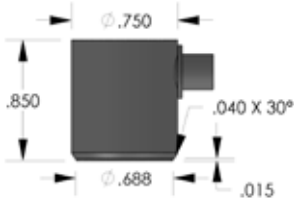


WSα Sensor

General Purpose Wideband Sensor



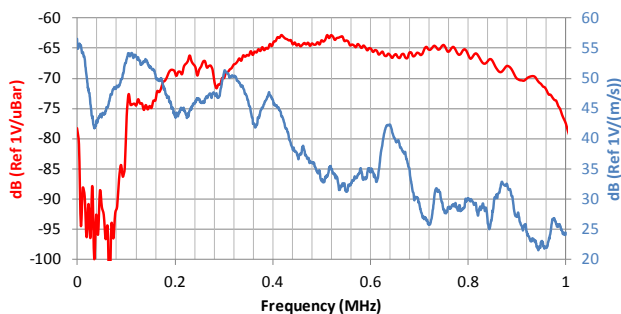
DESCRIPTION AND FEATURES

The WSα sensor is a single-ended, wideband frequency, Acoustic Emission sensor. Featuring a SMA connector within an integrated stainless steel cavity, the WSα is machined from a solid rod. A 30-degree angle at the bottom edge of the sensor cavity reduces the risk of electric shorts from the sensor cavity to conductive test surfaces.

The WSα takes advantage of the general Alpha series (consisting of R3α, R6α, R15α, R30α R50α, R80α and WSα sensors) sensor features and the WD sensor's high sensitivity and wideband frequency range.

APPLICATIONS

Wideband sensors are typically used in research applications or other applications where a high fidelity AE response is required. In research applications, wideband AE sensors are useful where frequency analysis of the AE signal is required and in helping determine the predominant frequency band of AE sources for noise discrimination and selection of a suitable lower cost, general purpose AE sensor. In high fidelity applications, various AE wavemodes can be detected using wideband sensors, providing more information about the AE source and distance of the AE event.



OPERATING SPECIFICATIONS

Dynamic

Peak Sensitivity, Ref V/(m/s)	55 dB
Peak Sensitivity, Ref V/μbar	-62 dB
Operating Frequency Range	100-1000 kHz
Resonant Frequency, Ref V/(m/s)	125 kHz
Resonant Frequency, Ref V/μbar	650 kHz
Directionality	+/-1.5 dB

Environmental

Temperature Range	-65 to 175°C
Shock Limit	500 g
Completely enclosed crystal for RFI/EMI immunity	

Physical

Dimensions	0.75" OD X 0.84" H 19 mm OD X 21.4 mm H
Weight	32 grams
Case Material	Stainless Steel
Face Material	Ceramic
Connector	SMA
Connector Locations	Side
Seal	Epoxy
Sensor to Preamp Cable (1 or 2 meters)	1232-X-SMA

ORDERING INFORMATION AND ACCESSORIES

WSα	WSα or WSα
Cable (specify length in 'XX' m)	1234-SMA/BNC-X
Magnetic Hold-Down	MHR15A
Preamplifier	0/2/4, 2/4/6
Preamp to System Cable (specify length in 'm')	1234 - X

Sensors include

NIST Calibration Certificate & Warranty

