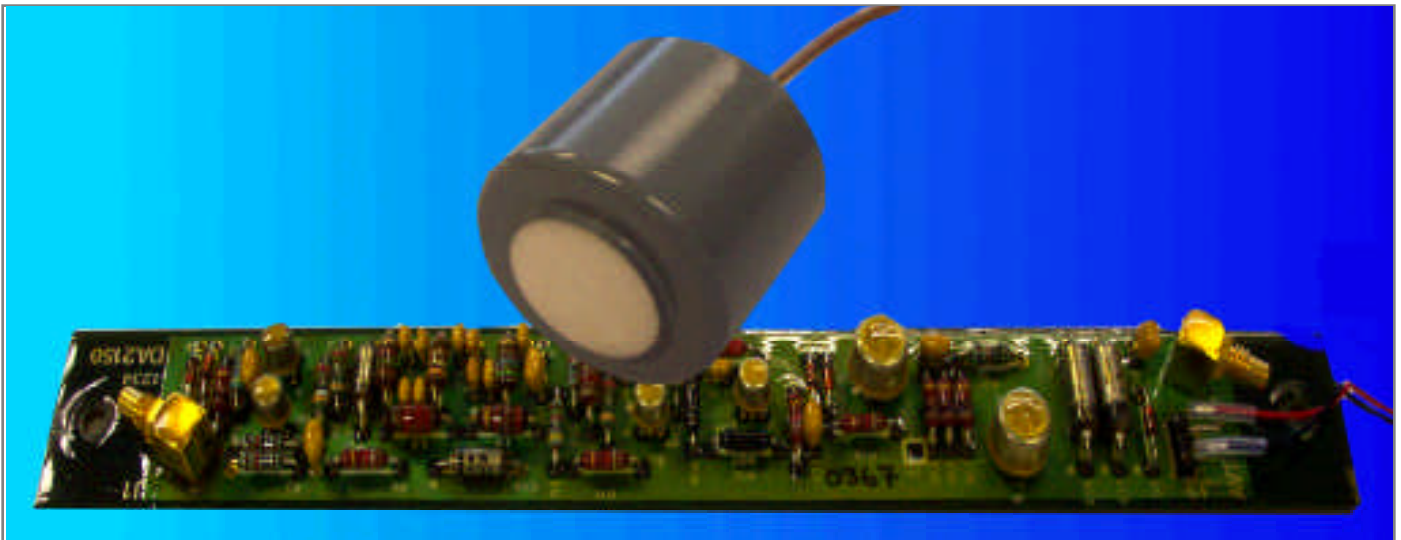


Acoustic Emission Sensors and Instrumentation



MODEL DS2150 DOWN-HOLE SENSOR AND PRE-AMPLIFIER

- Nominal 450 kHz frequency range
- Fully sealed construction (sensor)
- Microdot teflon cable (500 mm)
- Compact sensor design (26x26 mm)
- 0-150°C temperature range



The **DS2150** sensor and pre-amplifier are specifically designed for down-hole operations during oil and gas exploration and production activities. Typical applications include the mapping of sand production rates versus depth within a well, in order to locate sand bearing regions.

The sensor and pre-amplifier are normally incorporated in a down-hole tool, with a suitable waveguide connecting the ceramic face of the sensor with the media to be monitored (eg. sand bearing production fluid.).

The sensor and pre-amplifier are capable of withstanding temperatures from 0 to 150°C and operating pressures of 3.63 bar (50 psi)



Specifications

SENSOR	MODEL DS2150
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Type :	Tuned resonant pzt piezoelectric
Nominal Centre Frequency :	450 kHz
Output Voltage :	1 μ V to 100 mV
Temp. Range :	0°C to +150°C
Sealing :	Epoxy potting
Coupling Shoe :	Ceramic
Couplant :	Silicon rubber/epoxy mounting adhesive or silicon grease
Dimensions :	26 mm dia x 26 mm high
Weight :	100g approx



PRE-AMPLIFIER	MODEL DA2150
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Gain :	40 dB (25°C), 36 dB (150°C)
Input Impedance :	33 k /20 pF
Output :	RF signal 0-5V peak
Band Pass Filters :	nom. 300 kHz to 580 kHz
Background Noise :	Typically 20 dB
Sealing :	Encapsulated pcb board
Current Drain :	< 10 mA
Power Supply :	12 VDC regulated supply
Sensor Input Connector:	SMC right angled co-axial connector
Output Signal Connector :	SMC right angled co-axial connector
Dimensions :	Designed to fit in 26 mm dia tube



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