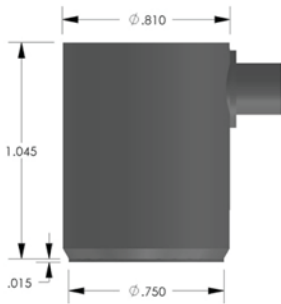


PRODUCT DATA SHEET

PKWDI Sensor

Wideband Low Power Integral Preampifier Resonant Sensor



DESCRIPTION AND FEATURES

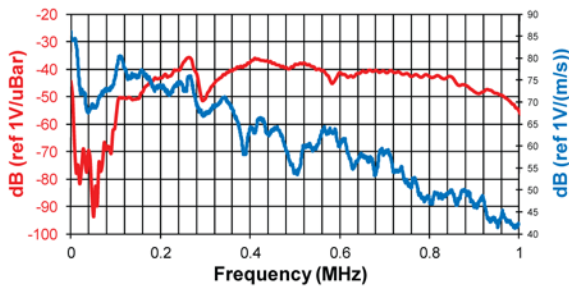
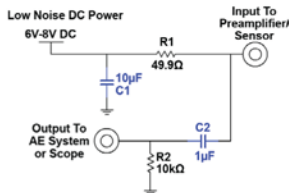
The PKWDI sensor is a wideband frequency, acoustic emission sensor with an integral, ultra low noise, low power, filtered, 26dB preamplifier, which can drive up to 200 meters of cable. This sensor represents an improvement in both noise and low power consumption performance, with noise level below 3 μV and power consumption of 25 mW. The PKWDI features a strong stainless steel, integrated body structure.

The integrated Auto Sensor Test (AST*) capability allows these sensors to pulse as well as receive. This feature lets you verify the sensor coupling and performance at any time before, during or after the test.

APPLICATIONS

The PKWDI sensor has been designed to be used with the Pocket AE, a small handheld AE system, or with the Sensor Highway II, an outdoor rated, on-line monitoring system.

Power/Signal Connections



OPERATING SPECIFICATIONS

Dynamic

Peak Sensitivity, Ref V/(m/s)	80 dB
Peak Sensitivity, Ref V/ μbar	-34 dB
Operating Frequency Range	200-850 KHz
Resonant Frequency, Ref V/(m/s)	270 dB
Resonant Frequency, Ref V/ μbar	110 KHz
Directionality	+/- 1.5 dB

Environmental

Temperature Range	-35 to 80°C
Shock Limit	500 g
Completely enclosed crystal for RFI/EMI immunity	

Physical

Dimensions	0.812"OD X 1.07"H
	20.6 mm OD X 27 mm H
Weight	51 grams
Case Material	Stainless steel
Face Material	Ceramic
Connector	SMA
Connector Locations	Side

Electrical

Gain	26 dB
Power Requirements	4 to 7 VDC @ 5 mA
Operating/Max Current	5/35 mA
Noise Level (RMS RTI)	< 3 μV

ORDERING INFORMATION AND ACCESSORIES

PKWDI	PKWDI
Cable (specify length in 'XX' m at end of PN)	1234-SMA/BNC-X
Magnetic Hold-Down	MHPK15I
Amplifier Subsystem	AE2A, AE5A
Other IS Sensors are available with various resonant frequencies.	

Sensors include

NIST Calibration Certificate & Warranty

