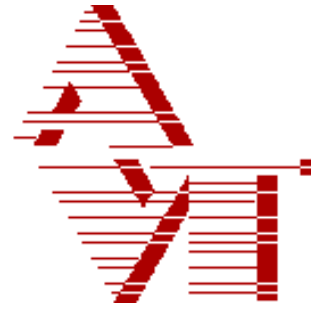


Acoustic Emission Sensors and Instrumentation



MODEL NS2000 SERIES ACOUSTIC SENSORS AND PRE-AMPLIFIER

- 4 models covering frequency range 70-650 kHz
- Fully sealed construction (excl connector)
- Integral TNC connector
- ATEX versions available
- Optional magnetic mounting kit



The **NS series** of high performance acoustic emission sensors offer high sensitivity-low noise measuring capability for a wide range of industrial applications. The transducers are fully encapsulated within a satin chromed, thick walled brass housing and connection is via a standard TNC connector.

Mounting to the test specimen is typically achieved using silicon rubber or epoxy adhesives. Alternatively, an optional isolated magnetic clamp, together with silicon grease couplant, can be used.

The sensor is designed to be used with the **NA2000** pre-amplifier. The NA2000 is both a 40 dB amplifier and a pulser driver. Therefore calibration pulses can be introduced to the test specimen under the control of the monitoring system. The pre-amplifier is housed in a sealed IP65 enclosure suitable for direct installation in most industrial environments. A preset filter board within each pre-amplifier ensures the optimum response from individual channels by matching the amplifier and transducer responses.

Details of ATEX versions are available on request (**IS2000 series**)



Specifications

SENSOR MODEL NS2000 SERIES

Type :	Tuned resonant pzt piezoelectric	
Nominal Centre Frequency :	NS 2001	70kHz
	NS 2002	190 kHz
	NS 2004	450 kHz
Temp Range :	-25°C to +115°C	
Sealing :	Epoxy potting	
Coupling Shoe :	Ceramic	
Couplant :	Silicon rubber/epoxy mounting adhesive or silicon grease	
Dimensions :	34 mm dia x 25 mm high	
Weight :	150 g approx	



PRE-AMPLIFIER MODEL NA2000

Type:	Combined Pre-amplifier and Pulser Driver	
Gain :	40 dB	
Input Impedance :	33 k /20 pF	
Output :	±10 V into 50	
Pulser Output to Sensor:	20 V peak to peak	
Filters Available :	200 kHz bandpass 450 kHz bandpass (48 dB per octave)	
Noise (RTI) :	<2 µV RMS	
Sealing :	IP20	
Current Drain :	30 mA	
Supply :	28-30 VDC	
Weight :	470 g approx	

