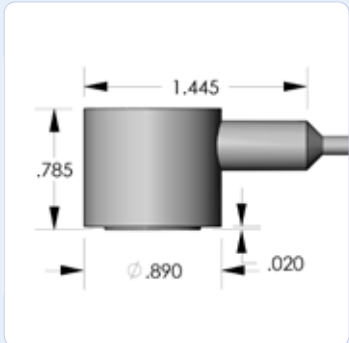


PRODUCT DATA SHEET

ISR30CA-HT Sensor

Intrinsically Safe High Temperature Sensor

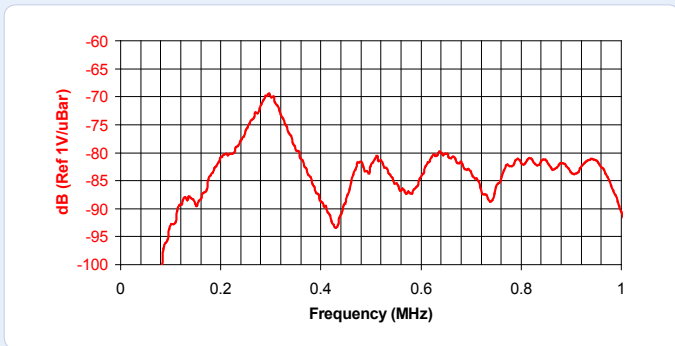


DESCRIPTION AND FEATURES

The ISR30CA-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) 58 dB
 Peak Sensitivity, Ref V/μbar -64 dB
 Operating Frequency Range 150-400 kHz
 Resonant Frequency, Ref V/(m/s) 300 kHz
 Resonant Frequency, Ref V/μbar 350 kHz
 Directionality +/-1.5 dB

Environmental

Temperature Range See Below
 Shock Limit 1000 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 ≤ Ta ≤ 120°C
 Ex ia IIIC T135°C, -55°C ≤ Ta ≤ 120°C
 Ex ia IIC T3, -55°C ≤ Ta ≤ 150°C
 Ex ia IIIC T200°C, -55°C ≤ Ta ≤ 150°C

ORDERING INFORMATION AND ACCESSORIES

ISR30CA-HT ISR30CA-HT
 Cable (specify length in 'XX' m) XX
 IS Zener Barrier/Preamplifier Interface 1281

Sensors include

NIST Calibration Certificate & Warranty



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