JH1200/1220

PLUG-N-PLAY THERMOCOUPLE ALARMS

FEATURES

- Available for All Thermocouple Types
- In-The-Terminal Cold Junction Compensation
- Low-Drift Input Amplifier
- Jumper-Selectable Upscale/Downscale Burnout
- Adjustable Deadband Standard
- Red/Green Alarm Status LEDs
- AC or DC Power Options

DESCRIPTION

Models JH1200 and JH1220 Thermocouple Input Alarms monitor temperature as measured by a thermocouple and provide relay contact HI/LO trip outputs.

The cold junction compensation sensor is encapsulated into the input terminal for maximum accuracy. A low-drift input amplifier maintains accuracy under varying ambient conditions. An internal jumper allows HI or LO trip indication upon thermocouple failure.

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.

Alarm contacts are rated at 5 amps, 230Vac or 30Vdc. Model JH1200 provides one set of DPDT relay contacts; Model JH1220, two SPDT relays. AC and DC power options are available.

HOW TO ORDER

Model Numbers:
JH1200: Single Trip Alarm
JH1220: Dual Trip Alarm

Power:
Add suffix -AC for AC power or -DC for DC power. (Example: JH1220-AC.) Specify 115Vac, 230Vac, 12Vdc or 24Vdc

Thermocouple Type:
Select type J, K, T, E, R, S, B or N. Contact factory for others.

Input Range:
Specify range required in °C or °F. (See Specifications for input capabilities.)

T/C Burnout Indication:
Specify upscale (HI trip) or downscale (LO trip) burnout indication. Will be set for upscale if not specified on your order.

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 part # DS011 for DIN-rail or surface mounting (see the Accessories page).

CONNECTIONS

Input: The thermocouple connects to a small terminal block (which also includes cold junction compensation) on the side of the module. (Note: on most thermocouples, red is minus.) The remaining pin connections are:

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: No connection.

Pin 5: No connection.

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.

BURNOUT INDICATION

Upscale burnout indication causes a HI trip if the thermocouple breaks or burns out. Downscale causes a LO trip. Burnout indication may be changed by moving an internal jumper.

SPECIFICATIONS

Input Capabilities:
Any input span 4mV or higher. Offset ranges are allowed.

Input Thermocouple Type:
Any standard thermocouple type (J, K, T, E, R, S, B, N). Others possible – contact factory.

T/C Burnout Indication:
Jumper-selectable upscale (off-scale high) or downscale (offscale low). Factory-set for upscale unless otherwise specified.

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.

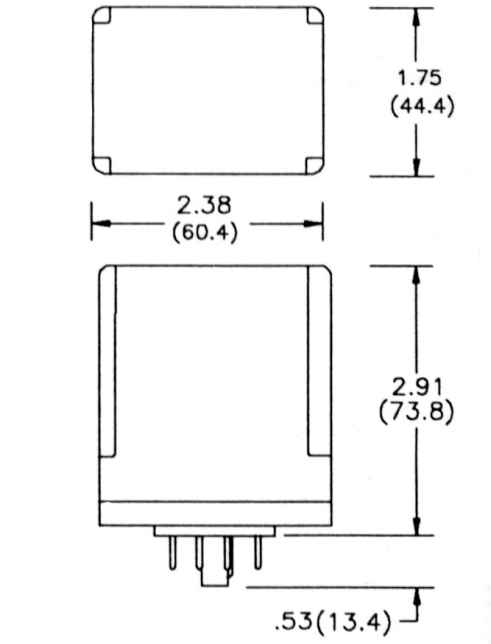
Response Time:
Under 100 milliseconds.

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 1.3 microvolts) 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