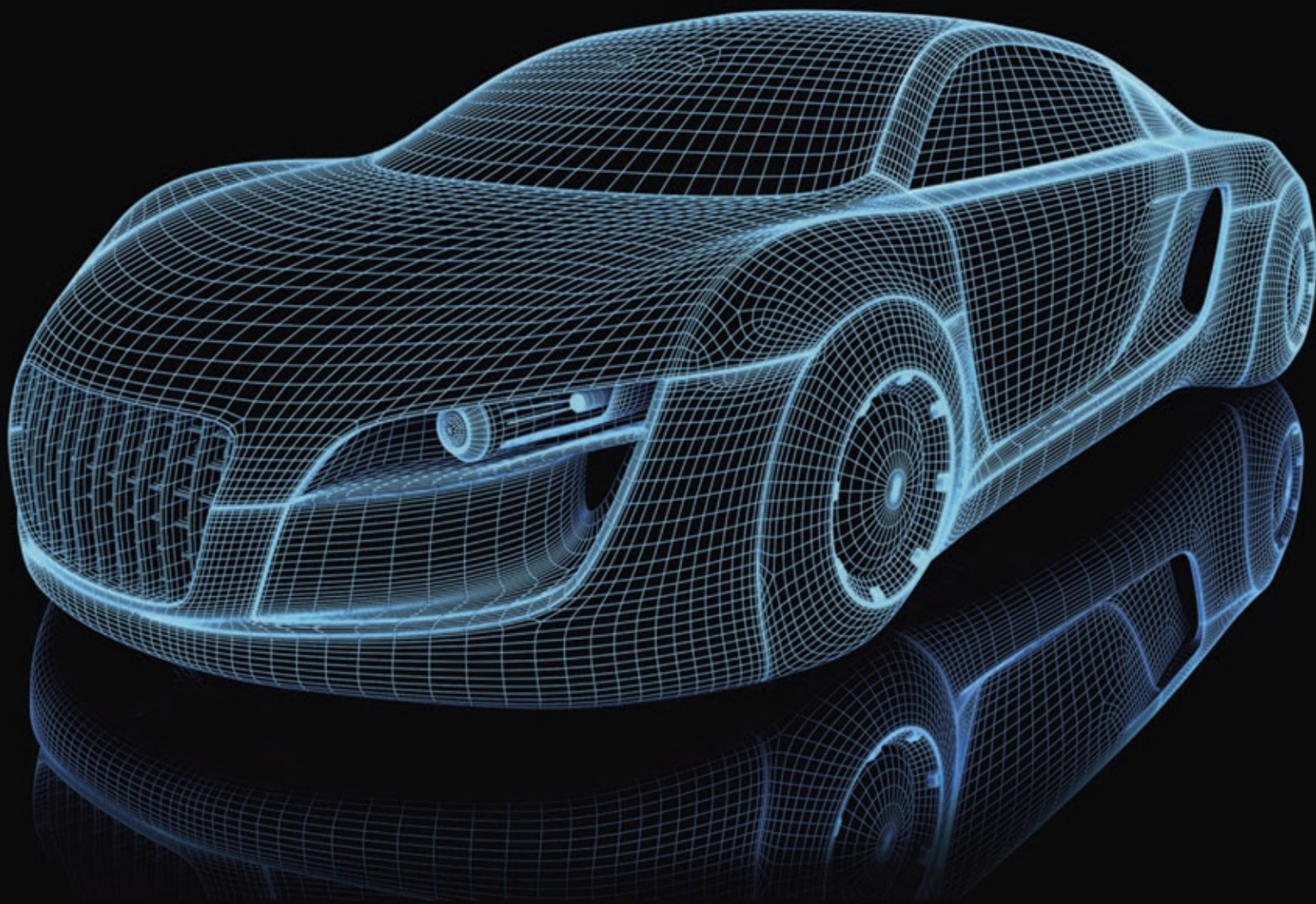


 **kulite**[®]
AUTOMOTIVE
SENSORS



WHERE INNOVATION AND TECHNOLOGY DRIVE THE FUTURE

Advanced Technology For Advanced Performance

KULITE AUTOMOTIVE TRANSDUCERS FEATURES

- Patented Leadless Technology VIS®
- Unlimited Applications
- Operating Capabilities Up To 1000°F (538°C)
Up To 1300°F (704°C) - With Water Cooling
- Pressures Ranging From 1 psi (68 mbar)
Up To 20,000 psi (2,000 bar)
- Threaded Series From 6-32 UNF (3.5 mm)
Up To .375 (10 mm)
- Cylindrical Probes From .062 Dia. (1.6 mm)
Up To .350 Dia. (8 mm)
- Thin Line .062 Wide (1.6 mm)
Up To .50 Wide (12 mm)
- Multiple Flange Configurations Available
- High Temperature Electronics
Operating To 435°F (225°C)
- Combined Pressure With
Temperature Probe
- Redundant Pressure
- Redundant Pressure With
Temperature Probe



The Smallest and Most Reliable Sensors Worldwide

Automotive Sensors

APPLICATION	KULITE P/N	KULITE P/N	APPLICATION	KULITE P/N	KULITE P/N
Aerodynamics	LQ-062	XCL-100	Dynamometer	ETM-375(M)	DCT-750
	XCQ-062	LQ-125		ETQ-12-375(M)	DCT-1000
	XCL-072	LQ-DC-125			IPTE-1000
	LQ-080	XCQ-152	Exhaust	XTEH-7L-190(M)	EWCT-312(M)
	XCQ-080	EC-2DC		XTEH-10L-190(M)	EXTS-312(M)
XCQ-093	LLE-5DC				
Air Bag Systems	XTL-123B-190(M)	HKM-375(M)	Fuel Pressure	XTL-123B-190(M)	ETM-375(M)
	XTL-123C-190(M)	ETM-375(M)		XTL-173-190(M)	ETM-634-312(M)
				HKM-375(M)	ETM-634-375(M)
Airspeed	ET-2DC-312(M)	ET-10DC-312(M)	Hydraulics	ETM-610-312(M)	ETL/ETM-500-312(M)
	ET-3DC-312(M)			ETM-614-312(M)	ETL/ETM-500-375(M)
				ETM-621-312(M)	HKM-375(M)
				ETM-634-312(M)	HEM-375(M)
				ETM-634-375(M)	ETM-375(M)
Brake Pressure/ AntiLock Brake System Testing	XTL-123B-190(M)	ETL-76A-190(M)	In Cylinder Pressure Measurement	EWCT-312(M)	
	XTL-142B-190(M)	ETL-173-190(M)			
	HKL-235(M)	ETM-634-312(M)	Intake Manifold	ETL-184-190(M)	XCL-072
	HKM-312(M)	ETM-634-375(M)		ETL-6-312(M)	XCL-080
	HKM-375(M)	ETM-375(M)		ET-5DC-312(M)	XCL-100
	HKM-113-375(M)	ETM-500-312(M)		LQ-062	XCL-140
	ETM-500-375(M)	LQ-080	XTL-123B-190(M)		
	ETQ-12-500		LQ-125		
			LQ-DC-125		
Coolant and Oil Pressure	XTL-123B-190(M)	ETL-312(M)	Steering System Pressure	XTL-123B-190(M)	XTL-139F-190(M)
	HKL-235(M)	ETL-375(M)		XTL-123C-190(M)	XTL-142B-190(M)
	HKL-312(M)	ETLR-634-312(M)			
	HKL-375(M)	ETL-500-312(M)	Temperature	ETS-X-312(M)	PTS-X-235(M)
	HKL-113-375(M)	ETL-500-375(M)		ETS-X-375(M)	TTS-X-312(M)
HFL-475	EFL-475				
Coolant and Oil Pressure and Temperature	HKL/T-235(M)	ETL/T-312(M)	Transmission Testing	XTL-140	XTL-140B-190(M)
	HKL/T-312(M)	ETL/T-375(M)		XTL-123B-190(M)	XTL-140C-190(M)
	HKL/T-375-375(M)	ETLR/T-634-375(M)			
	HFL/T-475	EFL/T-475			
	EPTS-X-375(M)	ETL/T-500-312(M)			
	ETL/T-500-375(M)				

Kulite Automotive Pressure Sensors

The most versatile sensors manufactured in the world

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
- Accuracy < 0.1%
- 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.

Engine Testing

Fuel Pressure XTL-123B-190(M)

- Easy Installation
- Patented Leadless Technology VIS®
- High Natural Frequency
- 10-32 UNF or M 5 x .8 Thread
- Wide Temperature Range
- Compatible With All Automotive Fluids

Oil Pressure ETL/ETM-634-312(M)

- Smallest High Performance Amplified Transducer Worldwide
- Patented Leadless Technology VIS® (ETL Series)
- High Temperature Electronics 365°F (185°C)
- Rugged Design Provides Compatibility With Most Corrosive and Conductive Materials
- High Overpressure Capability
- Aerospace Quality Components
- Designed and Engineered For Severe Environmental Conditions

Coolant Pressure XTL-123C-190(M)

- Easy Installation
- Patented Leadless Technology VIS®
- High Natural Frequency
- 10-32 UNF or M 5 x .8 Thread
- Wide Temperature Range
- Compatible With All Automotive Fluids

Exhaust Pressure Measurement Intake Valve Measurement Water/Air Cooled Transducer

ETL-184-190(M) ETL-173-190(M) EWCT-312(M)

- High Bandwidth
- 5VDC Output
- Patented Leadless Technology VIS®
- High Signal to Noise Ratio
- No Charge Amp Required
- No Special Cable Required
- Superior Thermal Protection
- Extreme Temperature Capabilities Such As Required In Exhaust Systems

Oil Pressure/Temperature ETL/T-312(M)

- Combined Pressure and Temperature Capability
- Patented Leadless Technology VIS®
- Robust Construction
- Excellent Long Term Stability

Testing and Diagnostic Measurement

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



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



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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.

