C0XY4X

Universal Testing Type Accelerometer

DETAILS

C02Y41 C04Y42 C05Y42 C08Y42 charge triaxial acceleration sensor, piezoelectric ceramic shear structure, with a wide band frequency response, smaller base strain and lateral sensitivity, low sensitivity temperature response characteristics, high-quality piezoelectric ceramics with long-term stability to ensure accurate measurement for many years. The shell is made of titanium alloy with lower density, and laser welding has good sealing property. Each of the three axial lines is equipped with calibration holes for easy calibration installation, and standard insulation installation components

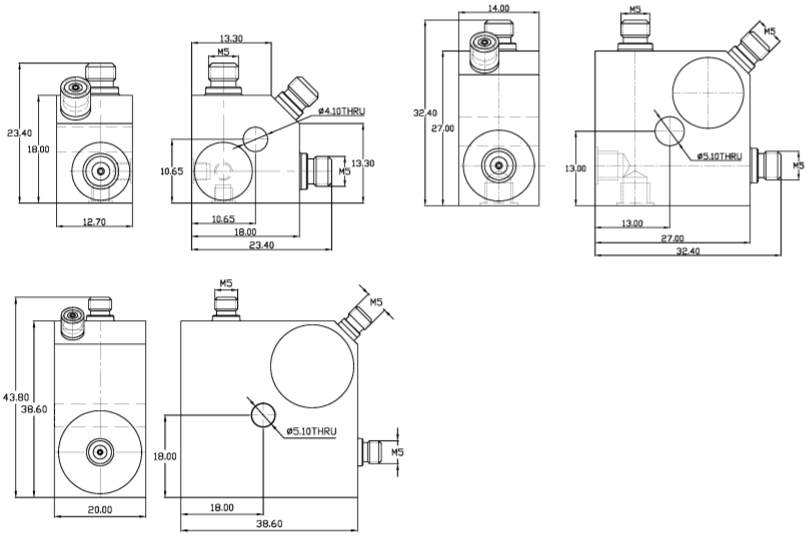
FEATURES

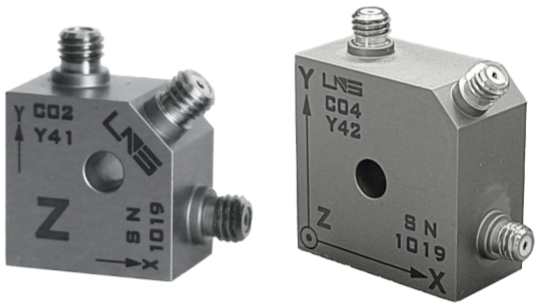
- General purpose vibration test triaxial charge output sensor
- The whole series uses memory alloy fasteners, shear structure, stable and reliable
- The low frequency of charge type sensor is determined by the low frequency characteristic of charge amplifier

TYPICAL APPLICATIONS

- Universal vibration monitoring
- Universal three-axis vibration measurement

Fig_1 Dimensions of C02Y41 C04Y42 C05Y42 C08Y40





C02Y41
C04Y42
C05Y42
C08Y40

Fig_2 Typical Temperature Response

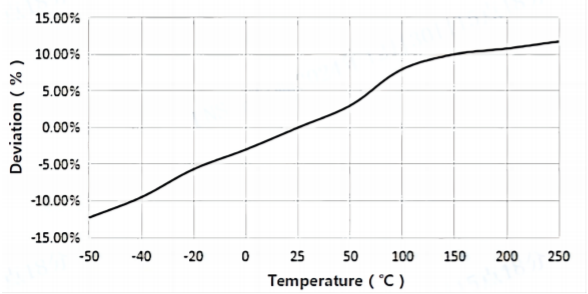
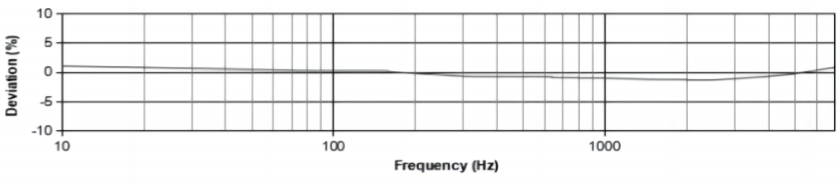


Fig_3 Typical Frequency Response



Specifications-C0XY4X

MODEL NUMBER		UNIT	C02Y41	C04Y42	C05Y42	C08Y40
PERFORMANCE						
Sensitivity [1]		pC/g	10	30	50	300
		pC/(m/s²)	1	3	5	30
Measurement Range		g	±1500	±1000	±800	±200
Non-Linearity [3]		%	1			
Frequency Range	± 5%	Hz	0.5-7k	0.5-5k	0.5-4k	0.5-1k
	±10%		0.3-8k	0.3-6k	0.3-5k	0.3-1.5k
Resonance Frequency [2]		Hz	≥30k	≥20k	≥18k	≥6k
Discharge Time Constant [2]		s	-			
Transverse Sensitivity		%	≤5			
ELECTRICAL						
Capacitance		PF	360	1700	1700	3500
Resistance		Ω	$\geq 1\times10^{11}$	$\geq 1\times10^{11}$	$\geq 1\times10^{11}$	$\geq 1\times10^{11}$
Electrical Isolation		Ω	-	-	-	-
ENVIRONMENTAL						
Sinusoidal Vibration Limit [4]		g	4000	3000	1600	300
Shock Limit [4]		g	6000	5000	2500	500
Temperature Range		℃	-50~250			
		℉	-58~482			
Temperature Response [2]		%/℃	0.06			
PHYSICAL						
Sealing		-	Laser welding IP68			
Sensing Element		-	Piezoelectric ceramics			
Housing Material		-	Titanium alloy			
Size		mm	18×18×12.7	27×27×14	27×27×14	38.6×38.6×20
		in	0.709×0.709 ×0.5	1.063×1.063 ×0.551	1.063×1.063 ×0.551	1.52×1.52 ×0.787
Electrical Connector		-	M5×3 (Opt. 10-32)			
Mounting Thread		-	4.1 THRU/M5	5.1 THRU/M5		
Weight [2]		g	20	47	56.5	150
		oz	0.705	1.658	1.993	5.291

Additional Information

Note:

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

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Supplied Accessories:

- Product Verification Report
- Install Screws

OPTIONAL VERSIONS

-A: 10-32 Output Connector

COMPLIANCE WITH STANDARDS

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