

PRODUCT DATA SHEET

ISR15CA-HT Sensor

Intrinsically Safe High Temperature Sensor

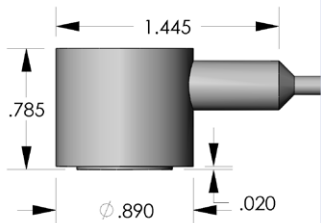


DESCRIPTION AND FEATURES

The ISR15CA-HT sensor is a medium frequency, resonant acoustic emission sensor with an integral cable. It is designed to meet the intrinsic safety (IS) and IP66 requirements and can operate at very high temperatures continuously. The special polymer coatings on the sensor along with an integral cable make it 100% insulated and non-conductive. The sensor can be used to temperatures of 150°C.

APPLICATIONS

The sensor can be readily used for structural health monitoring in harsh environments requiring intrinsic safety. It can be used for the monitoring of structures like pipelines, pressure vessels and storage tanks in petroleum refineries, chemical plants and offshore platforms.



OPERATING SPECIFICATIONS

Dynamic

Peak Sensitivity, Ref V/(m/s)	70 dB
Peak Sensitivity, Ref V/ μ bar	-65 dB
Operating Frequency Range	50-400 kHz
Resonant Frequency, Ref V/(m/s)	75 kHz
Resonant Frequency, Ref V/ μ bar	150 kHz
Directionality	+/-1.5 dB

Environmental

Temperature Range	See Below
Shock Limit	500 g
Waterproof	IP66
Completely enclosed crystal for RFI/EMI immunity	

Physical

Dimensions	0.89" OD X 0.8" H 23 mm OD X 20 mm H
Weight	27 grams with 1 meter cable
Case Material	Stainless Steel/Epoxy
Face Material	Ceramic
Connector	BNC on integral cable
Connector Locations	Side

Certifications

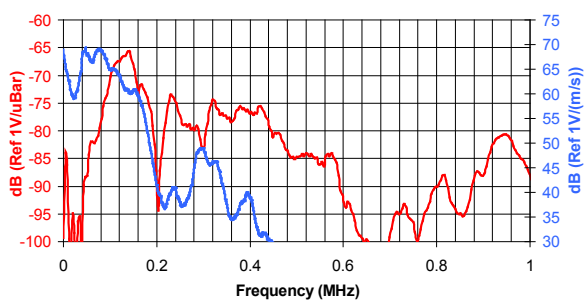
Ex ia IIC T4, -55°C \leq Ta \leq 120°C
Ex ia IIIC T135°C, -55°C \leq Ta \leq 120°C
Ex ia IIC T3, -55°C \leq Ta \leq 150°C
Ex ia IIIC T200°C, -55°C \leq Ta \leq 150°C

ORDERING INFORMATION AND ACCESSORIES

ISR15CA-HT	ISR15CA-HT
Cable (specify length in 'XX' m)	XX
IS Zener Barrier/Preamplifier Interface	1281

Sensors include

NIST Calibration Certificate & Warranty



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