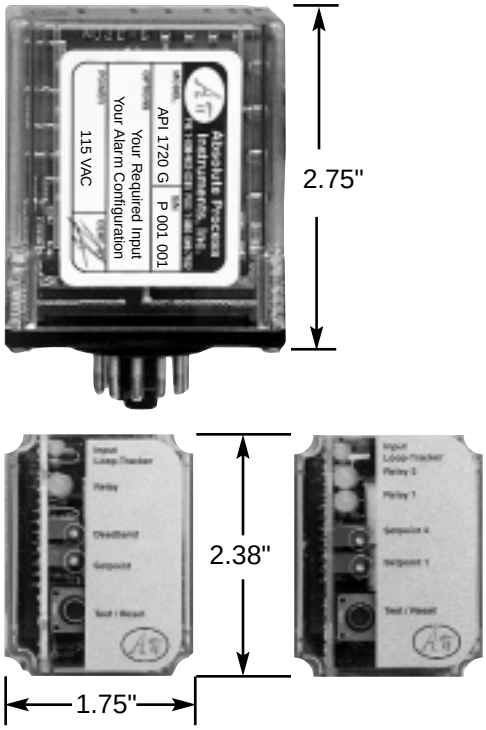
Plug-in Signal Conditioners
Frequency Input
API 1700 G
Single Alarm Trip
API 1720 G
Dual Alarm trip

FEATURES

- Wide Range of Input Frequencies
- Two Fully Independent Setpoints on API 1720 G
- Input LoopTracker™ LED
- Alarm Status LED's
- High Capacity Relay Contacts
- LIFETIME WARRANTY

CASE DIMENSIONS



Specifications

Input Span (Factory Configured)
Minimum: 10Hz Maximum: 20KHz

Input Impedance (Voltage)
100K Ohm min.

Input Protection, Common Mode
(Normal Mode) 200% of input rating.
(Common Mode) 600V (DC or peak AC), input to ground.

Input Amplitude Range
100mV to 150V RMS.

Setpoint
12 Turn, Adjustable over 0 to 100% of Span.

Deadband
Api 1700 G Adjustable over 1.0 to 100% of Span. 12 Turn
Api 1720 G Adjustable over 1.0 to 100% of Span. 1 Turn

Response Time
70mSec. typical.

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

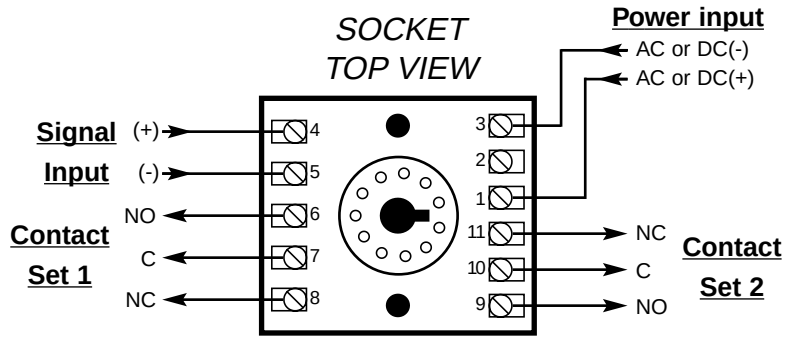
Ambient Temperature Range
-10 to +60 °C (Operating).

Relay
Dual SPDT, 7A contacts @ 240VAC (resistive load), 3.5A contacts @ 240VAC (inductive load)
(CAUTION: Socket contacts may limit system rating, and external contact protection is recommended for inductive loads).

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 @2.5W Typical.

ABSOLUTE PROCESS INSTRUMENTS, Inc.

Electrical Connection



FUNCTIONAL DESCRIPTION

The API 1700 G and API 1720 G are factory configured for a Frequency Input. The API 1700 G provides a single setpoint adjustment, a visual alarm indication via a bi-color LED and an alarm output via relay contacts (DPDT) when the input exceeds (HI Alarm) or falls below (LO Alarm) a preset (setpoint) level. The API 1720 G contains two independent setpoints with corresponding bi-color LEDs and relay contact outputs (SPDT for each setpoint). The modules can be factory configured for virtually any frequency from 10Hz thru 20KHz at amplitudes from 100mV to 150VRMS. Consult the factory for assistance with your specific application.

The Alarm Output(s) can be factory configured for HI or LO operation on the API 1700 G and HI/HI, HI/LO, LO/HI or LO/LO operation on the API 1720 G. Non-Latching and Normal Mode (Fail-Safe) operation is standard. However, Latching and/or Reverse Sense (Non-Fail-Safe) options are available. Heavy-duty relay contacts (7A @240VAC, resistive load) allow the module to directly control high capacity loads without a secondary device. Standard module power is 115VAC; options include 230VAC, 12/24 VDC/VAC or 9-30VDC.

A top-accessible, multi-turn potentiometer is available to adjust the alarm setpoint (one for each setpoint on the API 1720 G) from 0-100% of the calibrated input span. The API 1700 G comes standard with a multi-turn deadband potentiometer which allows the alarm "trip & reset" window to be adjusted symmetrically about the setpoint from 1 to 100% of the span. The deadband is fixed at 1% for each setpoint on the API 1720 G. However, independent adjustable deadbands are available as an option. Deadband is typically used to eliminate false trips or alarm "chatter" caused by rapid fluctuations in the process input.

The API-1700 G and API 1720 G plug into an industry standard 11-Pin socket (purchased separately). The socket provided by API (part #API-011) allows for either DIN rail or panel mounting.

UNIQUE FEATURES

API Exclusive Features include a ***LoopTracker™ LED*** which varies in intensity with changes in the process signal, a ***Bi-Color Alarm Status LED*** (Red=Alarm; Green=Normal) (one for each setpoint on the API 1720 G), and a Functional Test Pushbutton which toggles the alarm status independent of the input when depressed. The ***Functional Test Pushbutton*** verifies the alarm and system operation and also provides the additional function of unlatching the alarm if the Latching option was specified.

OPERATION

For a standard configuration, (Normal Mode, Non-latching) the alarm will activate when the process signal (Input) exceeds the setpoint (HI alarm) or falls below the setpoint (LO alarm), then automatically reset when the alarm condition no longer exists. It is important to note that in the Normal (Fail-Safe) mode, the relay coil is *energized* in the *safe* condition and *de-energized* in the *alarm* condition. In the Reverse Sense (Non-Fail-Safe) mode, the relay coil is *de-energized* in the *safe* condition and *energized* in the *alarm* condition. (The Alarm Status LED will always be Green in the non-alarm condition and Red in the alarm condition.) If configured as Latching, it will be necessary to push the Functional Test Pushbutton or remove power from the module to reset the alarm. (Note: the alarm will only reset if the alarm condition no longer exists.)

RELATED PRODUCTS

The following products are also available for use with a Frequency Input. Refer to the appropriate data sheets in this section for details.

API 7010 G

Factory Configured Frequency to DC Isolator. Typically used for special ranges.

API 7580 G

Frequency to DC Isolator. Field Selectable Frequency Inputs and DC Voltage or Current Outputs.

API 7500 G

DC to Frequency Isolator. Field Selectable DC Voltage or Current Inputs and Frequency Outputs. Open Collector Output.

API 7500 G M02

DC to Frequency Isolator. Field Selectable DC Voltage or Current Inputs and Frequency Outputs. With a Square Wave Output.

ABSOLUTE PROCESS INSTRUMENTS, Inc.

Proudly Represented By:

MOD-TRONIC INSTRUMENTS LIMITED
48 Haggert Ave N
Brampton, ON L6X 1Y3
Tel: 905 457-6322
Fax: 905 457-4716
Toll Free: 800 794-5883