

PRODUCT DATA SHEET

AM4I Sensor
Airborne Sensor

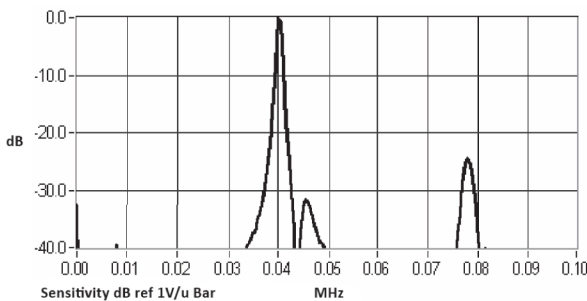
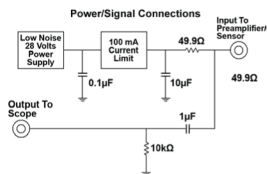
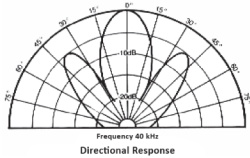
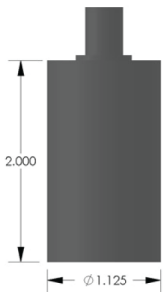


DESCRIPTION AND FEATURES

The AM4I Sensor is a rugged, high sensitivity airborne, AE Transducer with its peak sensitivity at around 40 kHz. The narrow frequency response reduces noise and increases signal to noise ratio. The sensor's enclosed diaphragm design ensures a high sensitivity and protects the sensing element from the environment. The sensor has a 40 dB preamplifier inside its cavity. It can be connected to PAC standard AE Data Acquisition Systems just like other PAC AE Sensors, using phantom power (where power supply input and sensor output signal are combined on the co-ax center conductor).

APPLICATIONS

The sensor is typically used in airborne leak detection applications. It may also be used to monitor other types of faults and failure conditions that emit airborne ultrasonic sound at or very near the sensor's resonant frequency.



OPERATING SPECIFICATIONS

Dynamic

Peak Sensitivity, Ref V/ μ bar 0 dB
Operating Frequency Range 39-42 KHz
Resonant Frequency, Ref V/(m/s); [V/ μ bar].....40 kHz
Total Beam Angle (-3 dB points)20°

Environmental

Temperature Range -25 to 75°C
Shock Limit500 g
Completely enclosed crystal for RFI/EMI immunity

Physical

Dimensions1.13"OD X 2.0"H
.....29 mm OD X 51 mm H
Weight81 grams
Case Material..... Stainless Steel
Connector BNC
Seal Epoxy

Electrical

Input Voltage 16-29 VDC
Operating/Max Current..... 20/120 mA
Internal Preamp Gain 40 dB
Noise RTI (referred to input μ V) < 2.4

ORDERING INFORMATION AND ACCESSORIES

AM4IAM4I
Cable (specify length in 'XX' m at end of PN) 1234-X
Preamp to System Cable (specify length in 'm') 1234-X
Amplifier SubsystemsAE2A

Sensors include

NIST Calibration Certificate & Warranty

