

FEATURES

- Full-Scale Frequencies from 10Hz to 100kHz
- Elevated-Zero Inputs Available
- 5 Amp, 230Vac Relay Contacts
- Pullup Jumper for Contact-Closure Inputs
- Adjustable Input Sensitivity Threshold
- Industry-Standard Pinouts (11-Pin Socket)
- AC or DC Power Options



DESCRIPTION

Models JH1700 and JH1720 Frequency Input Alarms monitor an input frequency and provide relay contact HI/LO trip outputs. A sensitivity adjustment allows threshold optimization for each application. Elevated-zero inputs are available; for example, 50 to 70Hz.

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). An internal jumper connects a pullup resistor for use with open-collector or contact closure inputs. Red/green LEDs indicate alarm status.

Alarm contacts are rated at 5 amps, 230Vac or 30Vdc. Model JH1700 provides one set of DPDT relay contacts; Model JH1720, two SPDT relays. AC and DC power options are available.

HOW TO ORDER

Model Numbers:

JH1700: Single Trip Alarm

JH1720: Dual Trip Alarm

setting, please specify it on your order. (See specifications on back.)

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.

Power:

Add suffix -AC for AC power or -DC for DC power. (Example: JH1720-AC.) Specify 115Vac, 230Vac, 12Vdc or 24Vdc

Pullup Resistor:

If desired, specify "Pullup". Jumper will be set in pullup position. Input sensitivity will be set appropriately.

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

Input Range:

Select any frequency 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").

Input Sensitivity:

The adjustment is normally factory-set for maximum sensitivity. If you wish a specific

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: No connection.

Pin 3: Power (AC or DC minus).

Pin 4: Frequency input.

Pin 5: Input common.

Pin 6: Setpoint 1 relay NO contact.*

Pin 7: Setpoint 1 moving contact.*

Pin 8: Setpoint 1 relay NC contact.*

Pin 9: Setpoint 2 relay NO contact.*

Pin 10: Setpoint 2 relay 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.

SENSITIVITY ADJUSTMENT

The sensitivity trimpot sets the threshold below which the unit will

not respond. *Clockwise* provides maximum sensitivity (see specs); counterclockwise, minimum.

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:

Min. span, 10 Hz, max. frequency 100kHz. Offset ranges are possible; for example, 50-70 Hz.

Input Amplitude:

350V peak (700 pk-pk, 250V rms sine wave) maximum.

Threshold Adjustment:

25 turn trimpot. *Max. Sensitivity (full clockwise):* 50mV pk-pk for frequencies below 1kHz. Increases with frequency to 1V pk-pk at 100kHz.

Minimum Sensitivity (full ccw): 8V pk-pk for frequencies below 1kHz. Increases to 20V pk-pk at 100kHz.

Input Pullup Resistor:

10Kohms to +9V. Activated by internal jumper.

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.

Isolation:

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

Operating Temperature:

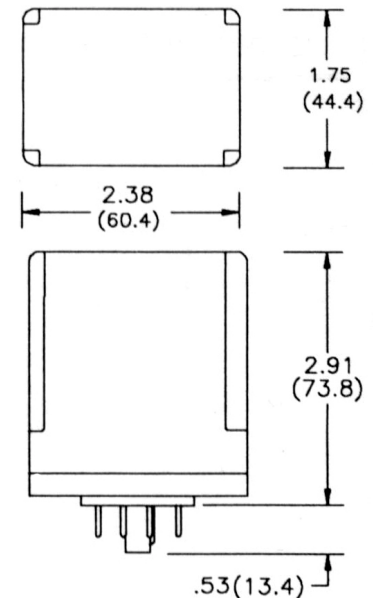
-10 to +60°C (14 to 140°F).

Temperature Stability:

+/-0.02% of span 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