

# JH1005/1025

## PLUG-N-PLAY DC INPUT ALARMS WITH INPUT LOOP EXCITATION

### FEATURES

- Provides 24V Power to Input Loop
- 4/20mA Input Typical, Others Available
- Switch-Selectable HI/LO Trip Function
- 5 Amp, 230Vac Relay Contacts
- Adjustable Deadband Standard
- Red/Green Alarm Status LEDs
- AC or DC Power Options



### DESCRIPTION

Models JH1005 and JH1025 provide 24Vdc loop excitation for a remote 2-wire transmitter, take the signal from that transmitter and provide relay contact HI/LO trip outputs. They also may be used with DC-powered “3-wire” sensors and transmitters whose supply currents do not exceed 25mA.

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). Red/green LEDs indicate alarm status.

Alarm contacts are rated at 5 amps, 230Vac or 30Vdc. Model JH1005 provides one set of DPDT relay contacts; Model JH1025, two SPDT relays. AC and DC power options are available.

### HOW TO ORDER

#### Model Numbers:

JH1005: Single Trip Alarm  
JH1025: Dual Trip Alarm

#### Power:

Add suffix -AC for AC power or -DC for DC power. (Example: JH1025-AC.) Specify 115Vac, 230Vac, 12Vdc or 24Vdc

#### Input Range:

Select 4/20mA for use with 2-wire inputs, or any other range allowed by the “Input Capabilities” (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 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:** +24Vdc power to input transmitter.

For 2-wire loop, connect to transmitter’s plus (+) output terminal.

For 3-wire transmitter, connect to transmitter’s plus (+) power terminal.

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

**Pin 4:** Input plus.

For 2-wire loop, connect to transmitter’s minus (-) output terminal.

For 3-wire transmitter, connect to transmitter’s plus (+) output terminal.

**Pin 5:** Input common.

Not used with 2-wire loop.

For 3-wire transmitter, connect to transmitter’s minus (common) terminal.

**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

### Voltage Input Capabilities:

50mV minimum span, +/-20V maximum input. Offset ranges are allowed. (Input Impedance: 200kohms or greater.)

### Current Input Capabilities:

1mA minimum span, 0/25mA maximum input. Specify 4/20mA when used with a 2-wire transmitter. Offset ranges are allowed. (Input resistance varies with input range. Contact factory for details. 62 ohms for 4/20mA input.)

### Input Excitation:

24Vdc regulated, 25mA max. current.

### 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:

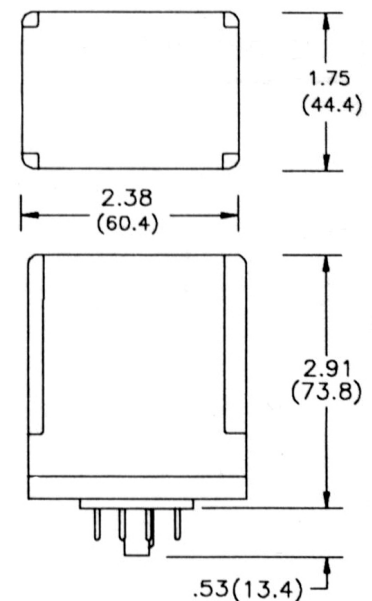
-10 to +60°C (14 to 140°F).

### Temperature Stability:

+/-0.02% of span 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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