

Universal Testing Type Accelerometer

DETAILS

C00Y4X series charge triaxial impact acceleration sensor, the core adopts a unique shear structure, with a wide band frequency response, high resonant frequency, effectively reducing the zero drift phenomenon. The housing is made of titanium alloy with lower density and laser welding. Each of the three axial direction is equipped with calibration holes for easy calibration and installation, the series of products have a center hole for 360° mounting, standard with insulated mounting components.

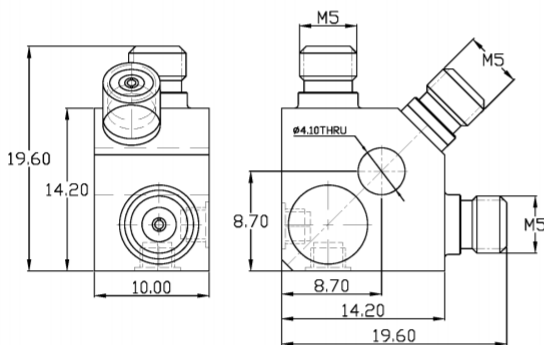
FEATURES

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

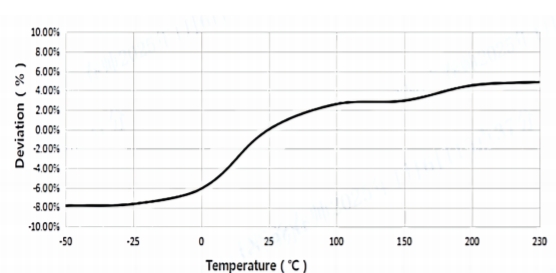
TYPICAL APPLICATIONS

- Light-weight impact table
- Medium-weight impact table
- Burst test

Fig_1 Dimensions of C00Y4X

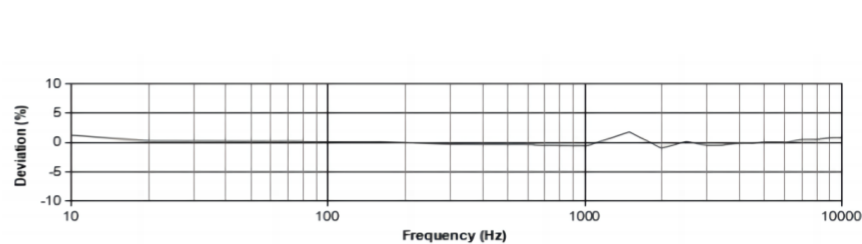


Fig_2 Typical Temperature Response



C00Y4X

Fig_3 Typical Frequency Response



Specifications-C00Y4X

MODEL NUMBER	UNIT	C00Y40	C00Y41	C00Y42
PERFORMANCE				
Sensitivity ¹	pC/g	0.3	0.5	1
	pC/(m/s ²)	0.03	0.05	0.1
Measurement Range	g	±20000	±10000	±5000
Non-Linearity ³	%	per10000g 3% 1		
Frequency Range	± 5%	Hz	-	-
	±10%		5-11k	5-11k
Resonance Frequency ²	Hz	≥85k	≥85k	≥85k
Discharge Time Constant ²	s	-		
Transverse Sensitivity	%	≤5		
ELECTRICAL				
Capacitance	PF	180	300	150
Resistance	Ω	≥1×10 ¹¹	≥1×10 ¹¹	≥1×10 ¹¹
Electrical Isolation	Ω	-	-	-
ENVIRONMENTAL				
Sinusoidal Vibration Limit ⁴	g	-	-	-
Shock Limit ⁴	g	25000	20000	12000
Temperature Range	°C	-50-230		
	°F	-58-446		
Temperature Response ²	%/°C	0.06		
PHYSICAL				
Sealing	-	Laser welding IP68		
Sensing Element	-	Piezoelectric ceramics		
Housing Material	-	Titanium alloy		
Size	mm	14.2×14.2×10	14.2×14.2×10	14.2×14.2×10
	in	0.559×0.559×0.394	0.559×0.559×0.394	0.559×0.559×0.394
Electrical Connector	-	M5×3 (Opt. 10-32)		
Mounting Thread	-	4.1THRU/M5		
Weight ²	g	8	8	8
	oz	0.282	0.282	0.282

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

C00Y4X

Supplied Accessories:

- Product Verification Report
- Install Screws

OPTIONAL VERSIONS

-A: 10-32 Output Connector

COMPLIANCE WITH STANDARDS



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