

CMR CONTROLS

Air Management System

Manufacturers of
Pressure, Velocity Sensors and Controls

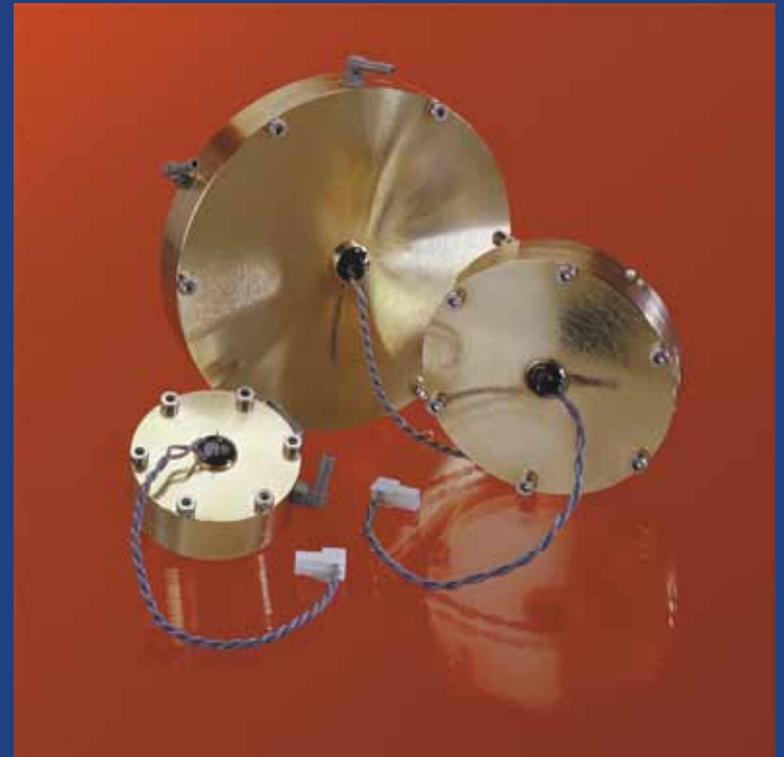


CMR PRESSURE TRANSDUCER

**CMR manufactures sensors since 1980
and more than
500 000 Sensors are in use world wide**

**The CMR pressure transducer is known
for its high accuracy and repeatability**

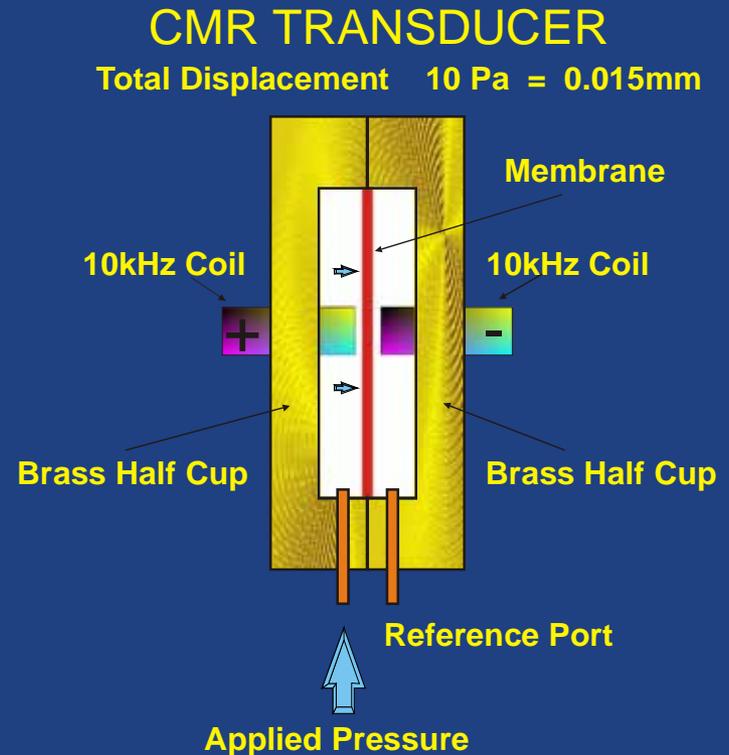
**Calibration is carried out traceable to
National and International Standards**



CMR

CMR SENSOR PRINCIPLE

Two Brass Half Cups hold the Membrane
The Membrane is hardened Copper Beryllium
This forms two isolated air tight chambers
Two Coils Sandwich the Membrane
Coils and Membrane are unattached
There is a (-) Negative and (+) Positive Coil
A 10kHz Frequency is applied to the coils
The Coils are precision matched
Self Compensating on Temperature
Extremely low zero drift
Displacement at 0.1 Pa only 0.00015mm
The Membrane always returns to zero
Long Term Stability and Accuracy
The Metal Membrane is linear in itself
The Span is therefore accurate and stable
The older the Membrane the better it gets
Which means long term repeatability.
Proven over 30 Years in Service



STATIC PRESSURE MEASUREMENT

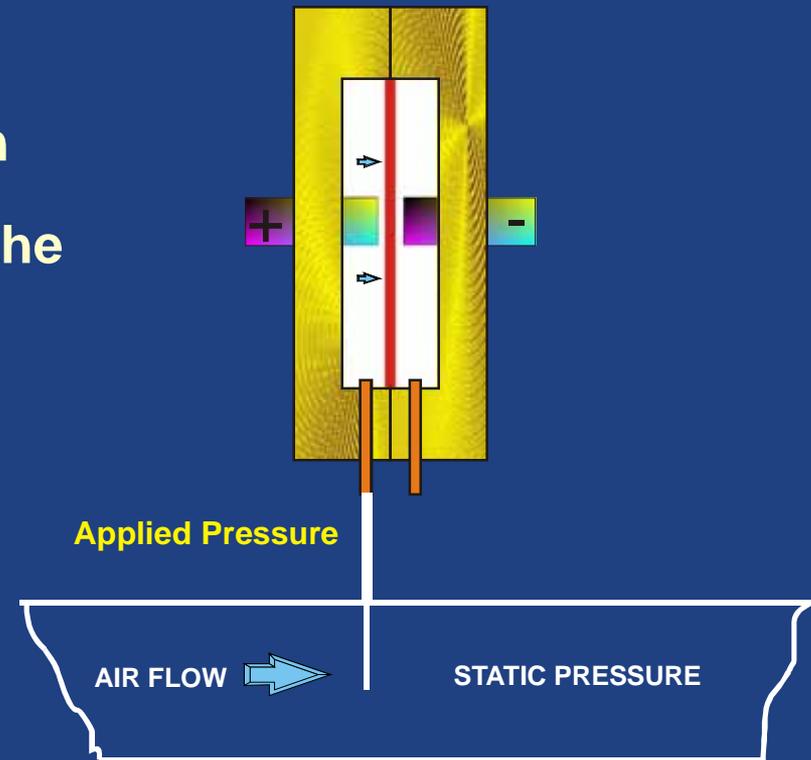
Pressure is applied to the membrane and moves it away from zero position

The induction of the coils measures the distance the membrane has moved

The frequency change of the coils is translated into 0-10V or 4-20mA

The measurement range is linear to the output electric signal

CMR TRANSDUCER



VELOCITY PRESSURE MEASUREMENT

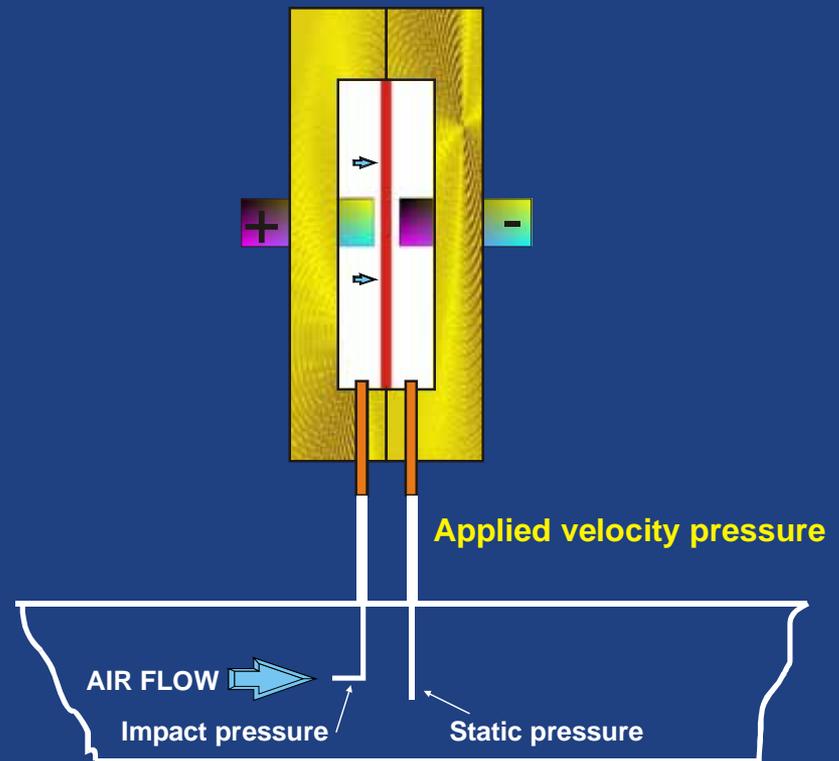
Impact pressure is applied to the positive port of the transducer.

Static pressure is applied to the negative port of the transducer

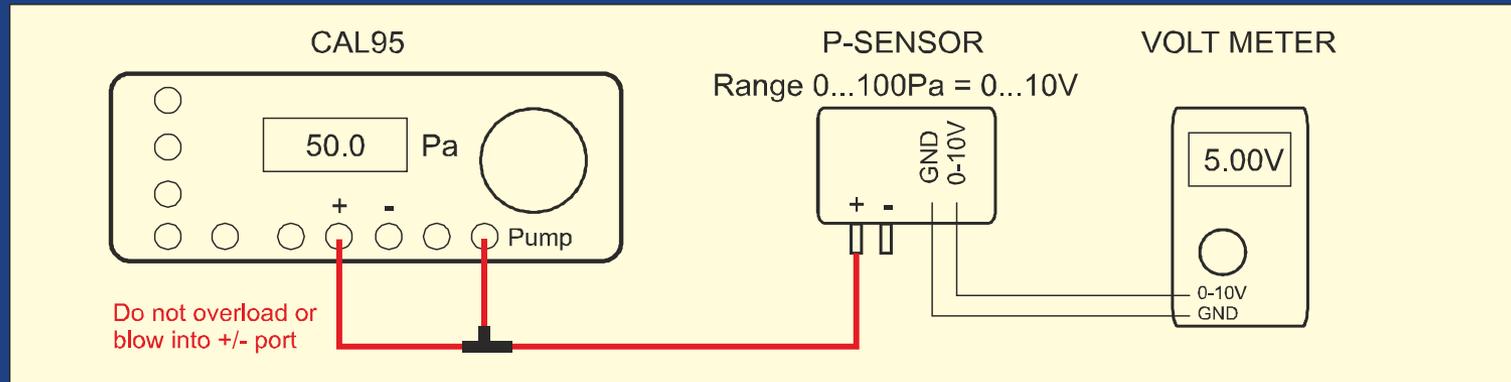
The result is a velocity pressure.

The CMR electronic converts the velocity pressure into air volume.

CMR TRANSDUCER



PRESSURE CALIBRATION



Silicone tube is connected to the test P-Sensor and the CAL95's positive port and pump.

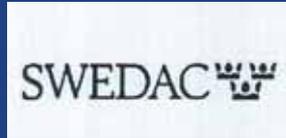
Pressure is applied by turning the pump wheel. The generated pressure is measured by the CAL95 and the P-Sensor.

The Voltmeter is connected to the P-Sensor and displays The actual pressure generated in 0...10V or 4...20mA.

If the measurement is not equal to the CAL95 the zero and span shall be adjusted until correct



CALIBRATION TRACEABILITY



EAL

European Cooperation for Accreditation of Laboratories

Traceable Calibration Certificates issued in any EAL Laboratory are valid and accepted in all member countries



THANK YOU ALL

END

