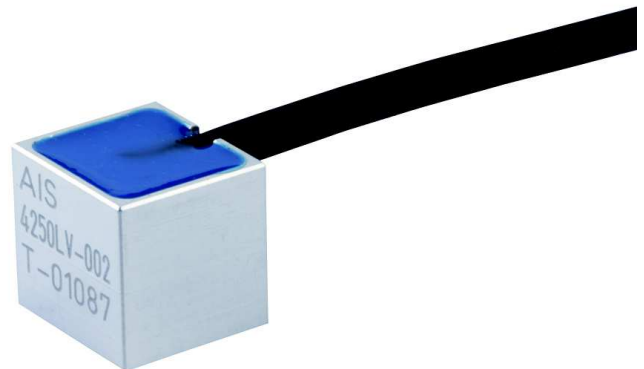


Capacitive Accelerometer - Uniaxial

AIS 4250LV

- **NEW GENERATION**
- Ultra LOW NOISE -Vibration
- Temperature Compensated
- Aluminium Package
- Amplified Output
- Highly Shock Resistant
- Ranges ± 2 g to ± 200 g



APPLICATIONS

- **Vibration Sensing**
- HUMS
- Automotive testing
- Industrial testing
- Railway technology
- Aerospace flight & flutter testing

Service

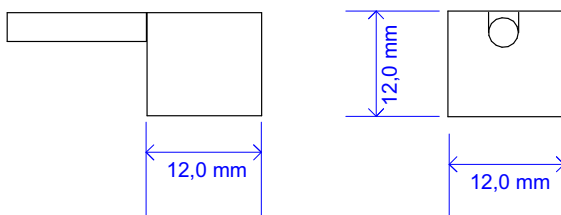
Pendulum Calibration
Sinusoidal Calibration

Features

The model **AIS 4250LV** is a new extra high end product dedicated to applications in the domains of **vibration sensing**.

The model AIS 4250LV is manufactured with an improved chip technology with high stability and a low noise level as well as a improved bias and scale factor coefficient. This sensor has been specifically designed to provide a wide bandwidth. For the ± 100 g version the bandwidth is >1.0 kHz @ 5%.

Optional we can offer additional **temperature compensation up to 150°C** in different housings.



AIS 4250LV Ultra Low Noise									
Range	2	10	30	50	100	200			g
Resonant frequency	1.3	2	4	5.1	7.2	11			kHz
Sensitivity	1000±8	200±2	66,6±1	40±1	20±	10±			mV/g
Output Noise typ.	25	25	25	25	25	25			µV/√Hz
Output Noise max. 0;400 Hz	27	27	27	27	27	27			
Non Linearity % of FS max.	<1	<1	<1	<1	<1	<1			% of FS max
One year scale factor stability [1]	150	150	150	150	150	150			ppm typ.
Scale factor temp. coefficient [2]	100	100	100	100	100	100			ppm/°C
	-50/250	-50/250	-50/250	-50/250	-50/250	-50/250			min/max
Bandwidth +/- 5% [3]	0 to >250 Hz 002g and 0 to >1000 Hz for 10g,30g,50g,100g and 200g								
Bias temp. coefficient typ.	<0.1	<0.5	<1.5	<2.5	<5	<10			typ. mg/°C
	±0.4	±2	±6	±10	±20	±40			max mg/°C
Input axis misalignment	1	1	1	1	1	1			% max.

Supply Voltage	9 to 24 Volts
ESD sensitivity	Class 2
Output Impedance / load	Min. 50kOhm at Vout / Max. 50pF at Vout
Operating Current	< 400µA at 5 VDC
Max. Mechanical Shock (0.1)ms	6000 g (0.15ms half-sine period 1ms)
Operating Temperature	-40°C to 90°C
Material Housing	Aluminium
Weight Sensor	4 grams
Material Cable	Polyurethane
Weight Cable nom. each meter	14 grams

[1] One year stability according to IEEE 528-2001: turn on /on, storage at -55°C to 125°C T cycling, -55°C to 85°C unpowered harass, vibration, shock.

[2] Temperature coefficients are specified for a range of -40°C to 20°C, where temperature behaviour is typically linear.

[3] The bandwidth is defined as a frequency band for which the sensitivity has decreased by less than 5%

Cable Code
Supply + = Red
Supply - = Black
Output + = Green
Output - = White

Ordering information

AIS 4250LV-XXX-XXX
 └── Cable Length and Pinout
 └── Range
 └── Model Ultra Low Noise

subject to change October 2012

