

# Acoustic Emission Sensors and Instrumentation



## MODEL S200 MINIATURE ACOUSTIC SENSOR AND PRE-AMPLIFIER

- Only 10 mm diameter x 4 mm thick
- Fully sealed construction
- Integral 1m microdot cable
- Compatible with NA2000 pre-amplifier



The **S200** miniature acoustic emission sensor is only 4 mm thick and designed for applications where conventional sensors are too large. The 6 mm diameter PZT crystal is mounted on a PCB and the external **SM200** circuit with a resonant inductor boosts sensor output. The sensors are fully sealed within a satin chromed brass housing.

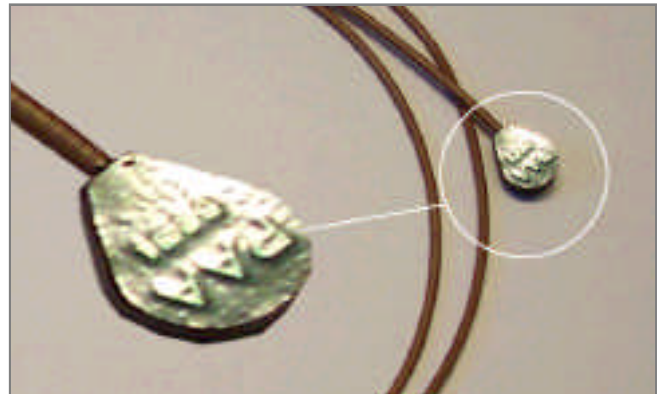
Mounting is achieved using silicon rubber or epoxy adhesives or alternatively with isolated magnetic clamps and silicon grease couplant

The transducer 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.



# Specifications

SENSOR	MODEL S200
Type :	Externally tuned resonant pzt piezoelectric
Nominal Centre Frequency :	190 kHz
Temp Range :	-25°C to +125°C
Sealing :	Epoxy potting
Coupling Shoe :	Ceramic
Couplant :	Silicon rubber/epoxy mounting adhesive or silicon grease
Dimensions :	10 mm dia x 4 mm thick
Weight :	40 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 Transducer :	20 V peak to peak
Filters Available :	200 kHz bandpass
Noise (RTI) :	<2 µV RMS
Sealing :	IP20
Current Drain :	30 mA
Supply :	28-30 VDC

