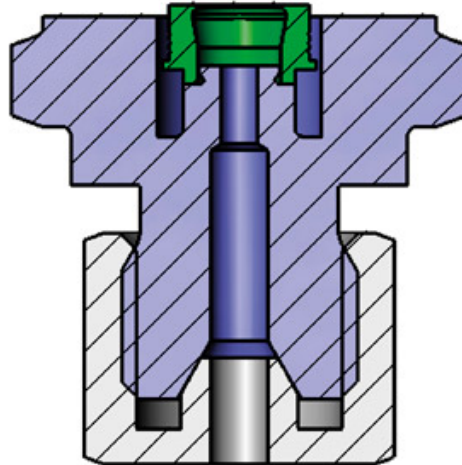




Electronic Pressure Sensors with Maximum Media Resistance Now also from 1.5 Bar



STW Technic, a premier manufacturer of mobile controllers and measurement technology, introduces thin film technology (TFT) pressure transmitters with maximum media resistance within a range starting from 1.5 bar.

NORCROSS, Ga. - June 9, 2015 - [PRLog](#) -- STW Technic, a premier manufacturer of mobile controllers and measurement technology, introduces thin film technology (TFT) pressure transmitters with maximum media resistance within a range starting from 1.5 bar.

STW's continuing investment and research in its tried-and-tested thin film technology continues to deliver innovative new products such as pressure transmitters with maximum media resistance within a range starting from 1.5 bar. By foregoing plastic seals and bonds with parts coming into contact with media, the media resistance is exclusively determined through the use of stainless steel.

The actual measuring element of an electronic pressure transmitter is usually a measurement cell that measures the pressure-induced deformation of a membrane with the aid of elongation-sensitive resistors.

Stainless steel measurement cells have the advantage that they can be welded to the connection piece. A plastic seal or bond is not necessary. The use of stainless steel measurement cells was previously limited to a pressure range over approximately 15 bar. In lower pressure ranges, users had to accept concessions regarding accuracy or large designs.

STW now has thin films which react significantly more sensitively to elongation than the conventional NiCr films. The substantial enlargement of the so-called "K-factor" has been achieved through new materials and changes in thin film processing.

The use of these new films has extended the application possibilities of stainless steel measurement cells. The mechanical design, i.e. also the membrane thickness, has remained the same, but the measurement cells

display an approximately 10x higher sensitivity.

With the tried-and-tested mechanical and electrical construction of the M01 transmitter series, pressure sensors can therefore be manufactured with stainless steel measurement cells and nominal pressures from -1 bar and +1.5 bar (relative).

The figure depicts this construction:

- Measurement cell (green) and pressure connection (blue) made of stainless steel (e.g. 17-4-PH, 316L)
- The joint between these two components is a laser-welded seam
- The seal to the customer system (grey) features a metallic sealing cone

This construction enables pressure measurement with unsurpassed media resistance. The medium only comes into contact with stainless steel. Seals to the measurement cells, bonds, oil filling and the selection of a sealing material according to the medium and temperature resistance all become obsolete.

Simultaneously, this media-resistant pressure transmitter displays – due to the high membrane thickness – an approx. 13x overpressure resistance in comparison to the nominal pressure. The 1.5 bar transmitter can therefore be overloaded up to 20 bar without damage occurring.

Additional data for STW's M01 series:

- Operation temperature -40 ...125°C
- Diverse digital and analog output signals
- Ten different plug connectors, 20 different pressure connections
- Standard accuracy 0.5%, but 0.25% is also possible
- Also available for safety-relevant applications
- Key width size 22

In addition to the extension of media resistance to low pressure ranges, the new thin films provide further advantages which are utilized by STW. Pressure transmitters are being developed which can be configured via software (spread or turn-down) over the full-scale range. A measurement range from 1.5 to 1,000 bar can be covered using three pressure transmitters from the M01 series.

About STW Technic: STW (www.stw-technic.com) an award-winning provider of a full spectrum of freely programmable controllers, I/O modules, pressure sensors and telematics to a wide range of industries such as mining, construction, agriculture and oil and gas. STW controllers, sensors, I/O modules and Telematics units have attained a leading role in these industries due to their rigorous testing, high quality German engineering and unmatched flexibility. All of STW's products are mobile off-highway rated. STW (www.stw-technic.com) is also in the forefront of developing and prototyping hybrid drive technologies – generators and motors – for mobile applications

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