TEST & MEASUREMENT PRODUCT OVERVIEW

STS
global.sensor.excellence

RELIABLE PRESSURE MEASUREMENT TECHNOLOGY DEMANDS A STRONG CORE TECHNOLOGY

A carefully produced pressure sensor is the best prerequisite for accurate measurement results over the entire product life. Pressure transmitters using piezoresistive semiconductor technology are characterized by their high sensitivity and reliability, which is why pressures even in the mbar range can be recorded with great precision. Procedures such as the compensation of temperature-based errors ensure the highest of measurement accuracy. Our pressure transmitters are also highly robust in terms of overpressure.

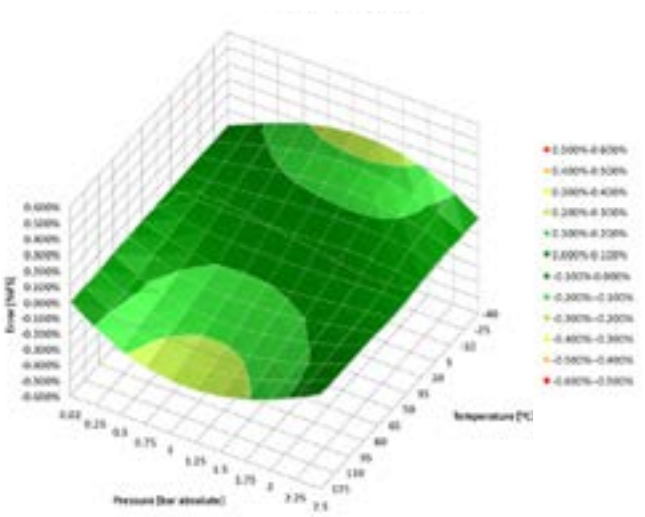
The strengths of our core technology at a glance:

High precision, low total error
Temperature errors are already compensated during production. Each product is optimized for its respective application.

Overpressure
Our standard pressure transmitters can typically tolerate three times the measurement range without suffering any damage. The overpressure can also be tailored according to customer requirements.

Pressure hysteresis and non-repeatability of negligible value
Pressure hysteresis and non-repeatability are uncompensable measurement errors, but due to the high-quality piezoresistive technology of our products, these remain extremely low. The error caused by non-repeatability and hysteresis is typically 0.01% of the applied pressure.

Excellent long-term stability
We use only high-quality measuring cells. To achieve outstanding long-term stability, these are thermally treated. This reduces measurement errors to a minimum and significantly reduces the measurement uncertainty.



Total error – Highest precision over the entire temperature range.

Reliable core technology: Piezoresistive measuring cells

PRESSURE TRANSMITTERS AS INDIVIDUAL AS YOUR APPLICATION

In the development of our products, we always follow a modular design principle. This allows us to manufacture products according to your specifications within a short timeframe. Your test & measurement project or the delivery of a machine under development can thus be realized on schedule.

Your benefits from our modular product design:

Process connection as required
Direct connections to existing threads or to those defined by company standards. The use of threaded adapters, and thus a potential source of leaks, is no longer necessary. In addition, the installation space required is also reduced.

Measurement ranges optimized to application requirements
STS pressure transmitters offer the highest degree of accuracy through measurement ranges precisely adapted to your individual requirements.

	TD	TM	ATM	ATM/T
				
Description	» Piezoresistive Measuring Cell » O-Ring or weldable versions available » Optional as polynomial version for high precision measurements	» Passive Transmitter (mV) » Suitable for high media temperatures » Low current consumption due to high input impedance	» Analog Pressure Transmitter » Suitable for dynamic applications due to analog technology » Manually readjustable	» Analog Pressure and Temperature Transmitter » Temperature measuring range −25...100°C » Two separate analog outputs for pressure and temperature
Pressure range	0 ... 50 mbar −1 ... 1000 bar	0 ... 100 mbar −1 ... 1000 bar	0 ... 50 mbar −1 ... 1000 bar	0 ... 100 mbar −1 ... 1000 bar
Pressure type	Gauge / Absolute / Sealed Gauge	Gauge / Absolute / Sealed Gauge	Gauge / Absolute / Sealed Gauge	Gauge / Absolute / Sealed Gauge
Accuracy	≤ ± 0.25 / 0.5% FS	≤ ± 0.25 / 0.5% FS	≤ ± 0.1 / 0.25 / 0.5% FS	≤ ± 0.1 / 0.25 / 0.5% FS
Total Error (0 ... 70°C)	–	≤ ± 1% FS	≤ ± 1% FS	≤ ± 1 % FS
Response time	< 0,1 ms / 10...90% FS	< 0,1 ms / 10…90% FS	< 1 ms / 10…90% FS	< 1 ms / 10...90% FS
Operating temperature	−40 ... 125°C	−40 ... 125°C	−25 ... 85°C	−25 ... 85°C
Process temperature	−40 ... 150°C	−40 ... 150°C	−40 ... 150°C	−40 ... 150°C
Overpressure	3x Full Scale	3x Full Scale	3x Full Scale	3x Full Scale
Burst pressure	> 850 bar / ≤ 1500 bar	> 850 bar / ≤ 1500 bar	> 850 bar / ≤ 1500 bar	> 850 bar / ≤ 1500 bar

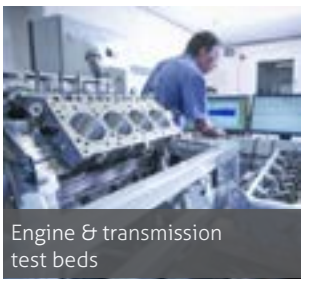
Built-to-order with very short delivery times
As a leading manufacturer of customer-specific pressure measurement technology, we can implement high quality solutions tailored to your own specifications at short notice.

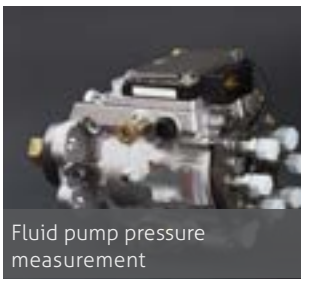
Wide selection of materials for optimally matched solutions
A large selection of seals and housing materials, such as stainless steel, Hastelloy® or titanium, as well as transfer fluids, enables the lifetime optimization of our solutions across many applications.

ATM.mini	ATM.ECO	ATM.1ST	PTM/RS485	DTM.OCS.S
				
» Analog Miniature Pressure Transmitter » Miniature design for applications with space restrictions » Digital error correction	» Analog Pressure Transmitter » Entry level series into precision pressure measurement » Digital error correction	» Analog High Precision Pressure Transmitter » Digital error correction » Accurate pressure measurement over a wide temperature range	» Programmable Pressure Transmitter » Pressure measuring range 1:4 adjustable » Digital (RS485) and analog (4-20 mA) output	» Digital High Precision Pressure Transmitter » Digital error correction » Modbus RS485 output
0 ... 1 bar −1 ... 100 bar	0 ... 100 mbar −1 ... 1000 bar	0 ... 50 mbar −1 ... 1000 bar	0 ... 100 mbar 0 ... 1000 bar	0 ... 200 mbar 0 ... 100 bar
Gauge / Absolute	Gauge / Absolute / Sealed Gauge	Gauge / Absolute / Sealed Gauge	Gauge / Absolute / Sealed Gauge	Gauge / Absolute / Sealed Gauge
≤ ± 0.1 / 0.2% FS	≤ ± 0.2% FS	≤ ± 0.05 / 0.1 / 0.25% FS	≤ ± 0.1 / 0.25% FS	≤ ± 0.03 / 0.05 / 0.15% FS
≤ ± 0.5% FS	≤ ± 0.3% FS	≤ ± 0.1% FS	≤ ± 0.15% FS	≤ ± 0.1% FS
< 1 ms / 10...90% FS	< 1 ms / 10...90% FS	< 1 ms / 10...90% FS	10 ms	10 ms
−40 ... 125°C	−40 ... 125°C	−40 ... 125°C	−25 ... 85°C	−40 ... 85°C
−40 ... 125°C	−40 ... 150°C	−40 ... 150°C	−40 ... 150°C	−40 ... 85°C
3x Full Scale	3x Full Scale	3x Full Scale	3x Full Scale	3x Full Scale
> 350 bar	> 850 bar / ≤ 1500 bar	> 850 bar / ≤ 1500 bar	> 850 bar / ≤ 1500 bar	> 200 bar

Configuration options are limited – Subject to technical changes

ADVANCED PRESSURE SENSING TECHNOLOGY ACROSS THE ENTIRE TEST & MEASUREMENT SPECTRUM


Engine & transmission test beds

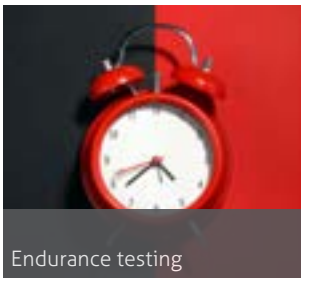

Fluid pump pressure measurement


Brake testing


Leak testing


Calibrating medical equipment


Monitoring hydraulic systems


Endurance testing


Measuring intake & exhaust gas pressures

YOUR COMPETENT PARTNER FOR CUSTOMIZED TEST & MEASUREMENT SOLUTIONS

For more than 30 years, we have been producing customer-specific applications and solutions according to the motto "pressure measurement technology from engineers for engineers."

Why STS is the ideal partner for your test & measurement tasks:

Solutions that exactly meet your specifications
Consider our sales engineers as competent sparring partners to help you develop the ideal pressure measurement solution for your project.

In-house production ensures high quality standards
Thanks to our own production of measuring cells, we can guarantee the high quality of our core technology. We also develop, manufacture and test the solution that meets your requirements in-house.

We advise you on-site
With our global sales network, we can provide you with competent advice on-site. Our know-how, built up over 30years, is always there where you need it.

STS
global.sensor.excellence

STS Sensor Technik Sirnach AG
Rütihofstrasse 8
8370 Sirnach | Switzerland
Phone: +41 71 969 49 29
Email: sales@stssensors.com
Web: www.stssensors.ch

STS Sensoren Transmitter Systeme GmbH
Poststrasse 7
71063 Sindelfingen | Germany
Phone: +49 7031 204 9410
Email: info-de@stssensors.com
Web: www.stssensors.de

STS France
844, Route de la Caille
74350 Allonzier la Caille | France
Phone: +33 450 08 48 15
Email: info-fr@stssensors.com
Web: www.stssensors.fr

STS Italia s.r.l.
Via Lambro 36
20090 Opera (Milano) | Italy
Phone: +39 02 5760 7073
Email: info-italia@stssensors.com
Web: www.stssensors.it

STS Great Britain Ltd.
c/o EBS Ltd.
Innovation Centre, Gallows Hill
CV34 9AE Warwick | United Kingdom
Phone: +44 844 809 9927
Email: contact@stssensors.co.uk
Web: www.stssensors.co.uk

STS Sensor Technology (Shanghai) Co. Ltd
Room 2603-2606 | North Building, Fortune
108 Square | Lane 1839 | Qixin Road
Minhang District | Shanghai | China
Phone: +86 21 33 88 56 93
Email: sales@stssensors.com
Web: www.stssensors.com.cn

www.stssensors.com

10.00.0482.B - 07 / 2018