

# Low-frequency accelerometer





## 797L series

### SPECIFICATIONS

<b>Sensitivity, <math>\pm 5\%</math>, 25°C</b>		500 mV/g
<b>Acceleration range</b>		10 g peak
<b>Amplitude nonlinearity</b>		1%
<b>Frequency response:</b>	$\pm 5\%$	0.6 - 850 Hz
	$\pm 10\%$	0.4 - 1,500 Hz
	$\pm 3$ dB	0.2 - 3,700 Hz
<b>Resonance frequency</b>		18 kHz
<b>Transverse sensitivity, max</b>		7% of axial
<b>Temperature response:</b>	-50°C	-8%
	+120°C	+5%
<b>Power requirement:</b>		
Voltage source		18 - 30 VDC
Current regulating diode		2 - 10 mA
<b>Electrical noise, equiv. g:</b>		
Broadband	2.5 Hz to 25 kHz	12 $\mu$ g
Spectral	2 Hz	2.0 $\mu$ g/ $\sqrt{\text{Hz}}$
	10 Hz	0.6 $\mu$ g/ $\sqrt{\text{Hz}}$
	100 Hz	0.2 $\mu$ g/ $\sqrt{\text{Hz}}$
<b>Output impedance, max</b>		100 $\Omega$
<b>Bias output voltage</b>		10 VDC
<b>Grounding</b>		case isolated, internally shielded
<b>Temperature range</b>		-50° to +120°C
<b>Vibration limit</b>		250 g peak
<b>Shock limit</b>		2,500 g peak
<b>Electromagnetic sensitivity, equiv. g</b>		5 $\mu$ g/gauss
<b>Sealing</b>		hermetic
<b>Base strain sensitivity</b>		0.001 g/ $\mu$ strain
<b>Sensing element design</b>		PZT ceramic / shear
<b>Weight</b>		148 grams
<b>Case material</b>		316L stainless steel
<b>Mounting</b>		1/4-28 captive socket head
<b>Mating connector</b>		R6 type
<b>Recommended cabling</b>		J9T2A

**Accessories supplied:** #12105-01 captive socket head (metric mounting available); calibration data (level 3)

### Certifications

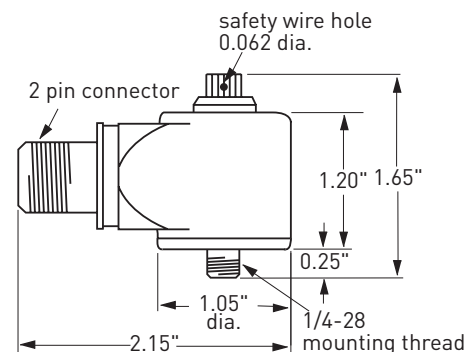
All 797L models	797LE	797L-33	797L-35
	 Class I, II, III, T4 Div 1 Groups A, B, C, D, E, F, G Div 2 Groups A, B, C, D, F, G	 Class I, Div 1 Groups A, B, C, D	 II 1 G Ex ia IIC T4 Ga Tamb: -50°C to 120°C

Note: Due to continuous process improvement, specifications are subject to change without notice.  
This document is cleared for public release.



### Key features

- Certified versions available for use in hazardous areas (models 797LE, 797L-33, 797L-35)
- Ultra low noise electronics
- Manufactured in ISO 9001 facility



### Connections

Function	Connector pin / cable conductor color
power/signal	A / white
common	B / black
ground	shell / shield

For Hazardous area installations the transducer must be installed per 11537.

The model 797L-35 transducer must not be subjected to an acceleration greater than 1200g and must be mechanically protected so that it is not subjected to impacts greater than 2 J energy.