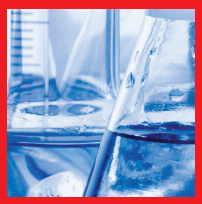
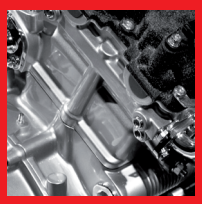



Products & Systems







STS

global.sensor.excellence

www.stssensors.com

STS Group

The STS Group is headquartered and was founded in Sirnach, canton of Thurgau, Switzerland. With the choice of this location, a commitment to Sirnach and the canton of Thurgau was made.

Owing to the positive course of business in the 1990ies, additional subsidiaries were opened in Germany and Italy. After the turn of the millennium, additional subsidiaries in France and England were founded.

Consequently, the STS Group features an advanced development site and manufacturing base in Switzerland as well as its own sales organisations in five European countries. In approximately 50 additional countries, competent sales partners ensure the distribution of STS products.

Water Management

Water can both contribute and threaten life, it is therefore important to know its nature and impact. The products of STS enable you to measure and collect all of the important data and facts.

The Administration of Ground and Surface Water

STS has been a hydrologist partner for many years, and through this work we have developed the experience to become specialists in the monitoring of river, lake and ground water levels.

Water Treatment

Since the inception of water treatment and the monitoring of dirty water, STS has provided renowned manufacturers of respective installations with sensors.

Water Supply

STS specialises in the manufacture of products for the regulation of water levels and pressure regulation in the area of water supply. Among other things, these are used in areas such as reservoir management and monitoring of the freshwater distribution.

Desalination

STS has many years of experience in the area of desalination facilities. In these situations, STS products are primarily used in the pressure monitoring of pipe systems and water level measurement in tanks and basins.

The Administration of Ground and Surface Water

Within the ground water industry, STS provides its highly reliable products to hydrologists / geologists / statistic offices of governments, agricultural cooperatives as well as engineering and service offices. Measuring level & conductivity of the ground water in various places of a country is essential for statistics and early recognition of disasters (e.g. flooding, pollution).

Implemented STS products / Installation specifics:

- Any submersible level and temperature transmitters including dataloggers

Customer benefits / Competitive advantages:

- Most submersible transmitter have a diameter less than 1”
- Our miniature submersible transmitter MTM/N10 has a diameter of 0.39”
- User friendly software
- Titanium versions
- Data and configuration values can remotely be transferred via GSM/GPRS

Water Treatment

Within the waste water collection process, STS transmitters are used to monitor levels in different water basins and pipe pressures etc.

Implemented STS products / Installation specifics:
- Any submersible level and temperature transmitters
- Monitoring the level of different stages during the process of purifying the waste water.

Customer benefits / Competitive advantages:
- Highly reliable instruments to monitor the process
- Most instruments are available in titanium
- Recalibrating of PTM/N on-site
- ATM/NC with a PVDF housing

Other applications within the water treatment process are pumping stations. Most of the pumps need monitoring equipment and pressure indicators for correct operation. There are reservoirs and pipes where pressure and level must be controlled.

Implemented STS products / Installation specifics:
- Any pressure transmitters
- Installed into piping systems

Customer benefits / Competitive advantages:
- Modularity in process- and electrical connections
- Titanium versions

Water Supply

STS offers a variety of pressure transmitters and dataloggers of the water supply industry. Throughout any water supply, in a piping network there is a constant need to monitor the pressure. Next to the pressure monitoring there is also a need to log the data in order to detect pressure losses or unwanted pressure peaks. Municipalities and water authorities worldwide trust in STS products due to the high reliability and accuracy.

Implemented STS products / Installation specifics:
- Any transmitters including dataloggers

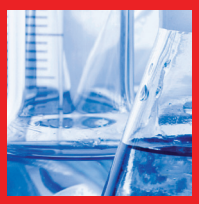
Customer benefits / Competitive advantages:
- Easy installation of transmitters
- User friendly software for dataloggers
- Reliability and stability of transmitters

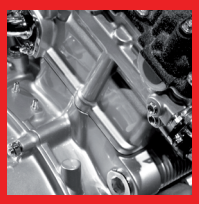
Desalination

Within the desalination process, a lot of water is pushed through almost endless lengths of piping systems, where pressure monitoring is required. Therefore STS products are produced with a corrosion resistant housing and process connection. STS customer's range from producers of desalination equipments, desalination plants, engineering consultants and contracting companies for water plants.

Implemented STS products / Installation specifics:
- Any pressure transmitters

Customer benefits / Competitive advantages:
- Modularity in process- and electrical connections
- All transmitters available in titanium
- Long term stability in corrosive environments





Industrial Fields





Whether as a supplier to the world's largest manufacturers of industrial machinery for various application areas, or directly as a competent partner on site: The many years of experience within STS supports you in choosing the appropriate sensor.

Machine and Plant Construction

STS products are employed in different applications of machine and plant construction, e.g., they are installed on the harbour doors of Rotterdam Port, which protects the city against storm tides. STS has many years of experience both in process automation of hydraulic monitoring and in plant construction.

Test Facility & Prototyping

Due to the modularity and high accuracy of STS sensors, they are often employed in engine test stands, prototypes, and test facilities for high-performance machines.

Shipbuilding & Marine

Many global shipyards and shipping companies rely on STS sensors for the monitoring of water, waste water and fuel tanks - particularly in ballast tank applications. STS is a major supplier in this branch of industry due to the high reliability of its sensors and the ability to manufacture them from titanium.

Gas

Due to their high measuring accuracy and outstanding long-term stability, STS sensors are market-leading when monitoring local distribution nets, either in gas stations.

Oil & Subsea

In both the fields of drilling and drilling for oil, measuring instruments of STS are commonly used by virtue of their high accuracy, reliability, and long-term stability - especially in the offshore area.

Food Industry

The compatibility of ports, hygiene, and temperature resistance in the sterilisation process represent key factors for measuring instruments in this industry. In this environment, STS products are used for level measurement and process monitoring.

Mining

The main areas for the employment of STS products in mining : Hydraulic monitoring, pressure and temperature measurements in explosion endangered zones, and groundwater monitoring.

Aviation

Measurement instruments need to satisfy the high demands of installation and quality requirements. For many years STS has been supplying various key manufacturers with components for both In-flight and ground divisions.

Analysis & Medicine

The highest standards of accuracy and reliability are required in laboratories and medical devices. STS products are perfectly suited to this purpose – an example is their use in pressure and measurements of dialysis equipment.

Chemistry

This sector is characterised by its harsh fields of application. Therefore, a high reliability of sensors must be maintained at all times. The products of STS have proven in this branch of industry.

Machine and Plant Construction

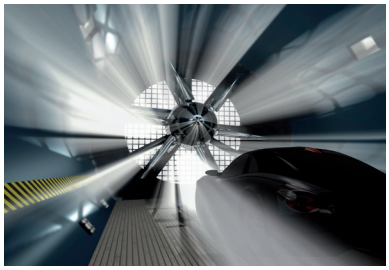
Machine and plant construction create many applications for pressure transmitters. Due to the high flexibility and range of STS products, there are many niche markets within these industries which require customized and reliable products. The need of special pressure ranges or output signals can easily be met with STS products.

Implemented STS products / Installation specifics:
- Any pressure transmitters

Customer benefits / Competitive advantages:
- Wide variety of process- and electrical connections
- Different output signals
- Different materials
- NACE compatible versions

Test Facility & Prototyping

Test facilities within the automotive, aerospace, railway and other industries have an increasing need to qualify new products and designs and to approve the reliability of newly designed products where extensive testing needs to be performed. STS therefore supplies its high precision products to customers with specific needs, within these industries and to manufacturers involved in all aspects of bench testing and prototyping.



Implemented STS products / Installation specifics:
- Any pressure transmitters
- Qualifying and testing new designed products

Customer benefits / Competitive advantages:
- High precision and reliability
- Long term stability
- Customized products
- Wide variety of process- and electrical connections

Shipbuilding & Marine

Large tankers need sensors to help maintain the vessels correct position in the water. Vessels are equipped with ballast tanks containing STS submersible level transmitters. These transmitters are used to maintain the correct ballast tank levels and therefore the safe and optimal ships draft in the water. STS provides submersible level transmitters made of titanium to fulfil the requirements of this hostile environment.

Implemented STS products / Installation specifics:
- Any submersible intrinsically safe level transmitters
- Different ship approvals

Customer benefits / Competitive advantages:
- Titanium versions
- Long term stability
- High precision and reliability

Gas

STS pressure transmitters find their use in gas distribution monitoring. Another field of application is monitoring the bottling and filling processes.

Implemented STS products / Installation specifics:
- Any pressure transmitters including dataloggers
- Different intrinsically safety approvals

Customer benefits / Competitive advantages:
- Wide variety of process- and electrical connections
- High precision and reliability
- Long term stability

Standard gas flow meters don't take account of the density of the gas, which is temperature dependent. Big gas consumers require an accurate measurement of the gas volume they are purchasing. The gas volume correctors are counters which measure the gas flow to determine the volume, which is corrected for temperature. The pressure measurement for this equipment has therefore to be very accurate.

Implemented STS products / Installation specifics:
- Polynomial compensated transducers

Customer benefits / Competitive advantages:
- Highest accuracy and stability
- Customized versions

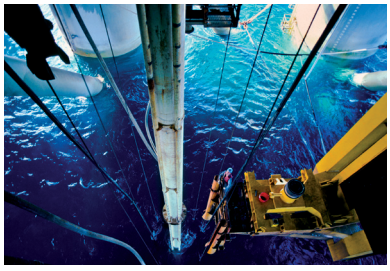
Oil & Subsea

Measuring the level in fuel tanks containing petrol, fuel or oil in mostly hazardous applications, the pressure transmitters need to have intrinsically safety approvals such as ATEX or FM etc.

Implemented STS products / Installation specifics:
- Any intrinsically safe pressure transmitters

Customer benefits / Competitive advantages:
- Intrinsically safety approvals
- High precision and reliability
- Working temperature range down to -40°C

In subsea drilling fields vast infrastructure is installed in order to drill, control, transport, store or inject chemicals into bore holes, etc. Most of these equipments are managed by hydraulics. The valves control in subsea applications is a key responsibility of pressure transmitters. These transmitters have to perform under harsh conditions in depths down to 4000 meters and require a life time up to 25 years!



Implemented STS products / Installation specifics:
- Customer specific products

Customer benefits / Competitive advantages:
- Highly customized products
- Co-engineered together with customer
- High precision and long term stability
- Highest reliability required

Food Industry

STS products can be found throughout the food processing industry, e.g. the process of sugar production. Such an application requires robust and reliable transmitters since this process environment is harsh.

Implemented STS products / Installation specifics:
- Any pressure transmitters

Customer benefits / Competitive advantages:
- Instruments for rough environments
- High precision and reliability
- Long term stability

Mining

Both underground and surface mining operations have many applications requiring the need of specialized pressure transmitters. Robust but precise mechanical housings, combined with highly accurate electrical outputs are two of the underlying needs of the mining industry. STS produces a wide range of pressure measuring devices that have proven to be reliable and durable in extremely harsh working environments.

Implemented STS products / Installation specifics:

- High pressure units with integrated ‘snubbers’ for hydraulic applications
- Submersible sensors for the monitoring of flooded underground mines
- Fluid level measurement of vessels within processing plants

Customer benefits / Competitive advantages:

- IECEx certification for use within explosive atmospheres
- Reliability and accuracy of electrical outputs
- Modular construction allows for product customisation

Aviation

Filters for air and oil in airplanes and helicopters need to be monitored to avoid any obstruction. This is realized by measuring the pressure difference between the input and the output of the filters. Two very small sensors are needed for this purpose, which are welded into the filter units. These units, being made of titanium, the transducers have to be in the same material. The operating temperature of these oil filter units is between 80 and 130°C, therefore the transducers need a very good temperature behaviour.

Implemented STS products / Installation specifics:
- Transducers

Customer benefits / Competitive advantages:
- Small diameters of 12mm
- Completely made of titanium
- Temperature compensation between 80 and 130°C

Analysis & Medicine

Medical equipment need to be regularly serviced and calibrated. STS provides pressure transducers for such medical, service and calibration instrumentation used for control and calibration purposes.

Implemented STS products / Installation specifics:
- Customized transducers

Customer benefits / Competitive advantages:
- Highest accuracy and stability
- Customized requirements

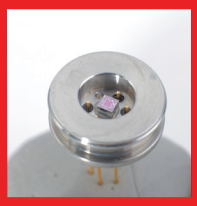
Chemistry

Chemical plants are processes which, if not controlled accurately, can have disastrous consequences. One of the ways to avoid the damages caused by an explosion is to monitor the pressure inside certain equipment. At the beginning of an explosion, the pressure rises with a speed which depends on the processed material. Monitoring the pressure and detecting this pressure rise whose speed exceeds a preselected value can be used to suppress the potential explosion before it matures. This system is very efficient, the explosion being suppressed within a fraction of a second.

Implemented STS products / Installation specifics:
- Full custom system, from the pressure measurement to the alarm set up

Customer benefits / Competitive advantages:
- Customized design
- Firmware and software engineering
- Intrinsically safe design

Products & Systems



At the headquarters of STS Sensor Technik Sirnach AG the development, production, purchasing, international sales and administration are united under one roof.

This structure warrants short decision- making processes, high flexibility, and processes that are very well aligned with each other. In this way, we can comply with our high quality requirements and warrant fast delivery times.

Measurement Cell

The measurement cell represents the heart of any pressure transmitter. At STS Sensor Technik Sirnach AG, these measurement cells are made in-house from scratch. In this area, the important parameters are accuracy, stability, and the maximum overload. The production of pressure measurement cells represents the core competence of STS Sensor Technik Sirnach AG.

Pressure and Temperature Transmitters

This section provides both analogue and digital pressure and temperature transmitters as well as pure temperature transmitters. Pressure and/or temperature transmitters can easily be configured. A pressure transmitter consists of a pressure transducer, a process connection, an electronic circuit, a housing, and an electrical connection.

You have a defined signal for a defined pressure and/or temperature range: The transmitter is built and calibrated according to customers need. All our pressure transmitters are modular, so you will have the maximum flexibility.

Submersible Level and Temperature Transmitters

Submersible pressure transmitters are frequently used for level measurements. These transmitters are equipped with either a waterproof connection or connector and are immersed into the medium. Thanks to the pressure measurement, the level can be determined. A high media resistance of the sensor housing, the seals, and the cable is paramount. For example, titanium-made submersible level probes have proven themselves in long-lasting sea water applications. STS offers these products as well.

Data Loggers / Communication

This section offers information on a range of pressure, temperature, and conductivity data loggers including GSM communication unit. A data logger is appropriate for continuous monitoring of ground and surface waters. It collects measured values of various parameters such as conductivity, temperature, and pressure. For instance, conductivity provides information on the dissolved salt content of water.

The communication module (K-module) is used for remote data retrieval from data loggers. This ensures that no data collection on-site is necessary. The data can be easily and directly accessed from a control station (PC).

Watermanager Solution

Since 2010, the STS watermanager solution has been the flagship in the area of water monitoring. STS provides you with more flexibility and allows you to cost-effectively monitor your hydrological measuring network.

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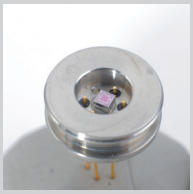
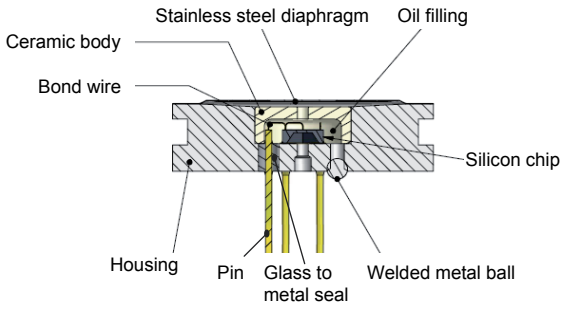



MADE IN
SWITZERLAND

Measurement Cell

Transducers produced at STS are based on the piezoresistive technology. This technology has excellent characteristics:

- Silicon has a much higher gauge factor and therefore a much higher sensitivity than other technologies
- This technology is suitable for low pressure ranges down to 50 mbar FS



The silicon chip is glued into the housing with the glass-to-metal seals and bonded to the pins. This housing is oil filled and closed by a stainless steel, titanium or hastelloy diaphragm. This set-up allows applications in all media which are compatible with the housing material.

Measuring cell
Transducer

Features
- Pressure measuring range: 100 mbar…1000 bar
- Accuracy: ≤ ± 0.50 / 0.25 % FS
- Output signal: mV
- Materials: Stainless steel, Titanium, Hastelloy

Customer Benefits
- Distinctly reliable and stable measuring cell
- Various materials and construction types available

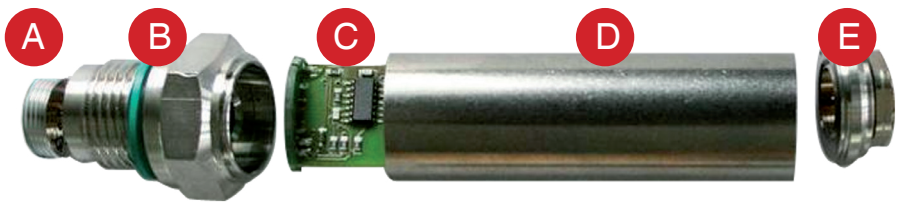
Measuring cell
Polynom Transducer

Features
- Pressure measuring range: 2 bar…100 bar
- Total Error: ≤ ± 0.2 % rdg (30…100 %FS)
- Compensation: -40…60 °C
- Operating temperature: -40…150 °C
- Output signal: mV
- Materials: Stainless steel

Customer Benefits
- Distinctly reliable, very precise and piezo-resistive measuring cell
- Compensation by means of polynomials
- Various materials and construction types available

Pressure and Temperature Transmitters

Pressure and/or temperature transmitters can easily be configured. A pressure transmitter consists of (a) a pressure transducer, (b) a process connection, (c) an electronic circuit, (d) a housing, and (e) an electrical connection.



STS stocks hundreds of different measuring cells, multiple electronic circuits, over 500 different process connections and the most common electrical connections. Therefore we can very quickly produce the pressure or temperature transmitter, which exactly meets your requirements.

With thousands of possible combinations, we offer the flexibility of different housing materials, and customized pressure & temperature ranges.

Pressure transmitters
ATM.1ST

Features
- Pressure measuring range: 100 mbar…1000 bar
- Accuracy: ≤ ± 0.10 / 0.05 % FS
- Operating temperature: -40…125 °C
- Process temperature: -40…150 °C
- Output signal: 0…5 / 0…10 V DC, 4…20 mA
- Total Error Band: ≤ ± 0.30 %FS (0…70 °C)
- Materials: Stainless steel, Titanium

Customer Benefits
- High precision pressure sensor over the whole temperature range
- Electronic compensation
- Modular sensor structure (any process and electrical connections can be combined)
- Can be ordered in different materials
- Very short response times

Intrinsically safe pressure transmitters
ATM.1ST/Ex

Features
- Pressure measuring range: 100 mbar…1000 bar
- Accuracy: ≤ ± 0.10 / 0.05 % FS
- Operating temperature: -40…125 °C
- Process temperature: -40…150 °C
- Output signal: 4…20 mA
- Total Error Band: ≤ ± 0.30 %FS (0…70 °C)
- Materials: Stainless steel, Titanium

Customer Benefits
- Various certificates available
- High precision pressure sensor over the whole temperature range
- Electronic compensation
- Modular sensor structure (any process and electrical connections can be combined)
- Can be ordered in different materials
- Very short response times

Pressure transmitters
ATM.ECO

Features
- Pressure measuring range: 100 mbar…1000 bar
- Accuracy: ≤ ± 0.25 % FS
- Operating temperature: -25…125 °C
- Process temperature: -25…150 °C
- Output signal: 0…5 / 0…10 V DC, 4…20 mA
- Total Error Band: ≤ ± 0.70 %FS (0…70 °C)
- Materials: Stainless steel, Titanium

CE ACS

Customer Benefits
- Optimal price-quality ratio
- Electronic compensation
- Modular sensor structure (any process and electrical connections can be combined)
- Can be ordered in different materials
- Very short response times

Intrinsically safe pressure transmitters
ATM.ECO/Ex

Features
- Pressure measuring range: 100 mbar…1000 bar
- Accuracy: ≤ ± 0.25 % FS
- Operating temperature: -25…125 °C
- Process temperature: -25…150 °C
- Output signal: 4…20 mA
- Total Error Band: ≤ ± 0.70 %FS (0…70 °C)
- Materials: Stainless steel, Titanium

CE Ex GL IECEx

Customer Benefits
- Various certificates available
- Optimal price-quality ratio
- Electronic compensation
- Modular sensor structure (any process and electrical connections can be combined)
- Can be ordered in different materials
- Very short response times

Pressure transmitters
ATM

Features
- Pressure measuring range: 100 mbar…1000 bar
- Accuracy: ≤ ± 0.50 / 0.25 / 0.10 % FS
- Operating temperature: -25…85 °C
- Process temperature: -40…150 °C
- Output signal: 0…5 / 0…10 V DC, 0…20 / 4…20 mA
- Materials: Stainless steel, Titanium

CE ACS

Customer Benefits
- Modular sensor structure (any process and electrical connections)
- Manual readjustment of 'span' and 'offset' possible
- Available with lightning protection
- Can be ordered in different materials
- Short response times

Intrinsically safe pressure transmitters
ATM/Ex

Features
- Pressure measuring range: 100 mbar…1000 bar
- Accuracy: ≤ ± 0.50 / 0.25 / 0.10 % FS
- Operating temperature: -25…85 °C
- Process temperature: -40…150 °C
- Output signal: 4…20 mA
- Materials: Stainless steel, Titanium

CE Ex

Customer Benefits
- Various certificates available
- Modular sensor structure (any process and electrical connections can be combined)
- Manual readjustment of 'span' and 'offset' possible
- Available including lightning protection
- Can be ordered in different materials
- Short response times

Flange pressure transmitters
ATM/F

Features
- Pressure measuring range: 100 mbar…25 bar
- Accuracy: ≤ ± 0.50 / 0.25 / 0.10 % FS
- Operating temperature: -25…85 °C
- Process temperature: -25…100 °C
- Output signal: 0…5 / 0…10 V DC, 0…20 / 4…20 mA
- Materials: Stainless steel

Customer Benefits
- Common flanges are available (Milk Flange DIN11851, Clamp)
- Manual readjustment of 'span' and 'offset' possible
- Electrical connections are modularly arrangeable

Intrinsically safe flange pressure transmitters
ATM/F/Ex

Features
- Pressure measuring range: 100 mbar…25 bar
- Accuracy: ≤ ± 0.50 / 0.25 / 0.10 % FS
- Operating temperature: -25…85 °C
- Process temperature: -25…100 °C
- Output signal: 4…20 mA
- Materials: Stainless steel

Customer Benefits
- Various certificates available
- Common flanges are available (Milk Flange DIN11851, Clamp)
- Manual readjustment of 'span' and 'offset' possible

Electronic pressure switches
ATM/GR

Features
- Pressure measuring range: 100 mbar…1000 bar
- Two potential free switches (48 V, 2 A, 60W)
- Operating temperature: -25…85 °C
- Process temperature: -40…150 °C
- Materials: Stainless steel, Titanium
- Feature: Output signal 0…20 mA / 4…20 mA

Customer Benefits
- Pressure sensor with integrated switching contacts
- Modular sensor structure (any process and electrical connections can be combined)
- Manual readjustment of 'span' and 'offset' possible
- Can be ordered in different materials
- Set points definable

Pressure transmitters with ceramic measuring cell
ATM/K

Features
- Pressure measuring range: 100 mbar…25 bar
- Accuracy: ≤ ± 0.25 % FS
- Operating temperature: -25…85 °C
- Process temperature: -40…125 °C
- Output signal: 4…20 mA
- Materials: Stainless steel

Customer Benefits
- Ceramic measuring cell
- Robust version

Pressure and temperature transmitters
ATM/T

Features
- Pressure measuring range: 100 mbar…1000 bar
- Accuracy: ≤ ± 0.50 / 0.25 / 0.10 % FS
- Temperature measuring range: -50…150 °C
- Operating temperature: -25…85 °C
- Process temperature: -40…150 °C
- 2 Output signals (p & T): 0…10 V DC, 0…20 / 4…20 mA
- Materials: Stainless steel, Titanium

Customer Benefits
- Multi-parameter sensor: pressure and temperature
- Modular sensor structure (any process and electrical connections)
- Manual readjustment of 'span' and 'offset' possible
- Can be ordered in different materials

Digital pressure transmitters
DTM

Features
- Pressure measuring range: 100 mbar…1000 bar
- Accuracy: ≤ ± 0.25 / 0.10 % FS
- Operating temperature: -25…85 °C
- Process temperature: -40…150 °C
- Interface: RS232, RS485
- Materials: Stainless steel, Titanium

Customer Benefits
- Digital pressure sensor with various interfaces
- Modular sensor structure (any process and electrical connections can be combined)
- Can be ordered in different materials

Programmable pressure transmitters
PTM

Features
- Pressure measuring range: 100 mbar…1000 bar
- Adjustable: 1:4 of the nominal range within -5% to +105%
- Accuracy: ≤ ± 0.25 / 0.10 % FS
- Operating temperature: -25…85 °C
- Process temperature: -40…150 °C
- Output signal: 4…20 mA
- Materials: Stainless steel, Titanium
- Feature: Recalibration with software possible

Customer Benefits
- Scalable pressure ranges and output signals
- Flexibly applicable pressure sensor
- Modular sensor structure (any process and electrical connections can be combined)
- Can be ordered in different materials

Programmable intrinsically safe pressure transmitters
PTM/Ex

Features
- Pressure measuring range: 100 mbar…1000 bar
- Adjustable 1:4 of the nominal range within -5% to +105%
- Accuracy: ≤ ± 0.25 / 0.10 % FS
- Operating temperature: -25…85 °C
- Process temperature: -40…150 °C
- Output signal: 4…20 mA
- Materials: Stainless steel, Titanium
- Feature: Recalibration with software possible

Customer Benefits
- Various certificates available
- Scalable pressure ranges and output signals
- Available with surge (lightning) protection
- Flexibly applicable pressure sensor
- Modular sensor structure (Any process and electrical connections Can be combined)
- Can be ordered in different materials

Programmable pressure and temperature transmitters
PTM/RS485

Features
- Pressure measuring range: 100 mbar…1000 bar
- Adjustable 1:4 of the nominal range within -5% to +105% (analog output)
- Accuracy: ≤ ± 0.25 / 0.10 % FS
- Temperature measuring range: -25…85 °C
- Operating temperature: -25…85 °C
- Process temperature: -40…150 °C
- 2 Output signals (p & T): 4…20 mA
- Interface: RS485 (Modbus RTU)
- Materials: Stainless steel, Titanium
- Feature: Recalibration with software possible

CE ACS

Customer Benefits
- Scalable pressure ranges and output signals
- Flexibly applicable pressure sensor
- Digital and analogue output signal in one sensor
- Available as multi-parameter sensor (pressure & temperature)
- Modular sensor structure (any process and electrical connections can be combined)
- Available with lightning protection
- Can be ordered in different materials

Passive pressure transmitters
TM

Features
- Pressure measuring range: 100 mbar…1000 bar
- Accuracy: ≤ ± 0.50 / 0.25 % FS
- Operating temperature: -40…125 °C
- Process temperature: -40…150 °C
- Output signal: mV
- Materials: Stainless steel, Titanium

CE

Customer Benefits
- Unreinforced output signal
- Modular sensor structure (any process and electrical connections can be combined)
- Manual readjustment of 'span' and 'offset' possible
- Can be ordered in different materials
- Short response times

Passive intrinsically safe pressure transmitters

TM/Ex

Features

- Pressure measuring range: 100 mbar…1000 bar
- Accuracy: ≤ ± 0.50 / 0.25 % FS
- Operating temperature: -40…125 °C
- Process temperature: -40…150 °C
- Output signal: mV
- Materials: Stainless steel, Titanium

Customer Benefits

- Various certificates available
- Unreinforced output signal
- Modular sensor structure (any process and electrical connections can be combined)
- Can be ordered in different materials
- Short response times

Temperature transmitters

TS 100

Features

- Temperature measuring range: -50…150 °C
- Operating temperature: -25…85 °C
- Process temperature: -50…150 °C
- Output signal: 0…5 / 0…10 V DC, 0…20 / 4…20 mA
- Materials: Stainless steel
- Feature: 850 bar proof pressure

Customer Benefits

- Customised matching of the measuring range
- Customer specific temperature sensor

Submersible Level and Temperature Transmitters

STS produces reliable and long-lasting submersible level transmitters. These transmitters are available with pressure ranges up to 25 bar (250 mH2O), with an optional temperature output, different electronic circuits and housing materials (e.g. titanium).

These submersible transmitters have either a fixed or an optional field replaceable cable connection.

Submersible level transmitters
ATM.1ST/N

Features
- Pressure measuring range: 1…250 mH2O
- Accuracy: ≤ ± 0.10 % FS
- Total Error Band: ≤ ± 0.30 %FS (-5…50 °C)
- Operating temperature: -5…80 °C
- Process temperature: -5…80 °C
- Output signal: 0…5 / 0…10 V DC, 4…20 mA
- Materials: Stainless steel, Titanium

Customer Benefits
- High precision pressure sensor over the whole temperature range
- Electronic compensation
- Any process connections available
- Can be ordered in different materials

Intrinsically safe submersible level transmitters
ATM.1ST/N/Ex

Features
- Pressure measuring range: 1…250 mH2O
- Accuracy: ≤ ± 0.10 % FS
- Total Error Band: ≤ ± 0.30 %FS (-5…50 °C)
- Operating temperature: -5…80 °C
- Process temperature: -5…80 °C
- Output signal: 4…20 mA
- Materials: Stainless steel, Titanium

Customer Benefits
- Various certificates available
- High precision pressure sensor over the whole temperature range
- Electronic compensation
- Any process connections available
- Can be ordered in different materials

Submersible level transmitters
ATM.ECO/N

Features
- Pressure measuring range: 1…250 mH2O
- Accuracy: ≤ ± 0.25 % FS
- Total Error Band: ≤ ± 0.70 %FS (-5…50 °C)
- Operating temperature: -5…80 °C
- Process temperature: -5…80 °C
- Output signal: 0…5 / 0…10 V DC, 4…20 mA
- Materials: Stainless steel, Titanium

Customer Benefits
- Optimal price-quality ratio
- Electronic compensation
- Any process connections available
- Can be ordered in different materials

Intrinsically safe submersible level transmitters
ATM.ECO/N/Ex

Features
- Pressure measuring range: 1…250 mH2O
- Accuracy: ≤ ± 0.25 % FS
- Total Error Band: ≤ ± 0.70 %FS (-5…50 °C)
- Operating temperature: -5…80 °C
- Process temperature: -5…80 °C
- Output signal: 4…20 mA
- Materials: Stainless steel, Titanium

Customer Benefits
- Various certificates available
- Optimal price-quality ratio
- Electronic compensation
- Any process connections available
- Can be ordered in different materials

Submersible level transmitters
ATM/N

Features
- Pressure measuring range: 1…250 mH2O
- Accuracy: ≤ ± 0.50 / 0.25 / 0.10 % FS
- Operating temperature: -5…80 °C
- Process temperature: -5…80 °C
- Output signal: 0…5 / 0…10 V DC, 0…20 / 4…20 mA
- Materials: Stainless steel, Titanium
- Feature: Optional surge (lightning) protection

Customer Benefits
- Any process connections available
- Recalibration possible
- Available with lightning protection
- Can be ordered in different materials

Intrinsically safe submersible level transmitters
ATM/N/Ex

Features
- Pressure measuring range: 1…250 mH2O
- Accuracy: ≤ ± 0.50 / 0.25 / 0.10 % FS
- Operating temperature: -5…80 °C
- Process temperature: -5…80 °C
- Output signal: 4…20 mA
- Materials: Stainless steel, Titanium
- Feature: Optional surge (lightning) protection

Customer Benefits
- Various certificates available
- Optimal price-quality ratio
- Any process connections available
- Can be ordered in different materials

Submersible level and temperature transmitters
ATM/N/T

Features
- Pressure measuring range: 1…250 mH2O
- Accuracy: ≤ ± 0.50 / 0.25 / 0.10 % FS
- Temperature measuring range: -5…80 °C
- Operating temperature: -5…80 °C
- Process temperature: -5…80 °C
- 2 Output signals (p & T): 0…10 V DC, 0…20 / 4…20 mA
- Materials: Stainless steel, Titanium

Customer Benefits
- Multi-parameter diving probe: pressure and temperature
- Can be ordered in different materials

Submersible level transmitters
ATM/N 19

Features
- Pressure measuring range: 1…250 mH2O
- Accuracy: ≤ ± 0.50 / 0.25 / 0.10 % FS
- Operating temperature: -5…80 °C
- Process temperature: -5…80 °C
- Output signal: 0…5 / 0…10 V DC, 4…20 mA
- Materials: Stainless steel
- Feature: 19 mm diameter

Customer Benefits
- Small dimensions, suitable for 1" tubes

Submersible level transmitters with ceramic measuring cell

ATM/K/N

Features

- Pressure measuring range: 1…200 mH2O
- Accuracy: ≤ ± 0.25 % FS
- Operating temperature: -5…50 °C
- Process temperature: -5…50 °C
- Output signal: 4…20 mA
- Materials: Stainless steel
- Feature: Optional surge (lightning) protection

Customer Benefits

- Ceramic measuring cell
- Robust version

Submersible level transmitters for corrosive media

ATM/NC

Features

- Pressure measuring range: 1…250 mH2O
- Accuracy: ≤ ± 2.0 % FS
- Operating temperature: -5…50 °C
- Process temperature: -5…80 °C
- Output signal: 0…5 / 0…10 V DC, 0…20 / 4…20 mA
- Materials: PVDF
- Feature: Optional surge (lightning) protection

Customer Benefits

- With regard to chemical resistance, a unique sensor on the market
- High media compatibility thanks to a special PVDF-housing

Intrinsically safe submersible level transmitters for corrosive media

ATM/NC/Ex

Features

- Pressure measuring range: 1…250 mH2O
- Accuracy: ≤ ± 2.0 % FS
- Operating temperature: -5…50 °C
- Process temperature: -5…80 °C
- Output signal: 4…20 mA
- Materials: PVDF
- Feature: Optional surge (lightning) protection

Customer Benefits

- With regard to chemical resistance, a unique sensor on the market
- High media compatibility thanks to a special PVDF-housing

Digital submersible level transmitters

DTM/N

Features

- Pressure measuring range: 1…250 mH2O
- Accuracy: ≤ ± 0.25 / 0.10 % FS
- Operating temperature: -5…80 °C
- Process temperature: -5…80 °C
- Interface: RS232, RS485
- Materials: Stainless steel. Titanium

Customer Benefits

- Digital pressure sensor with various interfaces
- Any process connections available
- Can be ordered in different materials

Programmable submersible level transmitters
PTM/N

Features
- Pressure measuring range: 1…250 mH2O
- Accuracy: ≤ ± 0.25 / 0.10 % FS
- Adjustable 1:4 of the nominal range within -5% to +105%
- Operating temperature: -5…80 °C
- Process temperature: -5…80 °C
- Output signal: 4…20 mA
- Materials: Stainless steel, Titanium
- Feature: Recalibration with software possible

Customer Benefits
- Scalable pressure ranges and output signals
- Flexibly applicable pressure sensor
- Any process connections available
- Available with lightning protection
- Can be ordered in different materials

Programmable intrinsically safe submersible level transmitters
PTM/N/Ex

Features
- Pressure measuring range: 1…250 mH2O
- Accuracy: ≤ ± 0.25 / 0.10 % FS
- Adjustable 1:4 of the nominal range within -5% to +105%
- Operating temperature: -5…80 °C
- Process temperature: -5…80 °C
- Output signal: 4…20 mA
- Materials: Stainless steel, Titanium
- Feature: Recalibration with software possible

Customer Benefits
- Various certificates available
- Scalable pressure ranges and output signals
- Flexibly applicable pressure sensor
- Any process connections available
- Can be ordered in different materials

Programmable submersible level and temperature transmitters
PTM/N/RS485

Customer Benefits
- Scalable pressure ranges and output signals
- Flexibly applicable pressure sensor
- Digital and analogue output signal in one sensor
- Available as multi-parameter sensor (pressure & temperature)
- Any process connections available
- Available with lightning protection
- Can be ordered in different materials

Features
- Pressure measuring range: 1…250 mH2O
- Adjustable 1:4 of the nominal range within -5% to +105% (analog output)
- Accuracy: ≤ ± 0.25 / 0.10 % FS
- Temperature measuring range: -25…85 °C
- Operating temperature: -5…80 °C
- Process temperature: -5…80 °C
- 2 Output signals (p & T): 4…20 mA
- Interface: RS485 (Modbus RTU)
- Materials: Stainless steel, Titanium
- Feature: Recalibration with software possible, optional surge (lightning) protection

CE ACS

Programmable submersible level and temperature transmitters
PTM/N/SDI-12

Customer Benefits
- Scalable pressure ranges and output signals
- Flexibly applicable pressure sensor
- Any process connections available
- Available including lightning protection
- Can be ordered in different materials

Features
- Pressure measuring range: 5…250 mH2O
- Accuracy: ≤ ± 0.25 / 0.10 % FS
- Temperature measuring range: -25…85 °C
- Operating temperature: -5…50 °C
- Process temperature: -5…50 °C
- Interface: SDI-12 (V1.3)
- Materials: Stainless steel, Titanium
- Feature: Recalibration possible, Adjustable units

CE

Miniature submersible level transmitters
MTM/N 10

Features
- Pressure measuring range: 10…100 mH2O
- Accuracy: ≤ ± 0.50 / 0.25
- Operating temperature: -5…50 °C
- Process temperature: -5…50 °C
- Output signal: mV
- Materials: Stainless steel, Titanium
- Feature: Level transmitter with 10 mm diameter, Versions with ATM/N or DL/N 70 possible

Customer Benefits
- Submersible level transmitter with a very small diameter
- Both passive and active versions can be ordered

Passive submersible level transmitters
TM/N

Features
- Pressure measuring range: 1…250 mH2O
- Accuracy: ≤ ± 0.50 / 0.25 % FS
- Operating temperature: -5…80 °C
- Process temperature: -5…80 °C
- Output signal: mV
- Materials: Stainless steel, Titanium

Customer Benefits
- Unreinforced output signal
- Any process connections available
- Can be ordered in different materials

Passive intrinsically safe submersible level transmitters
TM/N/Ex

Features

- Pressure measuring range: 1…250 mH2O
- Accuracy: ≤ ± 0.50 / 0.25 % FS
- Operating temperature: -5…80 °C
- Process temperature: -5…80 °C
- Output signal: mV
- Materials: Stainless steel, Titanium

Customer Benefits

- Various certificates available
- Unreinforced output signal
- Any process connections available
- Can be ordered in different materials

Dataloggers / Communication

STS offers a variety of dataloggers for surface & groundwater, water management or industrial applications.

All dataloggers are battery powered and controlled by user friendly software and measure different parameters such as level / pressure, temperature and conductivity.

The industrial dataloggers are also available with an intrinsically safety certificate (Ex) and can easily be installed into pipes or tanks. By use of our communication module, the data can be transferred remotely.

Datalogger
DL

Features

- Pressure measuring range: 100 mbar…1000 bar
- Accuracy: ≤ ± 0.25 / 0.10 % FS
- Operating temperature: -40…85 °C
- Process temperature: -40…100 °C
- Interface: RS232
- Materials: Aluminium (Housing), Stainless steel
- Feature: Battery operation, Measurement interval 2s… 24h, 130'000 Measurement values

Customer Benefits

- Industry data logger exhibiting a good quality-price ratio
- Various process connections

Datalogger
DL/N

Features

- Pressure measuring range: 1…250 mH2O
- Accuracy: ≤ ± 0.25 / 0.10 % FS
- Operating temperature: -40…85 °C
- Process temperature: -5…80 °C
- Interface: RS232
- Materials: Aluminium (Housing), Stainless steel
- Feature: Battery operation, Measurement interval 2s… 24h, 130'000 Measurement values

Customer Benefits

- Industry data logger exhibiting a good quality-price ratio
- Available with miniature probe (MTM/N/10)
- Various process connections

Intrinsically safe dataloggers
DL/Ex

Features
- Pressure measuring range: 100 mbar…1000 bar
- Accuracy: ≤ ± 0.25 / 0.10 % FS
- Operating temperature: -40…85 °C
- Process temperature: -40…100 °C
- Interface: RS232
- Materials: Aluminium (Housing), Stainless steel
- Feature: Battery operation, Measurement interval 2s… 24h, 130'000 Measurement values

Customer Benefits
- Various certificates available
- Industry data logger exhibiting a good quality-price ratio
- Various process connections

Intrinsically safe dataloggers
DL/N/Ex

Features
- Pressure measuring range: 1…250 mH2O
- Accuracy: ≤ ± 0.25 / 0.10 % FS
- Operating temperature: -40…85 °C
- Process temperature: -5…80 °C
- Interface: RS232
- Materials: Aluminium (Housing), Stainless steel
- Feature: Battery operation, Measurement interval 2s… 24h, 130'000 Measurement values

Customer Benefits
- Various certificates available
- Industry data logger exhibiting a good quality-price ratio
- Available with miniature probe (MTM/N /10)
- Various process connections

Datalogger
DL/N 70

Customer Benefits
- Multi-parameter probe: pressure, temperature and conductivity
- Can be installed into 2'' piezoelectric tubes
- Inundation-resistant battery housing
- Available with miniature probe (MTM/N/10)
- Compact version without battery housing (only absolute pressure)

Features
- Pressure measuring range: 1…250 mH2O
- Accuracy: ≤ ± 0.25 / 0.10 % FS
- Temperature measuring range: -5…50 °C
- Conductivity measuring range: 20 µS/cm…20 mS/cm
- Operating temperature: -5…50 °C
- Process temperature: -5…50 °C
- Interface: RS485
- Materials: Stainless steel
- Feature: Battery operation, Measurement interval 0.5s… 24h, 500'000 Measurement values

CE ACS

Communication module for dataloggers
GSM

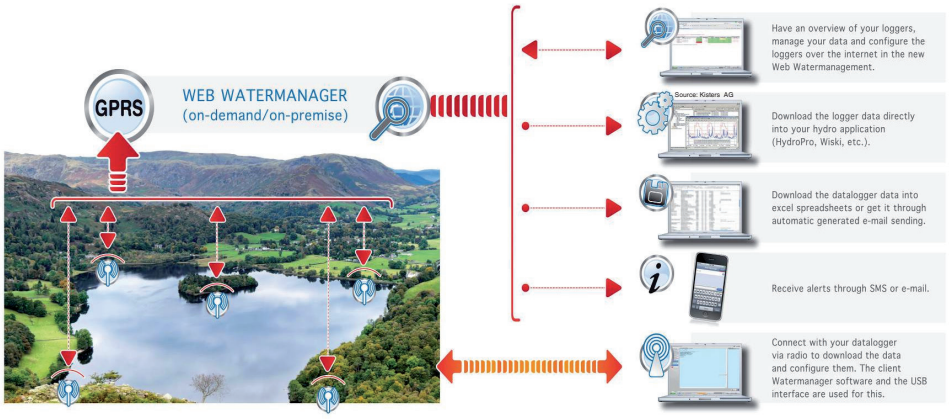
Customer Benefits
- GSM-communication module
- Can be combined with DL or DL/N/70

Features
- Operating temperature: -20…55 °C
- Data transfer: GSM
- Frequency band: 900, 1800/1900 MHz (Triband)
- Materials: Aluminium (Housing)
- Feature: Battery operation,
Readout time: 36s/1000 Measurement   values

CE

Watermanager Solution

Using the watermanager solution you are able to manage and monitor your dataloggers easily, at any time and from everywhere.



Watermanager solution

DL.WMS/GPRS/R

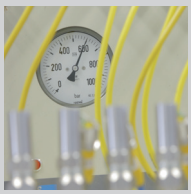
Customer Benefits

- Integrated water management solution
- Multi-parameter probe: pressure and temperature
- Various integrated communication technologies
- Inundation-resistant communication unit
- The humidity, temperature and battery lifespan of the device are constantly monitored
- Can be installed into 2'' piezoelectric tubes
- Web-based software solution

Features

- Pressure measuring range: 1…250 mH2O
- Accuracy: ≤ ± 0.25 / 0.10 % FS
- Temperature measuring range: -5…80 °C
- Operating temperature: -5 ... 80 / -5 ... 50 °C (logger)
- Process temperature: -5…80 °C
- Radio interface: 433 MHz
- Data transfer: GSM/GPRS
- Frequency band: 850/900, 1800/1900 MHz (Quadband)
- Materials level transmitter: Stainless steel, Titanium
- Materials logger: Plastic, Stainless steel
- Feature: Battery operation, 250'000 Measurement values, Measurement interval 2s…12h, Online programmable, Housekeeping data (temperature, humidity, battery voltage)

CE



Product Management

Review:
STS is stepping up efforts to increase global sales of its products and system solutions in 14 industries / fields of activities. Its diverse product portfolio offers customers tailor-made solutions for everyday challenges.

Latest news:
A titanium version of the MTM/N 10, world's smallest level transmitter, was developed during spring of this year at the request of STS customers. The first tests for a transducer with metal-to-metal seal (elastomer-free version) have also been carried out. This is an addition to the welded version and can currently measure higher pressure ranges up to 690 bar. Further external testing also had successful results and STS has now been awarded ACS certification (Attestation de conformité sanitaire) – this is key for the drinking water market in France. Investments in the area of transducer research are already starting to pay off. Adjustments made to the tranducer's design mean that the measurement cell now has increased solvent resistance. In addition it was possible to improve the properties of measurement cells for use in negative pressure ranges.

Outlook:
The new ATM.1ST/T and ATM.1ST/N/T pressure and temperature sensors will be available at the end of Q1/2012 and are based on the new analog platform. STS was able to make improvements to one of its measurement cells as a result of basic research which, in turn, enabled the company to develop a differential pressure sensor that will be ready for mass production in early 2012. The miniature version of the ATM.1ST is also hotly anticipated and will likewise be launched in the first quarter of next year. STS will then unveil an innovation from its digital product portfolio next summer – just in time for the company's 25th birthday.

Accessories

Appropriate and complementary to our sensors, data loggers, and submersible transmitters.

Antennas
Whether rod, stub or planner antennas, the product range of STS Sensor Technik Sirnach AG meets your requirements.

Batteries
It seems unlikely to happen, but in case a battery should not be able to keep up with the life span of our dataloggers.

Cables
In this category different cable socket connectors, extension cables as well as communication cables are available.

Converter & Modem
For an impeccable communication between your workstation and our sensor.

PC and Software
The appropriate software for our digital sensors.

PDA
To ensure that your dataloggers may be easily and conveniently read and programmed, STS provides the appropriate device.

Caps & Adapters
The range of protection and sealing caps offered by STS Sensor Technik Sirnach AG is geared towards the demanding requirements in field use.

Additional Accessories
Ground pressure filter, screw cap, head-mounted display, adjustment screwdriver, etc.

Certificates

As a globally operating company, STS Sensor Technik Sirnach AG holds the necessary global certifications and endorsements.

ABS
ACS
ATEX
CE
CSA
DNV
FM (USA)
FM-C (CANADA)
GL
GOST
IECEX
ISO

Imprint

Product Catalogue ‘Products & Systems’

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STS Sensor Technik Sirnach AG, Marketing & Communications

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STS Sensor Technik Sirnach AG, Marketing & Communications

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