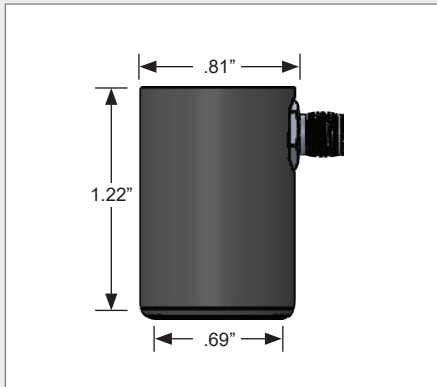


PKBBI Sensor

Broadband Sensor Designed for Modal AE



DESCRIPTION AND FEATURES

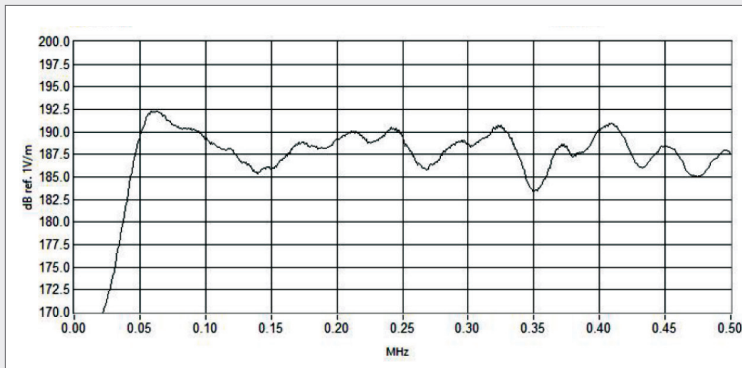
The PKBBI sensor is a broadband sensor designed for AE wave motion with high sensitivity and high signal-to-noise ratio. It offers a good, flat response to the displacement, within ± 6 dB in the frequency range of 50 kHz to 400 kHz and an extension up to 600 kHz. It delivers high quality spectrogram for Modal AE analysis.

The PKBBI sensor is integrated with a 26 dB, low noise pre-amplifier that can drive more than 60 m (200 ft) cable.

The PKBBI sensor has a very rugged design for industrial usage and environment resistance.

APPLICATIONS

The PKBBI sensor is especially recommended for use with Modal AE technology. This branch of AE technology investigates the AE source events by paying close attention to the wave modes in the structure and their manifestation in the sensor output. Unlike the resonant sensors, the output of the PKBBI sensor is not dominated by the resonance frequencies. Instead, it produces a signal that tracks the motion of the surface and can be analyzed to reveal the underlying movement and important characteristics of the source event including source-sensor distance.



OPERATING SPECIFICATIONS

Dynamic

Peak Sensitivity, Ref 1 V/m 193 $\pm$ 3 dB
 Operating Frequency Range 50-400 kHz
 Typical Range of Sensitivity, Ref 1 V/m 181-193 dB
 Directionality $\pm$ 1.5 dB

Environmental

Temperature Range -20 to 75 $^{\circ}$ C
 Shock Limit 50 g
 Drop Limit 0.5 m to metal plate

Physical

Dimensions 0.81" OD X 1.22" H
 20.6 mm OD X 31.0 mm H

Electrical

Gain 26 dB
 Power Requirements 4.5-8 VDC @ 5-30 mA
 Grounding Case Grounding,
 Isolated from mounting surface
 Minimal Threshold 28 dB
 ASL 18 dB

ORDERING INFORMATION AND ACCESSORIES

PKBBI PKBBI
 Cable 1234-4002-XX (In Meters),
 SMA to BNC, PLUG

Sensors include

Characterization Certificate & Warranty

