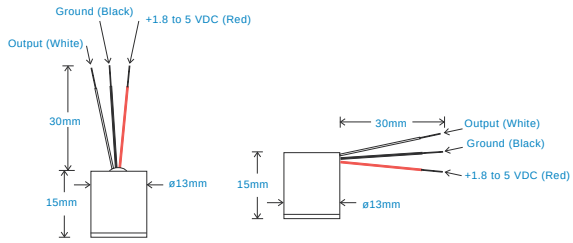
MS Accelerometer Capsules

AC Acceleration Output

MS-004 Low Power Capsule



Mechanical

Case Material	Stainless Steel
Sensing Element/Construction	PZT/Shear
Weight	18gms (nominal)

Technical Performance

Mounted Base Resonance	see 'How To Order' table (nominal)
Sensitivity	see: 'How To Order' table ±10%
	Nominal 80Hz at 22°C
Frequency Response	0.3Hz (18cpm) to 15kHz (900kcpm) ± 3dB
Isolation	Base isolated
Range	see: 'How To Order' table @ 5V power
Transverse Sensitivity	Less than 5%
Broadband Resolution	<500 µg
Amplitude Linearity	±1%

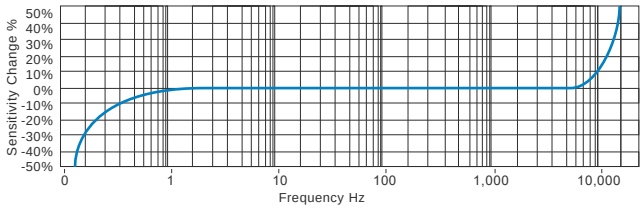
Electrical

Electrical Noise	< 500µg
Power Requirements	see: 'How To Order' table
Current Consumption	100µA nominal at 5V supply (60µA at 1.8V)
Bias Voltage	50% of supply voltage
Settling Time	1 second
Output Impedance	100 Ohms max.
Case Isolation	>108 Ohms at 500 Volts

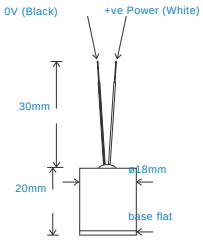
Environmental

Operating Temperature Range	-40 to 120ºC
Sealing	IP55
Maximum Shock	5000g
EMC	EN61326-1:2013
Electromagnetic Sensitivity	150 µg/gauss

Typical Frequency Response (at 100mV/g)



MS-050 Accelerometer Capsule



Mechanical

Case Material	Stainless Steel
Sensing Element/Construction	PZT/Compression
Weight	34gms (nominal)

Technical Performance

Mounted Base Resonance	see 'How To Order' table (nominal)
Sensitivity	see: 'How To Order' table ±10%
	Nominal 80Hz at 22°C
Frequency Response	1.5Hz (90cpm) to 15kHz (900kcpm) ± 5%
	0.5Hz (30cpm) to 17kHz (1,020kcpm) ± 10%
	0.2Hz (12cpm) to 20kHz (1,200kcpm) ± 3dB
Isolation	Base isolated
Range	see: 'How To Order' table
Transverse Sensitivity	Less than 5%

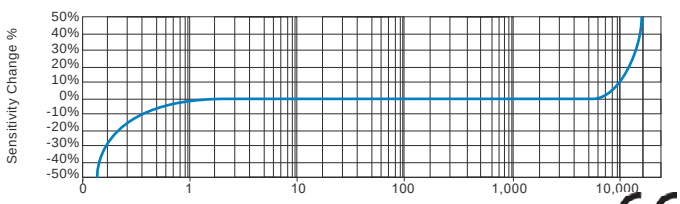
Electrical

Electrical Noise	0.1mg max
Current Range	0.5mA to 8mA
Bias Voltage	10-12 Volts DC
Settling Time	1 second
Output Impedance	200 Ohms max.
Case Isolation	>10 Ohms at 500 Volts

Environmental

Operating Temperature Range	-40 to 120ºC
Sealing	IP55
Maximum Shock	5000g
EMC	EN61326-1:2013
Electromagnetic Sensitivity	150 µg/gauss

Typical Frequency Response (at 100mV/g)



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Reliability and Condition Monitoring Services

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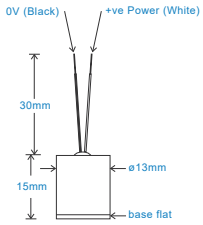
MS Accelerometer Capsules

AC Acceleration Output

MS-070 Premium Accelerometer Capsule



Mechanical

Case Material	Stainless Steel
Sensing Element/Construction	PZT/Shear
Weight	13gms (nominal)

Technical Performance

Mounted Base Resonance	see 'How To Order' table (nominal)
Sensitivity	see: 'How To Order' table ±10%
	Nominal 80Hz at 22°C
Frequency Response	1.5Hz (90cpm) to 14kHz (840kcpm) ± 5%
	0.5Hz (30cpm) to 16kHz (960kcpm) ± 10%
	0.2Hz (12cpm) to 19kHz (1,140kcpm) ± 3dB
Isolation	Base isolated
Range	see: 'How To Order' table
Transverse Sensitivity	Less than 5%

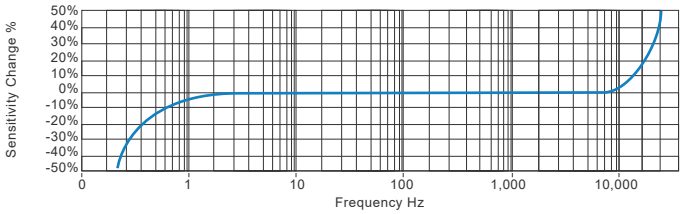
Electrical

Electrical Noise	0.1mg max
Current Range	0.5mA to 8mA
Bias Voltage	10-12 Volts DC
Settling Time	1 second
Output Impedance	200 Ohms max.
Case Isolation	>108 Ohms at 500 Volts

Environmental

Operating Temperature Range	-55 to 130ºC
Sealing	IP55
Maximum Shock	5000g
EMC	EN61326-1:2013

Typical Frequency Response (at 100mV/g)



Applications

Fans, Motors, Pumps, Compressors, Centrifuges, Conveyors, Air Handlers, Gearboxes, Rolls, Dryers, Presses, Cooling, VAC, Spindles, Machine Tooling, Process Equipment

Vibration sensor should be firmly fixed to a flat surface (spot face surface may be needed to be produced and cable anchored to sensor body.)

How To Order

Product Prefix
MS - Monition Sensors

Product Series
070 - Premium Accelerometer Capsule
004 - Low Power Accelerometer Capsule
050 - Accelerometer Capsule

Options (if required)
S - Side exit

M	S	X	X	X	X	X	X	X

Sensitivity		Range	Resonant Frequency	
010	- 10mV/g	±800g	36kHz	(2,160kcpm)
030	- 30mV/g	±250g	34kHz	(2,040kcpm)
050	- 50mV/g	±160g	32kHz	(1,920kcpm)
100	- 100mV/g	±80g	30kHz	(1,800kcpm)
250	- 250mV/g	±32g	28kHz	(1,680kcpm)
500	- 500mV/g	±16g	26kHz	(1,560kcpm)

Please note: Always refer to the products full datasheet. This comprehensive product sheet cannot display every technical aspect.