

JH4410I/4420I

PLUG-N-PLAY MULTIPLY/DIVIDE TRANSMITTERS

FEATURES

- Multiply or Divide Two DC Inputs
- Input and Output Ranges Need Not be the Same
- Unequal Inputs Available as Specials
- Input/Output Isolation Standard
- Quick-Check Red/Green Output LEDs
- Industry Standard Pinouts (8-Pin Socket)
- AC or DC Power Options



DESCRIPTION

The JH4410/4420 Series offers DC outputs representing the product or quotient of two DC inputs. Input and output ranges need not be the same; for example, the inputs could be 0/10Vdc while the output could be 4/20mA. These are fixed-range devices, precisely calibrated to your specified ranges at the factory.

Special capabilities go beyond the standard catalog offerings and include unequal inputs, input/output offsets and nonstandard gains. Contact the factory for details.

Input/output isolation is standard. (The inputs are not isolated from each other.) Available options include AC or DC power choices and reverse-action Option RT (decreasing output with increasing inputs).

HOW TO ORDER

Model Numbers:

JH4410I: Output = AxB
JH4420I: Output = A/B

Output Range:

Specify any DC voltage or current range allowed by the "Output Capabilities" spec (see back).

Urethane Coating:

Specify Option U.

Power:

Add suffix -AC for AC power or -DC for DC power. (Example: JH4410I-AC.) Specify 115Vac, 230Vac, 12Vdc or 24Vdc.

Reverse-Acting Transmitter:

Decreasing output with increasing input function. Specify Option RT.

Input Range:

Specify any DC voltage or current range allowed by the "Input Capabilities" spec (see back).

Loop-Powered Output:

4/20mA "current sink" output stage for connection to devices whose inputs provide 24Vdc loop excitation. Specify Option LPO.

INSTALLATION

These transmitters plug into any standard 8-pin circular (“octal”) relay socket. JH Technology offers part # DS008 for DIN-rail or surface mounting (see the Accessories page).

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: B input (plus).

Pin 5: A input (plus).

Pin 6: Input common (minus).

Pin 7: Output plus.

Pin 8: Output minus.

MULTIPLY/DIVIDE FUNCTIONS

Standard calibration calculates the inputs and output on a percent-of-span basis. For example, for $Output = A \times B$ with a 4/20mA input range and 0/10V output range, if both inputs are at 50% (12mA) the output will be 25% ($0.5 \times 0.5 = 0.25$), or 2.5 volts.

Nonstandard calibrations are available, including dissimilar input ranges and input-to-output offsets. We also are able to provide $Output = (A \times B) / C$ in one unit. Please contact us with your special requirements.

QUICK-CHECK LEDS

Red-green Quick-Check LEDs give a quick indication of the relative output. Red is brighter at the low end, green at high, while at mid-scale both are approximately equal. Red-only indicates offscale low while green-only indicates offscale high.

SPECIFICATIONS

Voltage Input Capabilities:

100mV minimum span, +/-20V maximum input. Offset ranges are allowed. (Input Impedance: 200kohms or greater.)

Current Input Capabilities:

1mA minimum span, +/-100mA maximum input. Offset ranges are allowed. (Input Resistance: Varies with input range. Contact factory for details. 62 ohms for 4/20mA input.)

Voltage Output Capabilities:

1 volt minimum output span, -10 to +15V absolute limit. Offset ranges are allowed. Maximum output load, 10mA (1Kohm at 10V output).

Current Output Capabilities:

1mA minimum output span, 0 to +25mA absolute limit. Positive offsets are allowed, negative outputs are not. Output drive capability, 24V (1,200 ohms max. at 20mA output).

Accuracy:

+/-0.2% of span or better. (For divider, input B must be greater than 20% of span to achieve rated accuracy.)

Adjustability:

Zero and span each are adjustable approx. +/-15% of span.

Response Time:

Under 100 milliseconds.

Isolation:

Power, 1,500Vac rms (2,100V peak). Input/Output, 1,000Vac rms (1,400V peak). NOTE: The inputs are not isolated from each other.

Operating Temperature:

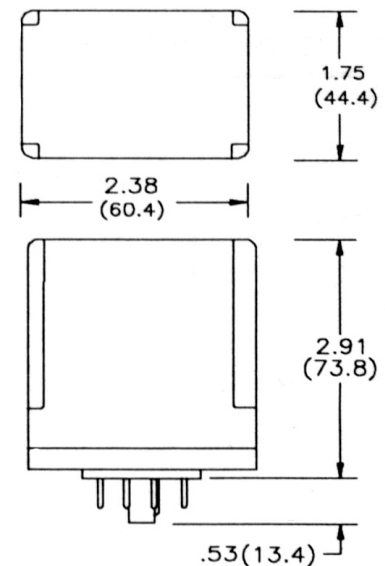
-10 to +60°C (14 to 140°F).

Temperature Stability:

+/-0.02% of span per °C, or better.

Power Requirements:

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



JH TECHNOLOGY, INC.

SARASOTA, FL USA
(800) 808-0300

www.jhtechnology.com
e-mail: jhtek@jhtechnology.com