

## AV3032 Series Miniature Vibration Sensor

- in IEPE\*\* Technology
- sensitivity 5 mV/g or 10 mV/g
- quartz element type in shear technology
- low weight
- adhesive mounting
- with calibration certificate



### ■ Specifications AV3032x

#### Performance:

Model	x = A	x = A1
Sensitivity, $\pm 10\%$ * <sup>1</sup>	10 mV/g	5 mV/g
Range F.S. (for $\pm 5$ V out)	$\pm 500$ g	$\pm 1000$ g
Frequency response:		
$\pm 10\%$		1 ... 10000 Hz
$\pm 3$ dB		0.66 ... 12000 Hz
Mounted resonant frequency, nom.		40 kHz
Equivalent electrical noise (resolution)		0.007 g eff.
Amplitude non-linearity, max. * <sup>2</sup>		2.0 % F.S
Transverse sensitivity, max.		5 %
Strain sensitivity	0.001 g per microstrain (1 $\mu\text{m}/\text{m}$ ) at 250/ $\mu\sigma$	

#### Physical:

Model	x = A / A1
Weight, less cable	approx. 1.5 gram
Weight, including cable	approx. 5.6 gram
Size (hex x height)	approx. 6.4 x 7.1 mm (0.25 x 0.28 inch)
Mouting provision	adhesive mount
Electrical connection	integr.cable (length approx. 45 cm (18 inches)) with coaxial connector (10-32, UNF-2A, Jack)
Material case/cap	Titanium
Element type	quartz shear

\*1 Measured at 1 g rms at 100 Hz per ISA RP 37.2

\*2 Zero based best fit st. line method

\*\* IEPE = internal electronics piezoelectric

## Environmental:

Model	x = A	x = A1
Maximum vibration	1000 g rms	1500 g rms
Maximum shock	1500 g peak	2000 g peak
Temperature range	-50 ... +120 °C (-60 ... +250 °F)	
Thermal coefficient of sensitivity	0.11 %/°C (0.06 %/°F)	
Sealing	epoxy / welded	

## Electronical

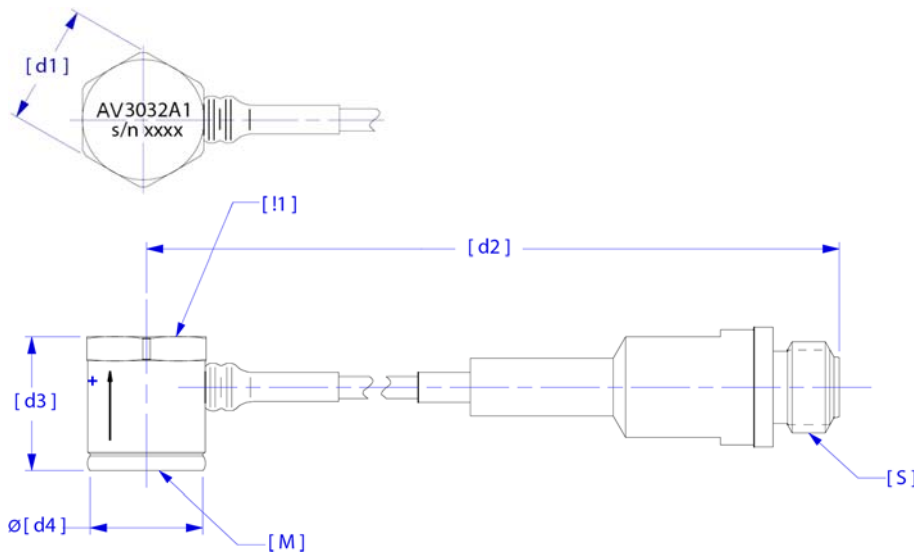
Model	x = A / A1
Excitation current range	2 ... 20 mA
Excitation (compliance) voltage range	+20 ... +30 VDC
Output impedance, nom.	100 Ω
Output Bias voltage, ±2 V	10 VDC
Discharge time constant, min.	0.5 s
Output signal polarity	positive going for acceleration towards top

### Note!

Power only with IEPE power unit from ALTHEN or other, compatible constant current type power unit. If power is applied with a non-compatible power unit, e.g. without current limiting, the internal amplifier will be destroyed immediately.

A calibration certificate traceable to **NIST** is supplied with each instrument.

## ■ Dimensions



!1 Do not mount on this surface!

S 10-32 connector

M Mounting surface

d1\* hex 6.4 mm (0.250 inch)

d2\* 457 mm ±12.7 mm (18.00 inch ±0.50 inch)

d3\* 7.1 mm (0.28 inch)

d4\* Diameter 5.99 mm (0.236 inch)

\*all dimensions are approx. values.

Our policy is to improve specification of our products continuously, so technical and production details can be changed without any notice.