FIELD SELECTABLE ISOLATED High Voltage Input DC to DC Transmitter

API 4380 G HV3

Specifications

Input/Output Ranges
See Table: Other switch selectable ranges possible within Input/Output limits. (Consult Factory)

Input Impedance
(Voltage) 1 meg ohm min.

Output Capability
(Voltage) +/-10VDC, +/-10mA max.
(Current) 25mADC, 20V Compliance @ 20mA

Isolation
2000V RMS min.

Linearity
Better than .1% of Span.

Response Time
(Standard Unit) 100mSec. typical
(High Speed Unit) 30mSec. typical

Temperature Stability
Better than .02% of Span per °C

Zero/Span Control Range
+/-15%nominal.

Functional Test Pushbutton
Adjustable from 0 to 100% of Span.
Factory set @ 50% of Span, +/-1.5%.

Output Ripple and Noise
Less than 10mV RMS.

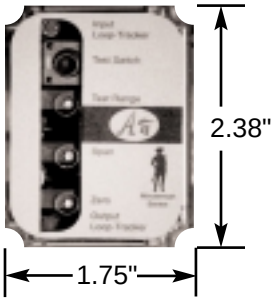
Ambient Temperature Range
-10 to +60 Deg. C (Operating)

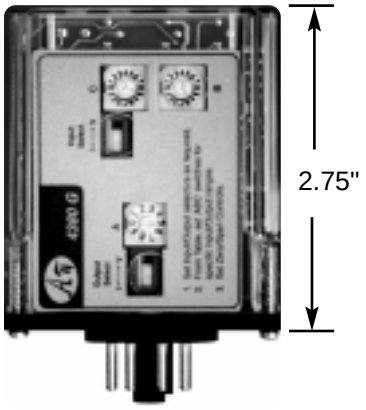
Power
Standard: 115VAC +/-10%, 50/60Hz, 2.5W max.
Optional: 230VAC +/-10%, 50/60Hz, 2.5W max.
* 12VAC +/-10%, 50/60Hz, 2.5W max.
* 24VAC +/-10%, 50/60Hz, 2.5W max.
* 12VDC +/-5%, 125mA max.
* 24VDC +/-5%, 65mA max.
* 9-30VDC @1.5W max.

FEATURES

- **High Voltage Inputs up to +/-200 VDC**
- **Hundreds of Input/Output Ranges Switch Selectable Without Opening Case**
- **Input/Output Range Setting From a Simple-to-Use Table**
- **2000VRMS Isolation Input/Output/Power**
- **Input/Output LoopTracker™ LED's**
- **Functional Test Pushbutton**
- **LIFETIME WARRANTY**

CASE DIMENSIONS



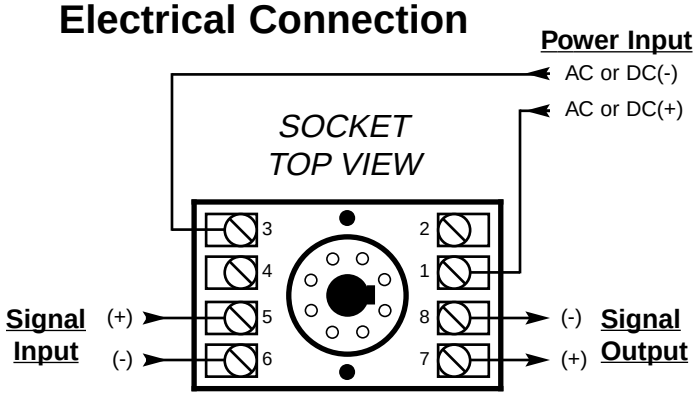


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Chart of Common Ranges

Input		Output
Voltage		**Voltage**
Min. Span: 1V Max. Span: +/- 200V		Min. Span: 1V Max. Span: +/- 10V
Current		**Current**
N/A		Min. Span: 2mA Max. Span: 20mA

Electrical Connection



FUNCTIONAL DESCRIPTION

The API 4380 G HV3 accepts a DC Voltage Input and provides an Optically Isolated DC Voltage or Current Output that is linearly related to the input. This module is unique because it is field rangeable for Voltage Inputs to +/- 200VDC. Typical applications include Signal Isolation, Signal Conversion, Signal Boosting or a combination of the three.

The Optical Isolation between Input and Output makes this module useful for Ground Loop Elimination, Common Mode Signal Rejection or Noise Pickup Reduction. The API 4380 G HV3 uses the latest technology in linear optical isolation for optimum noise immunity and complete freedom from AC artifacts in the Output. In addition, the module Power Supply is isolated, resulting in full 3-way (Input, Output, Power) Isolation. Standard power is 115VAC; options include 230VAC, 12/24 VDC/VAC or 9-30VDC.

The API 4380 G HV3 distinguishes itself from other similar products in that both it's Input and Output can be field-configured (without requiring the case to be opened) via external rotary & slide switches. The more common ranges can be selected from a table on the module label. However, virtually unlimited combinations are possible. (Consult the factory for assistance.)

The API 4380 G HV3 plugs into an industry standard octal (8-Pin) socket (sold separately). The socket provided by API (part #API-008) allows for either DIN rail or panel mounting.

UNIQUE FEATURES

API Exclusive Features include two ***LoopTracker™ LEDs*** and a ***Functional Test Pushbutton***. The LoopTracker™ LEDs (Green for Input; Red for Output) vary in intensity with changes in the Input (process) signal. Monitoring the state of these LEDs can provide a quick visual picture of your process loop at all times. The Functional Test Pushbutton provides a fixed output (independent of the input) when held depressed. The Test Output level can be field-adjusted via a top-accessible multiturn pot to any value from 0 to 100% of the calibrated range. Both the ***LoopTracker™*** LEDs and ***Functional Test Pushbutton*** greatly aid in the reduction of time during initial startup and/or troubleshooting.

OPERATION

Depending on the API 4380 G HV3 rotary switch settings, the input is filtered, either attenuated and/or amplified as required, then passed through an optical isolation circuit to the output stage. The rotary switch settings and Output Selector switch determine the exact DC Voltage or Current Output available to the user.

RELATED PRODUCTS

The following products are available for use with a DC Voltage or Current Input. Refer to the appropriate data sheets for details.

API 4380 G
Same as API 4380 G HV3, but Voltage Inputs up to -/+10VDC and Current Inputs to 20mADC

API 4380 G DF
Same as API 4380 G, Fast Response Time

API 4380 DIN
Same as API 4380 G, but DIN Style Case; Universal Power 48-300VDC or 80-265VAC

API 4380 DD
Same as API 4380 DIN, but 9-30VDC Power

API 4385 G
Same as API 4380 G, but NON-Interactive Zero & Span Adjustments, +/-100% Offset, Reverse Output Capability

API 4300 G
Factory ranged DC to DC Isolating Transmitter. Used in applications requiring special offsets and ranges.

API 7500 G
Field Selectable DC to Frequency Isolating Transmitter.

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