



AUTOMOTIVE AND GENERAL PURPOSE MINIATURE PRESSURE SENSOR WITH HIGH TEMPERATURE ELECTRONICS

NEW MAKS Series

- *M6 and M8 Size*
- *Integral Electronics
up to 200°C*



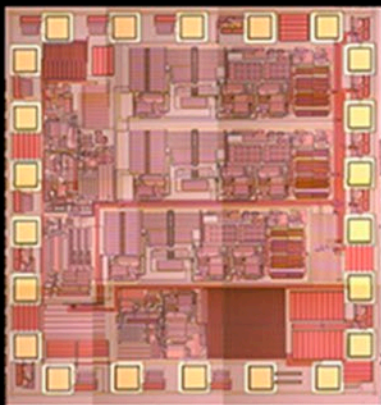
Maximum Performance in Minimal Packaging

WHERE INNOVATION AND TECHNOLOGY DRIVE THE FUTURE

Automotive and General Purpose Miniature Pressure Sensor with High Temperature Electronics

Kulite Semiconductor Products, Inc., a world leader in solid state technology and pressure sensing products, is proud to announce the launch of a revolutionary new series of high performance pressure transducers, designed specifically for the performance racing industry, yet adaptable for a wide variety of test applications.

For over 50 years, Kulite has been a leading manufacturer of reliable, high accuracy, miniature piezoresistive pressure transducers suitable for harsh environments. In order to establish operability in excess of other commercially available devices, Kulite has concurrently pursued the development of high-temperature application specific integrated circuits (ASICs) capable of performing all the necessary functions for supplying an amplified Voltage-level output signal: pre-regulation, precision regulation, amplification, output staging, gain control, and offset control.



High Temperature ASIC

Kulite's all-new MAKS series of high performance sensors are available in extremely small packages (M6 and M8 threaded version), and feature various internal design advantages over competitor products. Both the MAKS-6(T)(X) and MAKS-8(R)(T)(X) are available with embedded RTD. Additionally, the MAKS-8(R)(T)(X) is also available with redundant pressure output -- **maximum performance in minimal packaging.**



MAKS-8(R)(T)(X)

Kulite's patented piezoresistive vibration-insensitive SOI leadless technology is now packaged in an environmentally protected oil-filled pressure capsule making it compatible with all automotive fluid systems without risk of damage to the sensing element. Pressure ranges are available as low as 1 Bar, and as high as 1000 Bar in certain configurations.

The new designs contain more robust internal electrical connections and damping material for higher vibration resistance than in previous designs. The series features smaller body diameter and shorter overall length. The cable exit has also been enhanced

for durability. Newly designed integrated electronics can reach operating temperatures up to 200°C.

As with all Kulite transducers in general, the MAKS series continues to provide high proof and burst pressure ratings, very good long-term stability, low hysteresis and non-linearity, excellent repeatability, and most importantly, high accuracy.

These new sensors can be used in various automotive applications such as:

- brake pressure/ABS testing
- dynamometer testing
- coolant, oil, exhaust, fuel pressures
- and many more

Kulite is proud to offer the MAKS Series, combining all of Kulite's latest achievements in design, packaging, and manufacturability to address more requirements from today's automotive and test markets than ever before.



MAKS-6(T)(X)

For more information, visit <http://www.kulite.com> or contact company representatives.

Automotive and General Purpose Miniature Pressure Sensor with High Temperature Electronics

**Brake Pressure/Anti-Lock Brake System Testing
Dynamometer Testing**



**Coolant, Oil, Exhaust, Fuel, Hydraulics, Gearbox,
Pressure & Temperatures**

Kulite Automotive Pressure Sensors Smallest High Performance Amplified Transducers Worldwide

*Kulite Semiconductor Products, Inc. is the leading name worldwide in the transducer industry. Kulite is the first name in pressure transducers for the automotive engineer and scientist working at the cutting edge of research and design in their fields. The piezoresistive silicon sensor is the heart of the Kulite pressure transducer. It has evolved over the years to the dielectrically isolated silicon on silicon technology in use today. The newest generation of sensors, referred to as the **Leadless Sensor**, allows the engineer to test in environments in which testing was not possible in the past - environments of high vibration, high acceleration and high temperature.*

The prime features are:

- High accuracy*
- High frequency response*
- Excellent long term stability*
- Excellent repeatability*
- Negligible non-linearity and hysteresis*
- Media compatibility*
- Environmentally protected*
- Custom design, compact, light weight, ruggedized*

Kulite has demonstrated for over 50 years that the design and construction of its solid state technology, and the dedication of its engineers provide a superior product, with high reliability for the automotive and aerospace industry.

Kulite transducers are used in a variety of performance racing and test applications.

Kulite pressure transducers have been supplied to the automotive market for use in laboratory testing such as, dynamometers, engine and power train, oil and fuel pumps, piston ring sealing analysis, combustion and exhaust and so many more areas of automotive interest.



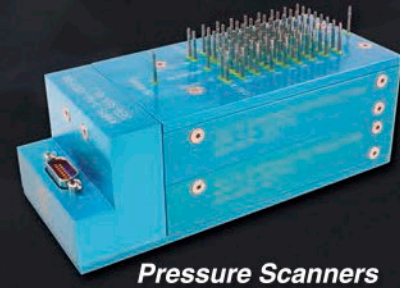
Transmission Testing



Brakes/Hydraulics Systems



Aerodynamics/Under Carriage



Pressure Scanners

Please consult your nearest Kulite Sales Office for your particular application. Data sheets for all products shown are available at our web site: www.kulite.com

Kulite holds 3rd party approval for AS9100 and ISO9001 as well as SIRA and CSA certifications. Kulite is an approved FAA/EASA/CAAC repair station. Please visit our web site for details.



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MCNA

ISO 9001
AND AS9100
CERTIFIED
MANAGEMENT
CERTIFICATION NA

ANAB
ACCREDITED
MANAGEMENT SYSTEMS
CERTIFICATION BODY

SP
C

Ex
CE
0518