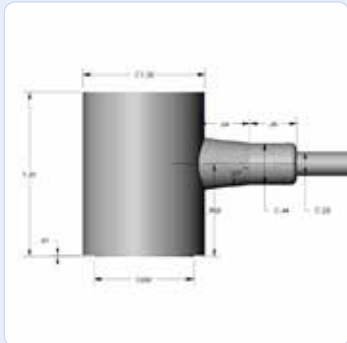


PRODUCT DATA SHEET

ISR.45 Sensor

Intrinsically Safe Sensor



DESCRIPTION AND FEATURES

The ISR.45 is our lowest resonant frequency sensor 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 R.45 sensor. Its maximum operating temperature is 125°C.

APPLICATIONS

This sensor is normally selected for structural health monitoring of large-scale concrete structures, geologic structures and for pipeline leak detection applications where large distances between sensors is required, where there is little acoustic background noise and where intrinsically safe sensors and instrumentation are required.

OPERATING SPECIFICATIONS

Dynamic

Peak Sensitivity, Ref V/(m/s) 87 dB
 Operating Frequency Range 3-30 KHz
 Resonant Frequency 7 KHz
 Directionality +/- 1.5 dB

Environmental

Temperature Range -45 to 125°C
 Shock Limit 1,000 g
 Waterproof IP66
 Completely enclosed crystal for RFI/EMI immunity

Physical

Dimensions 1.30"OD X 1.40"H
 33 mm OD X 36 mm H
 Weight 155 grams with 1 meter cable
 Case Material Stainless steel / Epoxy
 Connector Pigtail
 Connector Locations Side
 Seal Epoxy
 Sensor to Preamp Cable (1 meter) Integral

Certifications

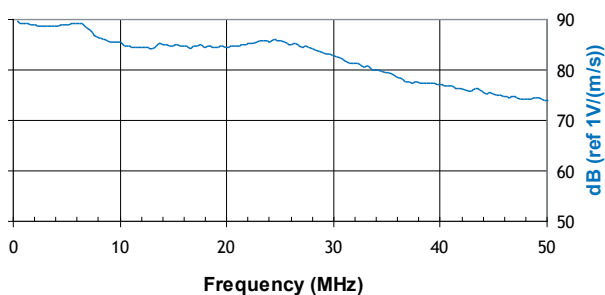
ATEX Certified, II1, GD, EEx, ia, IIC T4

ORDERING INFORMATION AND ACCESSORIES

ISR.45 ISR.45
 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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