 6: RTD (opposite end from Pin 4).

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

RTD Type:
Any RTD from 10 to 2,000 ohms. Contact factory for other types of resistance inputs.

Input Capabilities:
Minimum span 10°C (18°F) or 1 ohm, whichever is greater. Any range up to maximum covered by RTD. Offset ranges are allowed.

Input Connection:
3-wire connection is standard. (May also be connected as 2-wire.) Specify Option 4W for 4-wire RTD.

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).

Endpoint Accuracy:
+/-0.1% of span or 0.02 ohms, whichever is greater.

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

Linearization:
Platinum inputs are linearized for RTD curve. Copper is inherently linear. All others are linear with input resistance.

Response Time:
Under 100 milliseconds.

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

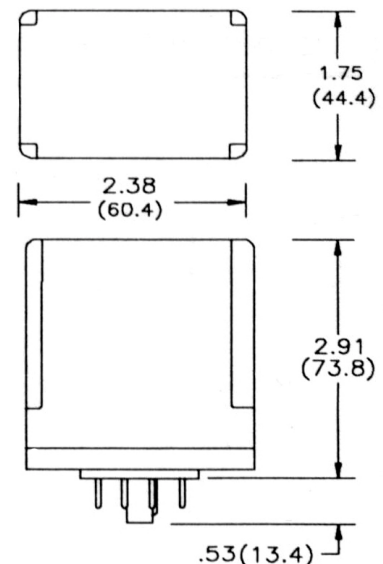**Operating Temperature:**
-10 to +60°C (14 to 140°F).

Temperature Stability:
+/-(0.02% of span plus 0.002°C) 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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