

3-Axis MEMS Accelerometer

Specifications

- ◆ X, Y, Z-Axis 3CH output
- ◆ Offset adjustment
- ◆ Integrated power supply
- ◆ +5V DC power input & Power LED
- ◆ ±4V differential or 0.5V - 4.5V single ended outputs or 4 - 20 mA
- ◆ Galvanized isolation
- ◆ Responds to DC & AC Acceleration
- ◆ ±2g, ±5g, ±10g, ±25g, ±50g, ±100g customized model



Small Type



Large Type

Input Range [g]	Frequency Response [Hz, Nominal, 3dB]	Sensitivity [Differential, mV/g]	Output Noise, Differential [RMS, µg/(root Hz)]	Max. Mechanical Shock [g]
±2	0 ~ 400	2000	5	2000
±5	0 ~ 600	800	7	
±10	0 ~ 1000	400	10	5000
±25	0 ~ 1500	160	25	
±50	0 ~ 2000	80	50	
±100	0 ~ 2500	40	100	

PARAMETER		MIN	TYP	MAX	UNITS
Cross Axis Sensitivity			2	3	%
Bias Calibration Error	-002		2	4	% of span
	-005 thru -400		1	2	
Bias Temperature Shift (Tc=-55 to +125°C)	-002		100	300	(ppm of span)/ °C
	-005 thru -400		50	200	
Non-Linearity (-90 to +90% of Full Scale)	-002 thru -050		0.15	0.5	% of span
	-100		0.25	1.0	
	-200		0.40	1.5	
	-400		0.70	2.0	
Power Supply Rejection Ratio			25		dB
Output Impedance			90		Ω
Operating Voltage		4.75	5.0	5.25	Volts
Operating Current (I _{DD} +I _{VR})			8	10	mA

Case Operating Temperature	-55 to +125 °C
Acceleration Over-range	2000g for 0.1 ms
Voltage on V _{DD} to GND	-0.5V to 6.5V
Voltage on Any Pin (except DV) to GND	-0.5V to V _{DD} +0.5V
Voltage on DV to GND	±15V
Power Dissipation	50 mW



Power Supply Unit for 3-Axis Accelerometer

- ◆ 3CH MEMS sensor signal input (LEMO)
- ◆ Typical input: ±2g, 2000mV/g, 0~400Hz range
- ◆ 3CH signal output (BNC, ±5V)
- ◆ Differential amplifier (x1.25 gain)
- ◆ 1g offset adjustment
- ◆ DC 9~12V or 9V battery power input
- ◆ Power switch & Power LED (low battery alert)
- ◆ OKW A9406352 case + aluminum panel

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