



1-895

Vibration Switch



Applications

- Industrial Fans
- Compressors
- Centrifugal Pumps
- Motors
- Cooling Towers

Features

- Dual Alarms
- 3-digit LCD display
- 30-second start-up trip delay, prevents false alarms
- 4-20 mA output
- Velocity or Displacement 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 is available in a variety of ranges.

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.

Monitoring Systems



1-895 Vibration Switch

Performance Specifications

Vibration Range (See ordering guide)

Velocity:	inches per second (ips), peak
Acceleration:	g's, peak
Displacement:	mils, peak-peak
Frequency Range:	5 Hz to 500 Hz \pm 3 dB (internal sensor)
Alarm Setpoints:	User programmable 0 - full scale
Alarm Outputs:	Dual alarm relays are isolated from system electronics
Analog Output:	4-20 mA current loop proportional to the full scale output
Alarm reset / start inputs:	External inputs must be shorted to return to activate
Display:	3-digit LCD display
Power:	18-30 VDC @ 125 mA
Temperature Range	
Operating:	0°F to +185°F (-18°C to +85°C)
Storage:	-67°F to +185°F (-55°C to +85°C)
Humidity:	0 to 95% relative humidity non-condensing

I/O Connections

Power Connections:	+24 VDC -Return (24 VDC)
Analog Output:	4-20 mA+ 4-20 mA-
Control Inputs:	Start Input Reset Input
Alarms:	1 Out - 1 Out + 2 Out - 2 Out +

Ordering Information

In keeping with CEC's policy of continuing product improvement, specifications may be changed without notice.

ORDERING GUIDE		P/N 1-895 -																																		
		A	B	C	C																															
A	SENSOR INPUT TYPE																																			
	0 = Internal Sensor Remote Sensor Options 1 = 100 mV/g constant current (use with CEC model 4-160) 2 = 100 mV/ips constant current (use with CEC model 4-161) 3 = 100 mV/ips velocity coil 4 = 145 mV/ips velocity coil (use with CEC model 4-130/137, 4-131, 4-138-0002) 5 = 150 mV/ips velocity coil (use with CEC P/N 4-131-0103, 4-138-0003) 6 = 200 mV/ips velocity coil (use with CEC P/N 4-131-0116, 368925, 4-138-0004)																																			
B	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																																			
C	OUTPUT TYPE (Full Scale Range & Unit of Measure)																																			
	<table border="0"> <tr> <td>Displacement</td> <td>Velocity</td> <td>Acceleration</td> <td>Velocity (Metric Units)</td> </tr> <tr> <td>01 = 0-5 mils, pk-pk</td> <td>10 = 0-0.5 ips, peak</td> <td>21 = 0-5 g's, peak</td> <td>31 = 3-40 mm/s, peak</td> </tr> <tr> <td>02 = 0-10 mils, pk-pk</td> <td>11 = 0-1 ips, peak</td> <td>22 = 0-10 g's, peak</td> <td>32 = 6-80 mm/s, peak</td> </tr> <tr> <td>03 = 0-20 mils, pk-pk</td> <td>12 = 0-2 ips, peak</td> <td>23 = 0-25 g's, peak</td> <td></td> </tr> <tr> <td>04 = 0-150 mils, pk-pk</td> <td>13 = 0-5 ips, peak</td> <td>25 = 0-5 g's, rms</td> <td></td> </tr> <tr> <td>05 = 0-100 mils, pk-pk</td> <td>14 = 0-10 ips, peak</td> <td>26 = 0-10 g's, rms</td> <td></td> </tr> <tr> <td></td> <td>15 = 0-1.5 ips, rms</td> <td></td> <td></td> </tr> <tr> <td></td> <td>16 = 0-3 ips, rms</td> <td></td> <td></td> </tr> </table>	Displacement	Velocity	Acceleration	Velocity (Metric Units)	01 = 0-5 mils, pk-pk	10 = 0-0.5 ips, peak	21 = 0-5 g's, peak	31 = 3-40 mm/s, peak	02 = 0-10 mils, pk-pk	11 = 0-1 ips, peak	22 = 0-10 g's, peak	32 = 6-80 mm/s, peak	03 = 0-20 mils, pk-pk	12 = 0-2 ips, peak	23 = 0-25 g's, peak		04 = 0-150 mils, pk-pk	13 = 0-5 ips, peak	25 = 0-5 g's, rms		05 = 0-100 mils, pk-pk	14 = 0-10 ips, peak	26 = 0-10 g's, rms			15 = 0-1.5 ips, rms				16 = 0-3 ips, rms					
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NOTE: Special configurations can be accommodated. Please consult the factory for assistance.

Example: P/N 1-895 - 0 0 1 2

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

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Hazardous Approvals



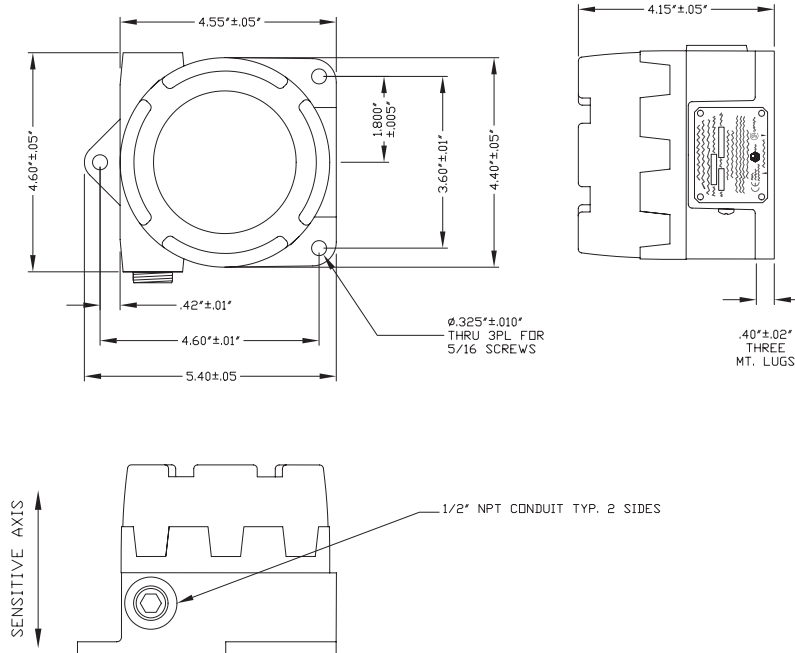
North America

CSA C/US Class I, Division 2, Groups A, B, C and D
Temp code T5; Max Ambient +85°C



European

ATEX EEx d IIC T5
Ta = -40°C to +85°C



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