# Capacitive Accelerometer



# ASC 5521 3 ASC 5525

New Generation Triaxial 5 or 12 wire system Amplified Output Aluminium Housing New Generation Triaxial 5 or 12 wire system Amplified Output Stainless steel Housing



#### **Features**

- Range: 2g to 200g
- High Shock Resistant
- Gas damping
- DC response
- ASCTeds Module
- Water Protection iP67

#### New Generation:

- Excellent Bias Stability
- Excellent Scale Factor Stability
- Low Power Consumption
- Low Noise

#### **Options**

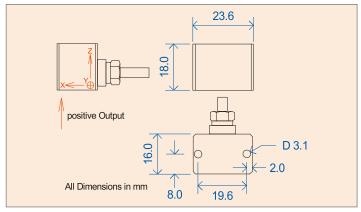
- customized cable length
- customized connector
- ASCTeds Sensor ID Module
- Dallas ID

#### **Service**

- Pendulum calibration
- Sinusoidal calibration

## **Applications**

- Train Control
- Automotive
- Environment
- Aerospace
- Engineering



### Description

The models ASC 5521 and ASC 5525 are triaxial accelerometers based on a capacitive technology. Each of the three axes is working independently in the case of the 12 wire system. Furthermore its housing is splash-proof and therefore the sensor is ideal for automotive comfort testing as well as truck testing. The housing provides environmental sealing to IP67. The ASC 5521 and ASC 5525 are manufactured with an improved chip technology. Both ASC accelerometers therefore benefit from the high stability of the new chip technology with a low noise level and a low bias and scale factor temperature coefficient.

The ASC 5521 and ASC 5525 are over a wide temperature range fully compensated and factory calibrated. Because capacitive technology is used, extremely small measuring ranges are possible. The amplified output is easy to use with a data acquisition unit. The signal is independent from the power between +8 VDC to +30 VDC. A very high flexible and rugged cable provides a simple mounting. The ASC 5521 and ASC 5525 are equipped as standard with 6m cable.

### **General Technical Data**

Supply Voltage			8 VDC - 30 VDC
Operation Current max.			2 mAmp
Linearity:typ. FSO			< 0.8%
Damping Ratio typ.			0.7
Transvers Sensitivity: typ.			2%
Signal Output			+/- 2,000 VDC FSO
Zero Output			2,500 mV +/-10 mV
Reference Output			2,500 mV
Output Impedance			10 k0hm
TC Span			all 100 ppm/°C typ.
Noise			17 μVRootHz
Shock Resistant			7,000g
Operating Temperature			-20° C to +100° C
Storage Temperature			-40° C to +120° C
Weight	Housing	ASC 5521: ASC 5525:	22 gram 42 gram
	Cable	5 wire system 12 wire system	12 gram/meter 30 gram/meter
Material	Housing	ASC 5521: Alumir ASC 5525:	nium, hard anodized Stainless steel
	Cable	AWG 5 wire system 12 wire system	30, Polyuithan (PU) diameter 3.0 mm, diameter 4.4 mm
Housing	dimensions	23.6 mm >	x 16.0 mm x 18.0 mm

At 10 VDC Supply and 25° C

### Individual Technical Data

Range +/-2 g	Sensitivity	1000 mV/g
	Frequency +/- 5%	100 Hz
	TC Zero	0.1 mg/° C typ.
Range +/-5 g	Sensitivity	400 mV/g
	Frequency +/- 5%	100 Hz
	TC Zero	0.3 mg/° C typ.
Range +/-10 g	Sensitivity	200 mV/g
	Frequency +/- 5%	150 Hz (1,000 Hz optional avail.)
	TC Zero	0.5 mg/° C typ.
Range +/-30 g	Sensitivity	66 mV/g
	Frequency +/- 5%	1,000 Hz
	TC Zero	1.5 mg/° C typ.
Range +/-50 g	Sensitivity	40 mV/g
	Frequency +/- 5%	1,500 Hz
	TC Zero	2,5 mg/° C typ.
Range +/-100 g	Sensitivity	20 mV/g
	Frequency +/- 5%	1,500 Hz
	TC Zero	5,0 mg/° C typ.
Range +/-200 g	Sensitivity	10 mV/g
	Frequency +/- 5%	1,700 Hz
	TC Zero	10 mg/° C typ.

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Cable Code 12 wire systemBlackSupply -(4 per axis):Greensignal +RedSupply +Whitesignal -

1 Model: ASC 5521: aluminium, ASC 5525: stainless steel

2 Range: e.g. 050 is 50g

3 Cable: Length in Meter

4 Connector and Pinout / "A" is for No Connector