

PRODUCT DATA SHEET

ISPK6IUC Sensor

Intrinsically Safe Underwater Sensor

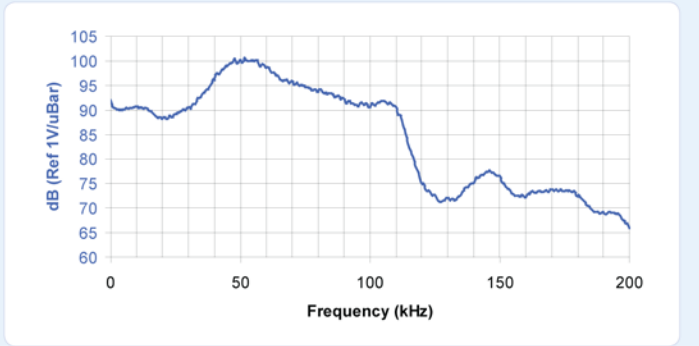
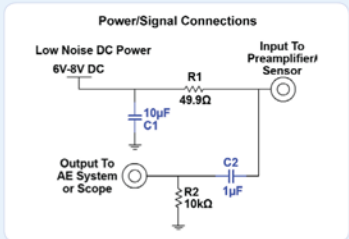
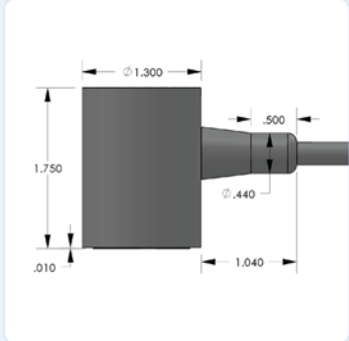


DESCRIPTION AND FEATURES

The ISPK6IUC is a low frequency, resonant acoustic emission sensor with an integral cable. It is designed to meet the intrinsic safety (IS) requirements and can operate in underwater conditions. The sensor features a 26 dB low power, low noise preamplifier that can drive up to 200 meters of cable. The special polymer coatings on the sensor along with an integral waterproof cable make it 100% insulated and non-conductive. The sensor can be used to depths of 1000 psi.

APPLICATIONS

The sensor can be readily used for structural health monitoring in 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)..... 101 dB
 Operating Frequency Range 30-100 kHz
 Resonant Frequency, Ref V/(m/s).....60 kHz
 Directionality +/-1.5 dB

Environmental

Temperature Range -40 to 70°C
 Shock Limit500 g
 Completely enclosed crystal for RFI/EMI immunity

Physical

Dimensions..... 1.31"OD X 1.75"H
 33 mm OD X 45 mm H
 Weight98 grams
 Case Material..... Stainless Steel/Epoxy
 Face Material..... Ceramic
 Connector BNC on integral cable
 Connector Locations.....Side

Electrical

Gain **Текст**..... 26 dB
 Preamp DC power 5-7 V
 Grounding..... Isolated from mounting surface
 Noise level at input..... <3 µV
 Preamplifier dynamic range >87 dB
 Preamplifier impedance 50 ohm

Certifications

II 1 G, Ex ia IIC T4

ORDERING INFORMATION AND ACCESSORIES

ISPK6IUC ISPK6IUC
 Cable (specify length in '-XX' m) XX
 IS Zener Barrier/Preamplifier Interface 1281

Sensors include

NIST Calibration Certificate & Warranty

