

PRODUCT DATA SHEET

R50-UG Sensor

Underground Sensor

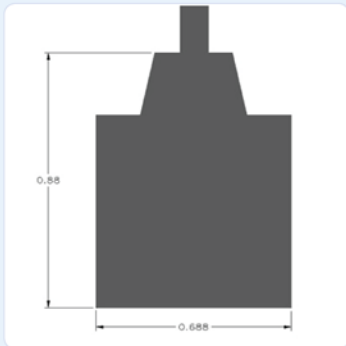


DESCRIPTION AND FEATURES

R50-UG is an underground sensor with very high sensitivity and good bandwidth. The sensor features special polymer coatings making it 100% insulated and non conductive with an integral waterproof cable. The sensor is tested to depths of 1000 psi. The sensor can be used in applications requiring good bandwidth for frequency analysis of the AE signals.

APPLICATIONS

The sensor can be used for the structural health monitoring of underground structures like pipelines, oil tanks, tunnels etc. They can also be used for monitoring geological structures and seismic activity.



OPERATING SPECIFICATIONS

Dynamic

Peak Sensitivity, Ref V/(m/s).....	62 dB
Peak Sensitivity, Ref V/ μ bar.....	-65 dB
Operating Frequency Range.....	150-650 KHz
Resonant Frequency, Ref V/(m/s).....	100 dB
Resonant Frequency, Ref V/ μ bar.....	500 KHz
Directionality.....	+/- 1.5 dB

Environmental

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

Physical

Dimensions.....	0.69"OD X 0.68"H
.....	18 mm OD X 17 mm H
Weight.....	24 grams
Case Material.....	Stainless Steel/Epoxy
Face Material.....	Ceramic
Connector.....	BNC on integral cable
Connector Locations.....	Top (optional side exit)

ORDERING INFORMATION AND ACCESSORIES

R50-UG.....	R50-UG
Cable (specify cable length in 'm').....	1234-X
Pre-amplifiers.....	0/2/4, 2/4/6
Preamp to System Cable (specify length in 'm').....	1234-X
Amplifier Subsystems.....	AE2A or AE5A

Sensors include

NIST Calibration Certificate & Warranty

