

KELLER products are used wherever a pressure quantity needs to be converted into an electrical quantity. After temperature, pressure is the most important measured variable in sensor systems. Examples:

Industry

Pressure controllers in hydraulic systems, pneumatic systems, air conditioning systems, painting booths for car manufacture, spray gun digital displays...

Automotive

Gas-operated vehicles (changeover from gas to petrol; temperature and pressure recording)...

Aircraft

Cabin pressure regulation (if the oxygen masks drop by mistake in an Airbus, a KELLER pressure sensor has malfunctioned...)

Consumer market

Dive computers, coffee machines, altimeters...

Level measurement

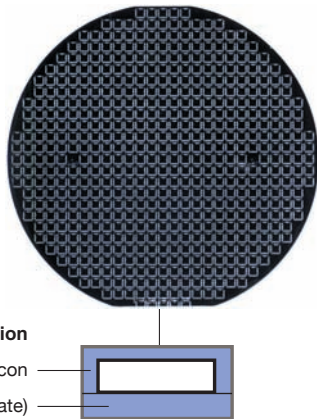
Tank content measurements, water level measurements, large-area water level monitoring of underground lakes with radio transmission...

SOME TERMS AND EXPRESSIONS

Wafer

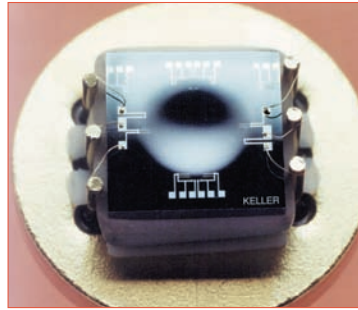
Silicon wafer with up to 3000 IC chips, each with 4 sensor resistors. A blind hole is drilled or etched into the chips from the rear, therefore creating the pressure diaphragm.

In conjunction with the back plate, these chips constitute the sensor.



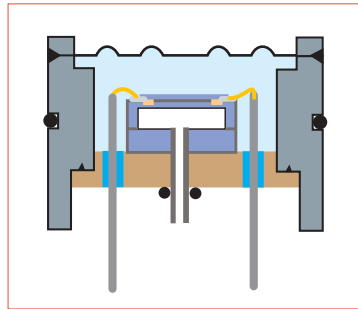
Sensor design

Sensor on steel plate with gold-plated glass feed-throughs and gold or aluminium wires for connecting the resistors, which deform under pressure. The diaphragm deflects under atmospheric pressure (since it is sealed in a vacuum).



OEM transducers (cross-section)

Same sensor design as above, welded into an oil-filled steel housing with separating diaphragm that transmits the pressure to the sensor; can therefore be used in aggressive media.



OEM transducers (picture)

Often copied but never equalled. Diameter of 9 to 19 mm. In steel, Hastelloy, titanium.



Pressure transmitter

A pressure measuring device consisting of a transducer with electronics that outputs a signal that is proportional to the pressure: e.g.

Pressure 0...10 bar
Output signal 0...10 V or 4...20 mA

Transmitter

About 1 million units with a wide variety of designs are manufactured every year, with or without internal O-ring seal.



Digital pressure display units

Electronic pressure gauges with much better resolution and accuracy than mechanical ones. The battery will last for more than 10'000 measurements. Allows additional functionality to be integrated.



A pressure sensor, pressure transducer or pressure transmitter is a measuring device that converts a pressure into an electronic quantity such as mV, V or mA.

KELLER AG für Druckmesstechnik
St. Gallerstrasse 119, Postfach, CH-8404 Winterthur
Tel. +41 (0)52 235 25 25
Fax +41 (0)52 235 25 00

www.keller-druck.com



KELLER

KELLER AG für Druckmesstechnik

The integrated silicon measuring cell was developed at the Honeywell research centre in Minneapolis/USA at the end of the 1960s.

Hannes W. Keller, dipl. Phys. ETH, who was recognised by Honeywell as being the inventor thereof, brought the technology to Kistler in Switzerland in 1971 and established his own company in 1974.

Workforce

400 employees

2008 turnover

≈ 80 million CHF

2008 turnover distribution

Germany	22%
Italy	20%
France	12%
Switzerland	8%
USA	6%
Great Britain	6%
Austria	4%
Sweden	3%
Netherlands	3%
Other (66 countries)	16%

Warehouse/Dispatch

Winterthur and Jestetten (D). All products in the EU region are dispatched via Jestetten (EU logistics centre)

Subsidiaries

Germany, England, France, Netherlands, Italy, Sweden, Sri Lanka, USA (offices: Poland, Czech Republic)

...and various sales partners

