

AV3023M25T

Triaxial Miniature Vibration Sensor, IEPE Technology, with TEDS



- **Measurement range ± 500**
- **Sensitivity 10 mV/g**
- **Frequency range 1.5 ... 10.000 Hz**
- **Residual noise (rms) 0.0095 g**
- **Weight, approx. 6.2 grams**
- **Stud mounting**
- **Operating temperature -50 °C ... +120 °C**

■ Specifications AV3023x

Dynamic Specification

Sensitivity -10 % / +15 % ^{*2} :	10.0 mV/g
Range, FS (each axis):	± 500 g
Linearity ^{*3}	1 % FS
Frequency range-5 % /+15 %	Axis 1 and 2: 1.5 ... 5000 Hz Axis 3: 1.5 ... 10000 Hz
Resonant frequency, nom.:	40 kHz
Transverse sensitivity, max.:	5 %

Electrical Data

Supply voltage, per axis:	+18 ... +30 VDC
Constant current supply, per axis ^{*4} :	2 ... 20 mA
Residual noise, RMS:	0.0095 g
Output impedance, nom.:	100 Ω
Output bias voltage, nom.:	+10 VDC
Discharge time constant, nom.:	0.3 s
Ground isolation:	case grounded
IEPE** sensor with TEDS feature acc. to IEEE 1451.4:	yes

Environmental

Operating temperature:	-50 ... +120 °C (-60 ... +250 °F)
Vibration limit:	± 600 g peak
Destruction limit:	5000 g peak
Environmental sealing:	IP67

Physical Data

Weight in Gram, approx.	6.2
Dimensions	see table below
Mounting	internal 5-40 thread, incl. adapter M3
Connector ^{*1}	4-Pin
Material housing / connector	titanium alloy

**IEPE = internal electronics piezoelectric

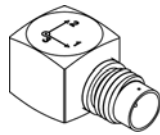
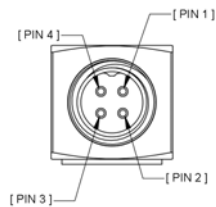
*1 Connector mates with ALTHEN cable assembly. Model AV6811Axx (xx = length in ft)

*2 Reference sensitivity measured at 100 Hz, 1 g rms per ISA RP 37.2

*3 Linearity is % of specified full scale (or any lesser full scale range), zero-based best fit straight line method.

*4 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.

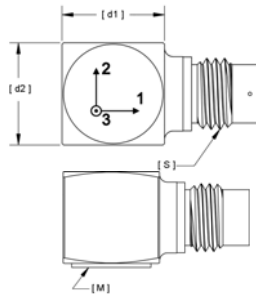
Electrical Connection



Pin connection

Pin 1	GND return common
Pin 2	Y axis output (2)
Pin 3	Z axis output (3)
Pin 4	X axis output (1)

Dimensions



Model	[d1]*	Dimensions [d2]*	[d3]*	Connector [S]	Mounting [M]
AV3023M25T	11.4 mm (0.45 inch)	11.4 mm (0.45 inch)	12.2 mm (0.48 inch)	1/4-28 connector	5-40 UNC-2B tapped hole, approx. 3 mm deep, incl. adapter M3

*all dimensions are approx. values.

Due to continual product development, ALTHEN and partners reserve the right to vary the foregoing details without prior notice.