

Embedded Accelerometer

DETAILS

The B05H01 embedded accelerometer features a compact design that provides enhanced monitoring and protection. It incorporates a compressed-type sensor element inside a stainless steel housing, which is hermetically sealed via laser welding. This design ensures the sensor's durability and wide-band performance, guaranteeing stable and reliable operation.

FEATURES

- Integrated small built-in
- Compact core
- Embedded design with pin-type outputs
- Small size and light weight
- Multiple sensitivity options available: 10–100 mV/g

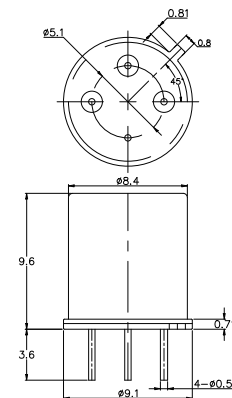
TYPICAL APPLICATIONS

- Modal testing
- Small-structure testing

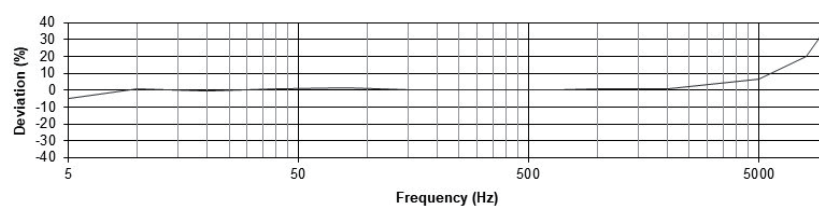
Fig_1 Picture of B05H01



Fig_2 Dimensions of B05H01



Fig_3 Typical Frequency Response



Specifications-B05H01

MODEL NUMBER		UNIT	B05H01
PERFORMANCE			
Sensitivity ¹		mV/g	50(±10%)
		mV/(m/s²)	5
Measurement Range		g	±25
Broadband Resolution ²		g rms	0.0002
Non-Linearity ³		%	1
Frequency Range	± 5%	Hz	-
	±3dB		1-13k
Resonance Frequency ²		Hz	≥25k
Discharge Time Constant ²		s	≤1
Transverse Sensitivity		%	≤5
ELECTRICAL			
Excitation Voltage		VDC	3-5.5
Constant Current Excitation		mA	-
Output Impedance		Ω	≤1000
Output Bias Voltage		V	2.5
Electrical Isolation		Ω	-
Spectral Noise ²	10Hz	μg/√Hz	12
	100Hz		4.8
	1000Hz		3.2
ENVIRONMENTAL			
Sinusoidal Vibration Limit ⁴		g rms	500
Shock Limit ⁴		g pk	5000
Temperature Range		°C	-50-120
		°F	-58-248
Temperature Response ²		-	See typical curve
PHYSICAL			
Sealing		-	Laser welding IP68
Sensing Element		-	Piezoelectric ceramics
Housing Material		-	Stainless steel
Size	mm		φ9.1*13.2
	in		φ0.358*0.520
Electrical Connector		-	Pin-out
Mounting Thread		-	Pin Soldering
Weight ²	g		4.5
	oz		0.159
Mounting Torque		N·m	-
Recommended Accessories	Cable	-	-
	Mounting Base	-	-
TEDS Model Number ⁵		-	No

Additional Information

Note:

1. @ 160Hz, 5VDC, conditions
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
5. Some products may have changes in size after adding TEDS

B05H01

Supplied Accessories:

- Product Verification Report

COMPLIANCE WITH STANDARDS

