

# Frequency Alarms and Transmitters, DC to Frequency Transmitters

Frequency cutout alarms, convert frequency to a process signal, or process signal to frequency

- Machinery Speed High or Low Alarm
- Sine, Square, Sawtooth Wave Input


## Alarm Model Specifications

Field adjustable alarm setpoint(s)  
 Alarm options: HI, LO, HI/LO, LO/LO, HI/Hi latching, reverse acting, band or inverse band alarm on APD 1730

## Field Rangeable Frequency to DC Models

Single turn potentiometer input sensitivity adjustment

## Field Rangeable DC to Frequency Models

5 V MOSFET square wave output   
 Potentiometer adjustable cutout control, 2%- 25% of range

## Analog Output Zero and Span

Multi-turn potentiometers, ±15% of span adjustment range



Free Factory I/O Setup!

Info & Applications [api-usa.com/freq](http://api-usa.com/freq)



## Functional Test Button

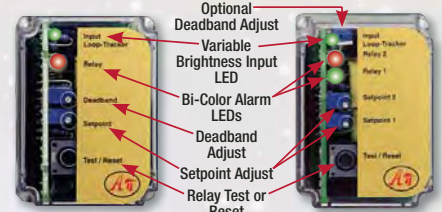
Alarm models: Toggles alarm output state  
 Analog output: Sets output to test level when pressed, adj. 0-100% of span, 2-100% for API 7500

## Response Time

70 milliseconds typical  
 7580 series: Low ranges: 600 milliseconds typical  
 High ranges: 110 milliseconds typical

## Isolation

Alarms: Power to input  
 Transmitters: 3-way power/input, power/output, I/O



API 1700 G Freq. Input Alarms

API 1720 G Freq. Input Alarms



Socket Sold Separately

API 7500 G



Socket Sold Separately

API 7580 G



APD 7010



APD 7580

Model	Type	Specify Input Range	Specify Alarm Type and Options
API 1700 G	11 pin plug in	0-10 Hz to 0-20 kHz, 100 mVRMS to 150 VRMS	1 DPDT relay, 7 A, adjustable deadband
API 1720 G			2 SPDT relays, 7 A, 1% deadband standard
APD 1700	DIN	0-10 Hz to 0-20 kHz, 100 mVRMS to 150 VRMS	2 DPST relays, 7 A, 1 setpoint, adjustable deadband
API 1720			2 DPST relays, 8 A, 2 setpoints, adjustable deadband
APD 1730			2 DPST relays, 8 A, 2 setpoint band alarm, adj. deadbands
Model	Type	Specify Input Range	Specify Output Range
API 7010 G	8 pin plug in	0-25 Hz to 0-20 kHz, 100 mVRMS to 150 VRMS	0-1 VDC to 0-10 VDC, ±1 VDC to ±10 VDC, 0-1 mA to 0-20 mA, 20 V sourcing mA, sinking optional
APD 7010	DIN	0-25 Hz to 0-20 kHz, 100 mVRMS to 150 VRMS	0-1 VDC to 0-10 VDC, ±1 VDC to ±10 VDC, 0-1 mA to 0-20 mA, connect for sink or 20 V sourcing mA
Model	Type	Switch Selectable Input	Switch Selectable Output
API 7500 G	8 pin plug in	0-50 mVDC to ±10 VDC 0-1 mA to 0-20 mA	0-100 Hz to 0-30 kHz SS version: 0-1 Hz to 0-300 Hz MOSFET output standard, MO2 option for TTL output
API 7580 G	8 pin plug in	0-100 Hz to 0-30 kHz, 100 mVRMS to 150 VRMS	0-1 VDC to 0-10 VDC, ±1 VDC to ±10 VDC, 0-1 mA to 0-20 mA, 20 V sourcing mA
APD 7580	DIN	0-100 Hz to 0-30 kHz, 100 mVRMS to 150 VRMS	0-1 VDC to 0-10 VDC, ±1 VDC to ±10 VDC, 0-1 mA to 0-20 mA, connect for sink or 20 V sourcing mA

# Valve Positioners

An easy-to-setup valve actuator with choice of position feedback types

- Automatic or Manual Control
- Valve, Linear Actuator, or Damper Control

## Operation

The input signal is compared to a position feedback signal. An SPDT relay provides bidirectional (open-close) signals to open or close a valve. When the feedback signal becomes equal to the control input, the relay will go to the neutral position and the motor will halt.

## Operational Controls

Automatic/manual switch, manual open/close buttons

## Feedback

Versions for potentiometer, voltage or mA feedback

## Deadband

12 turn potentiometer, adjustable 1 to 25% of span



Free Factory I/O Setup!

Info & Applications [api-usa.com/valve](http://api-usa.com/valve)

## LoopTracker®

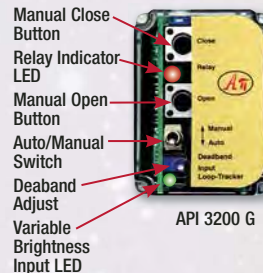
Variable brightness LED for input level  
 Bicolor red/green LED for relay status

## Input Zero and Span

Potentiometer adjustable, ±10% of span range typical

## Response Time

100 milliseconds typical



API 3200 G



APD 3200



APD 3280

Model	Type	Specify Input Range	Position Feedback	Output
API 3200 G	11 pin plug in	0-1 V to 0-100 VDC, 0-10 mA to 0-1 ADC	Any full range potentiometer 0-100 Ω to 0-100 kΩ	7 A SPDT relay with neutral position, adjustable deadband
API 3200 G MO1	11 pin plug in	0-1 V to 0-100 VDC, 0-10 mA to 0-1 ADC	Voltage feedback (specify range), typical: 0-1 V, 0-5 V, 1-5 V, 0-10 V	
API 3200 G M420	11 pin plug in	0-1 V to 0-100 VDC, 0-10 mA to 0-1 ADC	mA feedback (specify range), typical: 0-20 mA, 4-20 mA, 10-50 mA	
APD 3200	11 pin plug in	0-1 V to 0-100 VDC, 0-10 mA to 0-1 ADC	Any full range potentiometer 0-100 Ω to 0-100 kΩ	8 A SPDT relay with neutral position, adjustable deadband
Model	Type	Switch Selectable Input	Position Feedback	Output
APD 3280	DIN	24 selectable input ranges 0-50 mV to 0-10 VDC, 0-1 mA to 0-20 mA	Any full range potentiometer 0-100 Ω to 0-100 kΩ	8 A SPDT relay with neutral position, adjustable deadband