

Universal Testing Type Accelerometer

DETAILS

C02A02 C04A05 charge uniaxial acceleration sensor, using piezoelectric ceramic shear structure, with wide band frequency response, low sensitivity temperature response characteristics, high quality piezoelectric ceramics with long-term stability can ensure years of accurate measurement. The housing is laser welded stainless steel for high sealing grade and strength, with M5 mounting threads on the bottom.

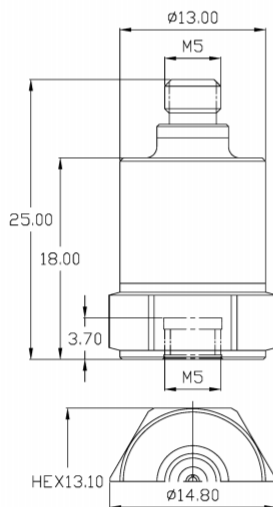
FEATURES

- Charge-type Universal Acceleration Sensor
- Standard series with multiple range options
- Shear structure
- Broadband response

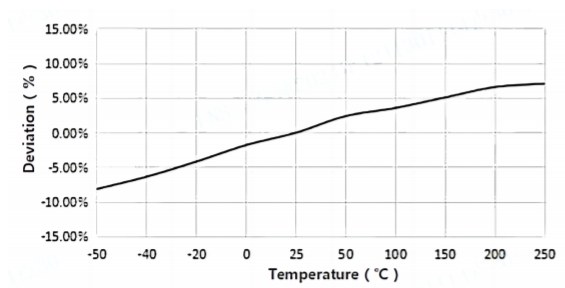
TYPICAL APPLICATIONS

- Environmental Stress Screening (ESS)
- Vibration Control
- Generalized High Temperature Vibration Monitoring

Fig_1 Dimensions of C02A02 C04A05

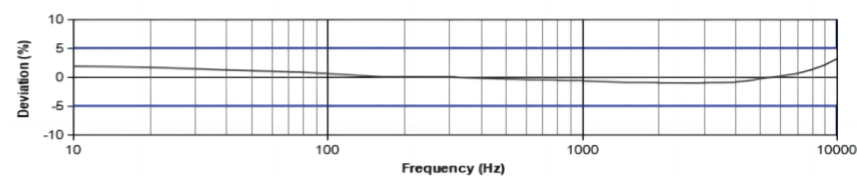


Fig_2 Typical Temperature Response



C02A02
C04A05

Fig_3 Typical Frequency Response



Specifications-C02A02&C04A05

MODEL NUMBER		UNIT	C02A02	C04A05
PERFORMANCE				
Sensitivity ¹		pC/g	10	30
		pC/(m/s ²)	1	3
Measurement Range		g	±500	±150
Non-Linearity ³		%	1	
Frequency Range	± 5%	Hz	0.5-10k	0.5-7k
	±10%		0.3-11k	0.3-9k
Resonance Frequency ²		Hz	≥50k	≥38k
Discharge Time Constant ²		s	-	
Transverse Sensitivity		%	≤5	
ELECTRICAL				
Capacitance		PF	1250	1700
Resistance		Ω	≥1×10 ¹¹	≥1×10 ¹¹
Electrical Isolation		Ω	-	-
ENVIRONMENTAL				
Sinusoidal Vibration Limit ⁴		g	650	300
Shock Limit ⁴		g	650	300
Temperature Range		°C	-70~160	
		°F	-94~320	
Temperature Response ²		%/°C	0.045	
PHYSICAL				
Sealing		-	Laser welding IP68	
Sensing Element		-	Piezoelectric ceramics	
Housing Material		-	Stainless steel	
Size	mm		HEX 13.1×25	HEX 13.1×25
	in		HEX 0.516×0.984	HEX 0.516×0.984
Electrical Connector		-	M5 Top (Opt. 10-32)	
Mounting Thread		-	M5 (Opt. 10-32)	
Weight ²		g	16	17
		oz	0.564	0.600

Additional Information

Note:

- @ 160Hz, 1g
- Typical values
- JBT 6822-2018 7.12.1 Vibration Testing Method
- References the mechanical structure of the sensor not being damaged in a non powered state, rather than in a working state

C02A02&C04A05

Supplied Accessories:

- Product Verification Report
- Install Screws

OPTIONAL VERSIONS

- A: 10-32 Output Connector
- E: 10-32 Mounting Threads

COMPLIANCE WITH STANDARDS



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