

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

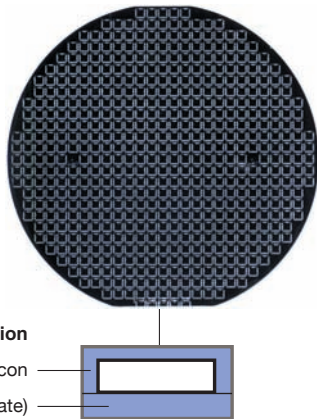
Tank content measurements, water level measurements, large-area water level monitoring of underground lakes with radio transmission...

SOME TERMS AND EXPRESSIONS

Wafer

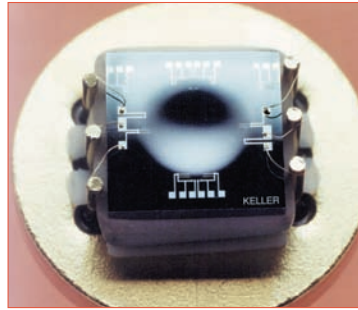
Silicon wafer with up to 3000 IC chips, each with 4 sensor resistors. A blind hole is drilled or etched into the chips from the rear, therefore creating the pressure diaphragm.

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



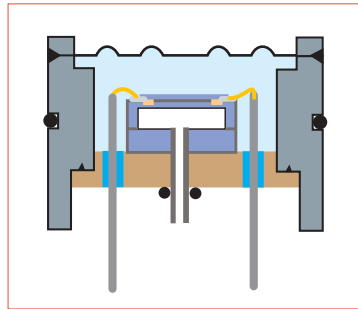
Sensor design

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.

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KELLER

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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



St. Gallerstrasse 119
(headquarters)



St. Gallerstrasse 106
(green towers)



St. Gallerstrasse 122
(blue square, silver square)



St. Gallerstrasse 116
(red corner)

Ground floor

Transmitter calibration and assembly, automotive, automatic test systems, laser service/calibration/labelling for sensor housings, Compaitno manufacture, operating material maintenance

1st floor

Sensor manufacture, installation in housing, oil filling, shipping, warehouse, test furnaces, assessment, mechanical workshops, cafeteria, offices, sensor development

Mezzanine

Accounting, personnel services, wages, test system programming, sales

2nd floor

Management, reception, sales, application engineers, call centre, billing, advertising/marketing, construction office, planning, quality assurance, repairs, human resources

3rd floor

Calibration and assembly of low-cost and classical transmitters, chemical laboratory

The company was established in the top of the front tower under the name of "H.W. Keller Druck- und Kraftmesstechnik" (H.W.Keller Pressure and Force Measuring Techno-logy) in 1974. Today:

1st floor

Cafeteria, conventional welding, special oil fillings

2nd floor

Special evaluation procedures, test laboratory, special transmitter manufacture, laser welding, oil filling

3rd floor

Special sensors, made-to-order manufacture, laser welding

4th floor

Special sensors, made-to-order manufacture, custom manufacture (mechanical)

5th floor & gallery

Prototype manufacture and testing, custom manufacture (mechanical)

Rear tower

Da Vinci room (room for training, conferences, meetings and parties)

All of these buildings are within a radius of 100 m of each other...

Blue square

Ground floor

Sensor manufacture, installation in housing, new sensor technologies, complete SMT assembly line, welding technologies, software development

1st floor

Sales, application engineers, IT, controlling, production management

2. Stock

Rented, training rooms for youth project

Silver square

Ground floor

Conventional welding, oil filling, cafeteria

1st floor

Capacitive transmitters, water level sensors, GSM production, converters, data loggers

2nd floor

Digital transmitters

Basement

Housing assembly for brass and steel sensors, brazing lines (continuous furnaces)

Ground floor

Progres manufacture, Progres-S manufacture, compact transmitters, PromComp line

1st floor

Intelligent pressure gauges, display units, amplifiers, measuring chains

2nd floor

Digital transmitters

Roof

Cafeteria, meeting rooms, private rooms

FC Winterthur

As well as solving pressure technology problems, we also promote regional culture and sport. We are the main sponsor of FC Winterthur...



Front gatehouse

Ground floor

Electronics development, electrical engineering trainee department

1st floor

Development of μ P-based electronics and ASICs, software development, interfaces

2nd floor

Medical engineering, PCB layout

Rear gatehouse

Creche

The „Möwe“ (seagull) creche is a care centre for children whose parents work for KELLER AG, and also has some places for children of non-employees.



KELLER