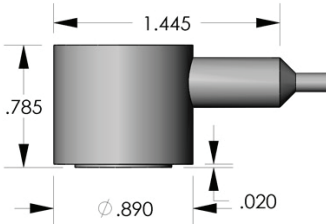


PRODUCT DATA SHEET
ISWD Sensor

Intrinsically Safe Sensor

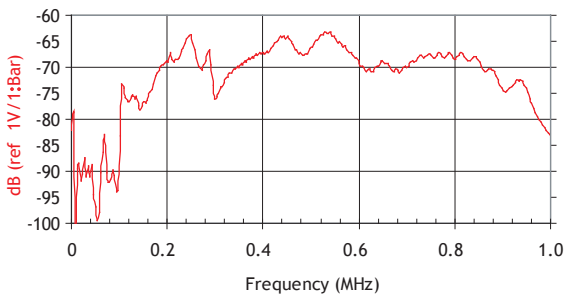

DESCRIPTION AND FEATURES

The ISWD is a wideband frequency sensor that was designed specially to meet Intrinsic Safety (IS) and IP65 environmental requirements. Certified as Intrinsically Safe (IS) for use with our 1276-2 IS preamplifier and 1276-1 and 1278 IS ASL-C subsystem, this sensor has a thicker ceramic wear-plate and an epoxy coating completely covering the sensor and cable exit. An IS voltage protection circuit is built into the sensor.

It has an integrated one-meter long differential cable with extruded TPE jacket and a pigtail for connecting into a 1276 or 1278 IS Preamplifier or Subsystem. The sensor has similar frequency response as the the WD sensor. Its maximum operating temperature is 125°C.

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/ μ bar.....	-63 dB
Operating Frequency Range.....	150-850 KHz
Resonant Frequency, Ref V/(m/s).....	125 dB
Resonant Frequency, Ref V/ μ bar.....	530 KHz
Directionality.....	+/- 1.5 dB

Environmental

Temperature Range.....	-45 to 125°C
Shock Limit.....	500 g
Completely enclosed crystal for RFI/EMI immunity	

Physical

Dimensions.....	0.89"OD X 0.755"H
	22.6 mm OD X 19.2 mm H
Weight.....	27 grams with 1 meter cable
Case Material.....	Stainless steel/Epoxy
Face Material.....	Ceramic
Connector.....	Pigtail
Connector Locations.....	Side
Seal.....	Epoxy
Sensor to Preamp Cable (1 meter).....	Integral

Certifications

ATEX Certified

ORDERING INFORMATION AND ACCESSORIES

ISWD.....	ISWD
Pre-amplifier.....	1276-2
ASL-4-20 ma Subsystem.....	1276-1
Preamp to System Cable (specify length in 'm').....	1276C
IS Zener Barrier.....	1276B
Other IS Sensors are available with various resonant frequencies.	

Sensors include

NIST Calibration Certificate & Warranty


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