1-895 Vibration Switch

Applications

- Motors
- Turbochargers
- Generators
- Industrial Fans & Blowers
- Gear Boxes
- Pumps
- Compressors
- Cooling Towers

Features

- Dual alarms
- Easy alarm setup
- 3-digit LCD display
- Start-up trip delay (30 seconds), prevents false alarms
- Alarm trip delays (3 seconds) , filters out transients
- 4-20mA output
- LED alarm indication
- Remote alarm reset input
- Remote start input
- Displacement or Velocity response

DESCRIPTION

The 1-895 is a versatile multi-purpose vibration switch. It features a built-in accelerometer and solid state electronics. The 1-895 constantly monitors the vibration levels on critical machinery and provides timely feedback in the event of machine breakdown. There is a 30-second monitor start-up delay that is initiated by the application of power or the grounding of the start input. The 1-895 is available in a variety of ranges.

OPERATION

The 1-895 constantly monitors the vibration levels on critical machinery and provides timely feedback in the event of machine breakdown. There is a 30 second monitor start up delay that is initiated by the application of power or the grounding of the start input. The delay does not begin until the start input is released.

The current vibration level is displayed on a 3 digit LCD and output on a proportional 4-20 mA current loop. The alarm levels are set by two front panel push-buttons and the display. Two alarm indicators are present and indicate when an alarm level is exceeded. The corresponding output is also enabled. The alarms are latched and must be reset at the 1-895 or via a remote alarm reset input.

![Aero Support logo]

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Performance Specifications:

Velocity:	inches per second (ips), peak	**Power:**	18-30 VDC @ 125 mA
Acceleration:	g's, peak	**Temperature Operating:**	-18°C to +85°C
Displacement:	mils, peak-peak	**Temperature Storage:**	-55°C to +85°C
Frequency Range:	5 Hz to 500 Hz ±3 dB (internal sensor)	**Humidity:**	0 to 95% RH non-condensing
		I/O Connections	
Alarm Set points:	User programmable 0 - full scale	**Power Connections:**	+24 VDC, -Return (24 VDC)
Alarm Outputs:	Dual alarm relays are isolated from system electronics.	**Analogue Output:**	4-20 mA+, 4-20mA-
Analogue Output:	4-20 mA current loop proportional to the full scale output.	**Control Inputs:**	Start Input, Reset Input
		Alarms:	1 Out -
Alarm reset / start inputs:	External inputs must be shorted to return to activate.		1 Out +
			2 Out -
Display:	3-digit LCD display		2 Out +

Ordering Information:

VIBRATION SWITCH   P/N   1 - 895 -   A   B   C C

Sensor Input Type
0 = Internal Sensor

Remote Sensor Options:

1 = 100 mV/g	Constant current (use CEC model 4-160)
2 = 100 mV/ips	Constant current (use CEC model 4-161)
3 = 100 mV/ips	velocity coil
4 = 145 mV/ips	velocity coil (use CEC model 4-130, 4-131, 4-137, 4-138-0002)
5 = 150 mV/ips	velocity coil (use CEC model 4-131-0103, 4-138-0003)
6 = 200 mV/ips	velocity coil (use CEC model 4-131-0116, 368925, 4-138-0004)

Relay Type (solid state, optically isolated):
0 = DC contact rating is 3 to 60 Vdc @ 1 Amp
1 = AC contact rating is 12 to 240 Vac @ 1 Amp

Output Type (full Scale Range & Unit of Measure):

Displacement	Velocity	Acceleration	Velocity (metric units)
0 1 = 0 to 5 mils, pk-pk	1 0 = 0 to 0.5 ips, peak	2 1 = 0 to 5 g's, peak	3 1 = 3 to 40 mm/s, peak
0 2 = 0 to 10 mils, pk-pk	1 1 = 0 to 1 ips, peak	2 2 = 0 to 10 g's, peak	3 2 = 6 to 80 mm/s, peak
0 3 = 0 to 20 mils, pk-pk	1 2 = 0 to 2 ips, peak	2 3 = 0 to 25 g's, peak	
0 4 = 0 to 150 mils, pk-pk	1 3 = 0 to 5 ips, peak	2 5 = 0 to 5 g's, rms	
0 5 = 0 to 100 mils, pk-pk	1 4 = 0 to 10 ips, peak	2 6 = 0 to 10 g's, rms	
	1 5 = 0 to 1.5 ips, rms		
	1 6 = 0 to 3 ips, rms		

Note: Special configurations can be accomodated. Please contact Aero Support for assistance.

Example:

Part Number   1 - 895 - [0] [0] [1] [2]

The example unit is housed in an explosion proof enclosure. The switch has the internal sensor and DC relay contacts. The display and 4 - 20 mA output are scaled 0 to 2 ips, peak velocity.

Dimensions:
(inches)