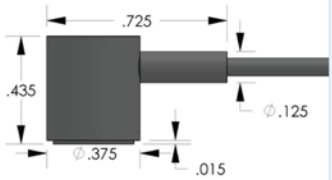
PRODUCT DATA SHEET

Micro100D Sensor

Miniature Differential Sensor

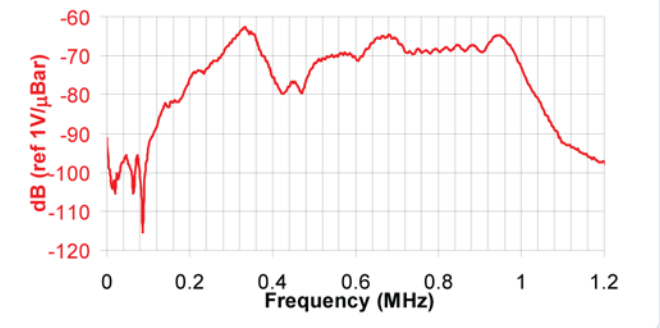


DESCRIPTION AND FEATURES

MICRO100D is a differential sensor designed to isolate the sensing terminals electrically from the cavity. This electrical isolation makes the sensor particularly useful for applications where high background electrical noise is a major concern. The sensor has a very high sensitivity and bandwidth. It has a good frequency response over the range of 200–900 kHz. The two signal leads from the sensing element feed into a differential pre-amplifier which eliminates common-mode noise resulting in a lower noise output from the pre-amplifier. This sensor features a rugged steel construction and a dual BNC connector with an integrated twin axial cable exiting on the side.

APPLICATIONS

This sensor is well suited for structural health monitoring of large structures like storage tanks, pipelines etc. Wideband sensors are well suited for research applications where a high fidelity AE response is required. It can be easily mounted using epoxy.



OPERATING SPECIFICATIONS

Dynamic

Peak Sensitivity, Ref V/µbar	-64 dB
Operating Frequency Range	200-900 KHz
Resonant Frequency, Ref V/(m/s)	250 KHz
Resonant Frequency, Ref V/µbar	325 KHz
Directionality	+/-1.5 dB

Environmental

Temperature Range	-65 to 177ºC
Shock Limit	500 g

Completely enclosed crystal for RFI/EMI immunity

Physical

Dimensions	0.4”OD X 0.5”H
	10 mm OD X 12 mm H
Weight	23 grams
Case Material	Stainless steel
Face Material	ceramic
Connector	Dual BNC
Connector Locations	side

ORDERING INFORMATION AND ACCESSORIES

MICRO100D	MICRO100D
Cable (specify length in ‘-XX’ m at end of PN)	1 m
Pre-Amplifier	0/2/4, 2/4/6
Amplifier Subsystems	AE2A, AE5A
Cable (Pre-amplifier to system)	1234-X

Sensors include

NIST Calibration Certificate & Warranty

ISO 9001

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