



CHALLENGING LIGHT
FOR OUR PARTNERS

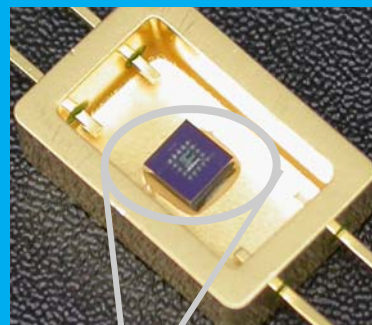
MICRO-PIRANI PRESSURE MICROSENSOR

INO is a world-class center of expertise in industrial applications for optics and photonics, as well as a leading technology developer and provider of MEMS and MOEMS technologies. We have the equipment and expertise to handle the entire microsystem development cycle, from the simulation, design, and fabrication of devices through to their packaging and characterization.

The INO micro-Pirani sensor is a MEMS-based technology derived from the advanced INO uncooled microbolometer developed for IR imaging.

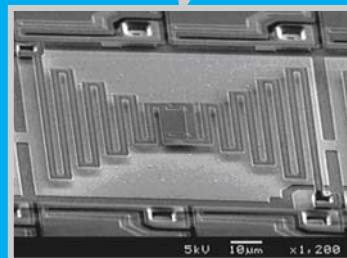
FEATURES AND BENEFITS

- . Extended measuring range from 3×10^{-3} Torr to 1 atm
- . Ultra compact design: volume of less than 1 cm^3
- . Fast response time
- . Insensitive to ambient temperature changes



APPLICATIONS

- . General vacuum control
- . Vacuum pressure measurement in semiconductor and coating industries
- . Tire pressure monitoring system (TPMS)
- . Process control
- . Pressure control system



PRM-100101



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MICRO-PIRANI

PRESSURE MICROSENSOR

SPECIFICATIONS*

SENSOR TYPE	MEMS micro-Pirani
MEASUREMENT RANGE	3×10^{-3} Torr to 1 atm
ACCURACY (typical)	$\pm 5\%$ of reading from 3 mTorr to 10 mTorr $\pm 2\%$ of reading from 10 mTorr to 760 Torr A high pressure sensor model is also available ranging from 1 to 5 atm
REPEATABILITY (typical)	$\pm 1.5\%$ of reading from 1 mTorr to 760 Torr
CALIBRATION STABILITY WITH TEMPERATURE	$\pm 0.7\%/^{\circ}\text{C}$ ($\pm 0.4\%/^{\circ}\text{F}$) from 5 mTorr to 40 Torr
BAKEOUT TEMPERATURE	300°C (572°F) maximum
RESPONSE TIME	< 100 ms
CHIP SIZE	Down to 1 mm x 1 mm
PACKAGE SIZE	< 1 cm ³
POWER SUPPLY	1 mW
WETTED MATERIALS	Si, Si ₃ N ₄ , gold or aluminum and low outgassing epoxy resin

**All calibrations were made using air as a calibration gas.
Note: All specifications subject to change without notice.*

PRM-1.00101