JH1500/1520

PLUG-N-PLAY STRAIN GAUGE ALARMS

FEATURES

- Input Spans as low as 0.4mV/V (at 10V excitation)
- Excitation Adjustable from 4 to 12V
- 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 JH1500 and JH1520 supply DC excitation to a strain gauge or other resistance bridge, amplify the bridge output and provide relay contact HI/LO trip outputs. Both are fixed-range devices, with input ranges preset per your order.

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 (on dual alarms, HI/HI, HI/LO or LO/LO). Alarm contacts are rated at 5 amps, 230Vac or 30Vdc. Model JH1520 (dual trip) provides an SPST relay contact for Setpoint #1, SPDT for Setpoint #2. On Model JH1500 (single trip) both sets of contacts respond to the single setpoint.

Red/green LEDs indicate alarm status. A low-drift input amplifier maintains accurate setpoint settings with changing ambient temperature. AC and DC power options are available. Bridge applications other than strain gauges are possible: contact the factory with your requirements.

HOW TO ORDER

Model Numbers:

JH1500: Single Trip Alarm
JH1520: Dual Trip Alarm

Power:

Add suffix -AC for AC power or -DC for DC power. (Example: JH1520-AC.) Specify 115Vac, 230Vac, 12Vdc or 24Vdc

Input Range:

Specify range required in millivolts (mV), volts (V) or millivolts per volt (mV/V). For example, with 10V bridge excitation a range of 0/20mV is the same as 0/2 mV/V. See Specifications (on back) for input capabilities. Offset input ranges are allowed.

Bridge Excitation:

Specify any voltage between 4 and 12Vdc. Will be factory set to 10V if not specified on your order. User-adjustable. (Note: 40mA maximum load. For 120 ohm bridges, specify 4.8V or less.)

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

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

Pin 2: Setpoint 1 relay moving contact.*

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

Pin 4: Input plus (bridge output).

Pin 5: Input minus (bridge output).

Pin 6: Setpoint 1 relay NO contact.*

Pin 7: Bridge excitation plus.

Pin 8: Bridge excitation minus.

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

Input Capabilities:
4mV minimum span (0.4mV/V at 10V excitation). 10V maximum span (1V/V at 10V excitation). Offset ranges are allowed. (Input Impedance: 200kohms.)

Excitation Voltage:
Adjustable from 4 to 12Vdc. 40mA maximum load. Factory set to 10Vdc unless otherwise specified. (Note: 120 ohm bridges limited to 4.8V or less. 350 ohm bridges are ok to 12V.)

Relay Function, Model JH1500:
Single Alarm: One set of SPST contacts, normally open (open upon loss of power), and one set of SPDT contacts.

Relay Function, Model JH1520:
Dual Alarm: Setpoint 1, SPST, normally open (open upon loss of power). Setpoint 2, SPDT relay.

Relay Contacts:
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.

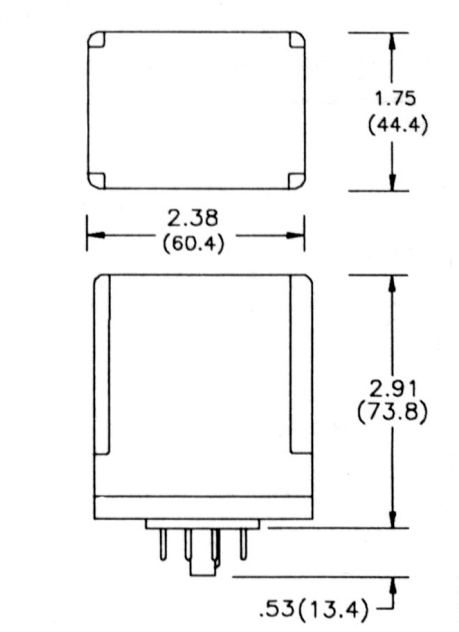
Response Time:
Under 100 milliseconds.

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.



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