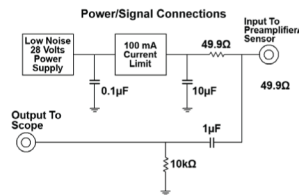
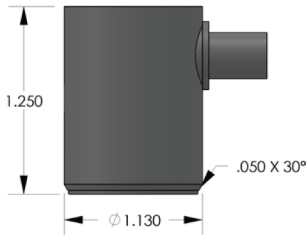


PRODUCT DATA SHEET

CH30I Sensor

Medium Frequency & Low Noise Integral Preamp Sensor



DESCRIPTION AND FEATURES

The CH30I sensor is a medium frequency, resonant, acoustic emission sensor with an integral, low noise, filtered, 40 dB preamplifier that can drive up to 500 feet of cable. The sensor comes standard with PAC's unique "Auto Sensor Test" (AST*) function.

The CH30I features a strong, insulated, lightweight, aluminum alloy, integrated body structure that is color-coded purple to identify the sensor model. This sensor's outside shell is anodized, providing a nonconductive finish to prevent any possible electric shorts from metal testing structures. It is the same size and has the same frequency response and sensitivity as the R30I sensor, but the EMI shielding ability of the CH30I has been improved by more than 300% compared with previous versions.

APPLICATIONS

- Normally chosen for use in noisy environments
- Pipeline test with flow noise
- Steel structure highway bridges with low frequency road and wind noises

OPERATING SPECIFICATIONS

Dynamic

Peak Sensitivity, Ref V/(m/s).....	97 dB
Peak Sensitivity, Ref V/µbar.....	-22 dB
Operating Frequency Range.....	125-450 kHz
Resonant Frequency, Ref V/(m/s).....	300 kHz
Resonant Frequency, Ref V/µbar.....	350 kHz
Directionality.....	+/-1.5 dB

Electrical

Gain.....	40 dB
Power Requirements.....	16-30 Vdc @ 25 mA
Dynamic Range.....	>80 dB
Output Voltage.....	20 V peak to peak
Noise Level (RMS tri).....	<2.4 µV
Output Drive Impedance.....	50 Ω
Sensor Drive Capability.....	up to 500 ft (166 m)
AST Pulse.....	24 V, 3 microseconds into crystal
Grounding.....	Case grounded, isolated from sensing face

Environmental

Temperature Range.....	-35 to 75°C
Shock Limit.....	500 g
Completely enclosed crystal for RFI/EMI immunity	

Physical

Dimensions.....	1.13"OD X 1.28"H 29 mm OD X 32.6 mm H
Weight.....	45 grams
Case Material.....	Purple color, anodized aluminum alloy
Face Material.....	Ceramic
Connector.....	BNC
Connector Locations.....	Side
Seal.....	Epoxy
Matching Cable.....	1234-X

ORDERING INFORMATION AND ACCESSORIES

Cable (specify length in '-XX' m at end of PN) 1234 - X
Magnetic Hold-Down MHR30I
Amplifier Subsystems AE2A, AE5A

Sensors include

NIST Calibration Certificate & Warranty

