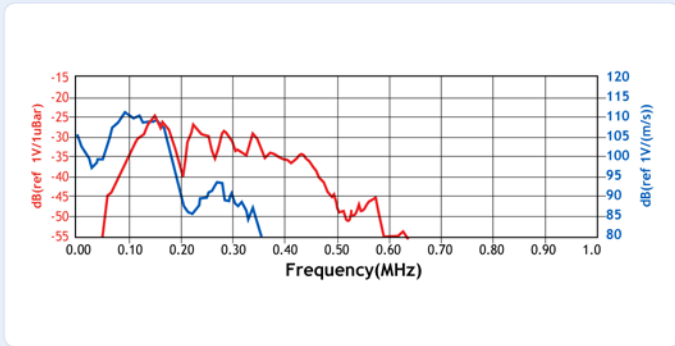
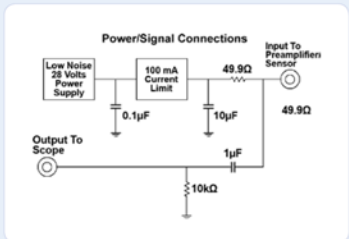
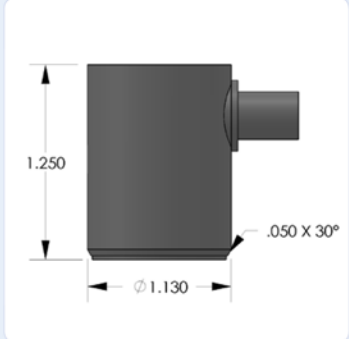


PRODUCT DATA SHEET

LN15I Sensor

Medium Frequency Resonant Sensor



DESCRIPTION AND FEATURES

The LN15I sensor is a very low noise, medium frequency, resonant, acoustic emission sensor with an integral, ultra low noise, filtered, 40dB preamplifier, which can drive up to 1000 ft of cable. This new sensor represents an improvement in both noise and AST* performance, with noise level well below 2uV and an AST signal strength increase of 20dB over the R15I. The LN15I features a strong insulated, lightweight, Aluminum alloy, integrated sensor housing. The sensor outside shell is anodized, providing a non-conductive finish, to prevent any possible electric shorts from metal testing structures. The sensor outside casing is also color coded blue to identify the sensor model. The EMI shielding of the sensor has been improved by more than 300% compared with previous sensors. The sensor is the same size and has the same frequency response and sensitivity as the R15I sensor.

APPLICATIONS

The LN15I sensor can be used to replace R15I general purpose AE sensor in very low noise and high EMI noise applications, and applications requiring higher energy AST pulsing.

OPERATING SPECIFICATIONS

Dynamic

Peak Sensitivity, Ref V/(m/s).....	110 dB
Peak Sensitivity, Ref V/μbar.....	-18 dB
Operating Frequency Range.....	50-200 kHz
Resonant Frequency, Ref V/(m/s).....	90 kHz
Resonant Frequency, Ref V/μbar.....	150 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.....	1.13"OD X 1.28"H
	29 mm OD X 32.5 mm H
Weight.....	51 grams
Case Material.....	Blue Color Anodized Aluminum Alloy
Face Material.....	Ceramic
Connector.....	BNC
Connector Locations.....	Side

Electrical

Input Voltage Range (VDC).....	16-29
Operating/Max Current (mA).....	26/120
Internal Preamp Gain.....	40 dB
Noise RTI (referred to input).....	<2 μV
AST.....	High Energy 40 V Tone Burst

ORDERING INFORMATION AND ACCESSORIES

LN15I.....	LN15I
Cable (specify cable length in meters).....	1234-X
Magnetic Hold-Down.....	MHR15I
Amplifier Subsystem.....	AE2A, AE5A

Sensors include

NIST Calibration Certificate & Warranty

