

JH1400/1420

PLUG-N-PLAY RTD INPUT ALARMS

FEATURES

- 3-Wire Lead Resistance Compensation
- Platinum, Nickel and other RTDs
- Switch-Selectable HI/LO Trip Function
- 5 Amp, 230Vac Relay Contacts
- Adjustable Deadband Standard
- Uses Standard 11-Pin Socket
- AC or DC Power Options



DESCRIPTION

Models JH1400 and JH1420 RTD Input Alarms monitor temperature as measured by a resistance thermometer (RTD) and provide relay contact HI/LO trip outputs. Both are fixed-range devices, with input ranges preset per your order. These alarms also may be ordered with setups to monitor resistances other than RTDs.

The alarm trip points are adjustable anywhere within the input range. Deadbands also are fully adjustable, from 0.25% to 100% of span. A slide switch, accessible through the top of the enclosure, selects HI or LO trip operation (HI/HI, HI/LO or LO/LO on dual alarms). Red/green LEDs indicate alarm status.

Three-wire input circuitry compensates for lead wire resistance. Alarm contacts are rated at 5 amps, 230Vac or 30Vdc. Model JH1400 provides one set of DPDT relay contacts; Model JH1420, two SPDT relays. AC and DC power options are available.

HOW TO ORDER

Model Numbers:

JH1400: Single Trip Alarm
JH1420: Dual Trip Alarm

Power:

Add suffix -AC for AC power or -DC for DC power. (Example: JH1420-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).

Trip Point:

If you would like the trip points to be factory set, please specify the following for each trip point. Specify HI or LO trip, specify the setpoint and specify the amount of deadband required (or specify "minimum deadband").

Relay Action:

Failsafe: Standard. Provided

unless otherwise specified. The relay is energized under normal conditions and deenergizes upon alarm or upon loss of power. Thus, loss of power is seen as an alarm condition.

Option R (Reverse Acting): Relay is normally not energized and energizes (pulls in) upon alarm trip.

Urethane Coating:

Specify Option U.

INSTALLATION

These alarms plug into any standard 11-pin circular (“octal”) relay socket. JH Technology offers two sockets: DS011 for DIN-rail or surface mounting and ST011 for Snap-Track mounting (see the Accessories page).

CONNECTIONS

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

Pin 2: RTD.

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

Pin 4: RTD (opposite end from Pins 2 and 5).

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

Pin 6: Setpoint 1 relay NO contact.*

Pin 7: Setpoint 1 relay moving contact.*

Pin 8: Setpoint 1 relay NC contact.*

Pin 9: Setpoint 2 relay NO contact.*

Pin 10: Setpoint 2 relay moving contact.*

Pin 11: Setpoint 2 relay NC contact.*

* Notes: NO (normally open) and NC (normally closed) refer to the relay state when no power is applied. For Failsafe operation the NO contacts are closed under nonalarm conditions. The NC contacts close upon alarm and upon loss of power. The terms Setpoint 1 and Setpoint 2 refer to dual-trip alarms. For single-

trip alarms, both sets of contacts respond to the same trip point.

RELAY CONTACTS

The relay contacts are rated for 5 amps, *resistive* load, up to 230Vac or 30Vdc. Contact protection (arc suppression) must be used when switching inductive loads. Our warranty does not cover relays whose contacts fail due to arcing or overloads.

SPECIFICATIONS

RTD Type:

Any RTD from 10 to 2,000 ohms. 3-wire connection (can also be connected as 2-wire). Specify RTD type, slope and resistance, or provide details for nonstandard RTD. Contact factory for other types of resistance inputs.

Input Capabilities:

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

Relay Contacts:

Single Alarm, one DPDT relay. Dual Alarm, two SPDT relays. Contacts rated 5 Amps resistive, 115/230Vac or 30Vdc. 1/8 HP max inductive load at 115/230Vac. Refer to instructions for contact protection when switching inductive loads.

Setpoint Adjustment:

0% to 100% of range.

Deadband Adjustment:

0.25% to 100% of range. Setpoint remains centered in the

middle of the deadband.

Response Time:

Under 100 milliseconds.

Isolation:

Input is isolated from power and from relay contacts. 1,500Vac rms (2,100V peak) breakdown.

Operating Temperature:

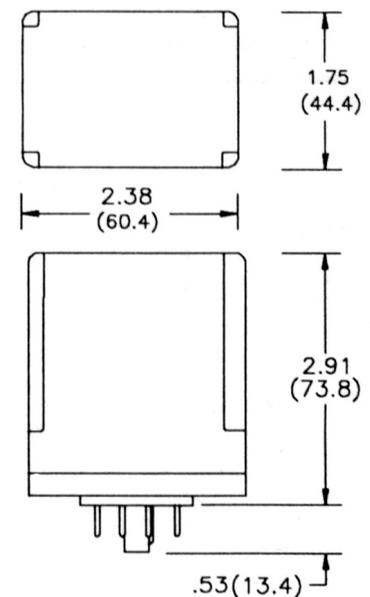
-10 to +60°C (14 to 140°F).

Temperature Stability:

+/- (0.02% of span plus 0.002°C) per °C, or better.

Power Requirements:

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



JH TECHNOLOGY, INC.

SARASOTA, FL USA

(800) 808-0300

www.jhtechnology.com

e-mail: jhtek@jhtechnology.com