

Pressure Transmitters BROCHURE

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2600T Pressure Transmitters

Pressure measurement made easy

Expertise in technology

More than a century of experience

To operate any process efficiently, it is essential to measure, actuate, record and control. With ABB's measurement products and solutions, you are receiving the best technology combined with the most reliable products available on the market.

ABB offers a broad range of life cycle services for optimum product performance. A global network of measurement products specialists delivers local service and support.

Research and development is a vital source of ABB's technology leadership. It builds on the foundation of existing technologies for new applications, and continues to develop the breakthrough technologies needed to meet the challenges of the future.

ABB and its heritage companies have been leaders in innovation and technology for more than 100 years.

Aztec

Bailey

BOMEM

Bush Beach Engineering
— Limited —

**FISCHER
& PORTER** 

Hartmann & Braun

K-TEK

Kent

Pressductor®

 **SENSYCON**

Schoppe & Faeser

Taylor

TBI-Bailey

TORBAR
FLOWMETERS LTD

TOTALFLOW
MEASUREMENT & CONTROL SYSTEMS

Comprehensive measurement solutions

Serving your industry

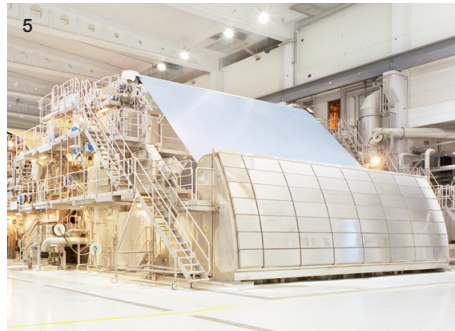
ABB's measurement products portfolio:

- Analytical measurement
- Flow measurement
- Natural gas measurement
- Actuators and positioners
- Pressure measurement
- Temperature measurement
- Recorders and controllers
- Level measurement
- Device management
- Force measurement
- Service

ABB measurement products provide world-class measurement solutions for any industry, utility or municipality. Innovations deliver technological solutions to make it easier for you to run your plants. ABB's measurement products are based on common technology, providing a common look and feel and method of operation. This results in products, that are easy to configure, easy to integrate, and easy to maintain.

For more information please visit:
www.abb.com/measurement

1 Water and waste water | 2 Power and industrial steam | 3 Chemical and petrochemical | 4 Oil and gas | 5 Pulp and paper | 6 Minerals | 7 Metals | 8 Food and beverage | 9 Pharmaceuticals



Services for measurement products

Performance optimization solutions



Dedicated to optimizing your plant productivity and performance, ABB's services enable improved utilization and performance of your automation equipment, processes, and personnel. ABB provides support from the planning phase right through to commissioning and servicing.

ABB's service specialists are strategically located to support all products and systems globally. ABB's broad scope of services lays the foundation for end-to-end support for your enterprise.

ABB's performance optimization services:

- Consulting
- Installation and commissioning
- Maintenance and field services
- Asset management systems
- Fieldbus and wireless solutions
- Project execution
- Migration and upgrades
- Repairs and calibration
- Spare parts and consumables
- Support, remote service, and training
- Maintenance support agreements
- In the field meter verification
- Meter recalibration

ABB service – value added services for bottom-line results.

2600T produced by evolution

Discover all the innovative features

A top quality transmitter family

Unrivalled in its expertise and longstanding tradition in transmitter manufacturing, ABB offers the world's most comprehensive range of pressure measurement products. The 2600T family provides products specifically designed to meet the widest range of applications ranging from arduous conditions in offshore oil and gas to the laboratory environment of the pharmaceutical industry.

- New intuitive HMI for quick commissioning
- Reliable sensor technologies
- Easy to install and configure
- Multivariable version
- Taylor Instrument's all-welded technology for diaphragm seals
- Best-in-class stability



Information whenever you need it: device management, fieldbus and wireless

ABB's measurement products feature the latest in onboard diagnostics and intelligence to help you run your business more effectively. ABB gives you the choice to decide which communication protocols you would like to use to access this information. You can select from a family of tools and from different ways to manage the lifecycle of the devices in order to get the most out of your investment.

ABB's device management product range includes

- Fieldbus and wireless solutions
- Mobility handhelds
- Asset Vision software
- Scalable service management



ABB, common features across the range

Unique ease of operation – innovative plug & play graphic display

The user friendly HMI allows simple and intuitive transmitter operation. The “Easy Setup” procedure allows the user to easily commission the instrument without the need for an expensive hand-held terminal.

The Communication You Need

ABB Instrumentation products are available with HART / 4-20 mA, PROFIBUS PA, FOUNDATION Fieldbus, and MODBUS communication protocols. The 266 series allows you to preserve your investment allowing an upgrade from HART to any other available communication protocol in minutes with no need to remove the device from its installation or to reconfigure it. The modular construction of the 266 series enables field repairs to be carried out so that the instrument is back in operation within 5 minutes of failure detection.



The perfect solution for your application

The 261 and the 364 space saver pressure transmitters with stainless steel housings offer an optimum solution for extreme environments where space and weight are critical. The new S26 diaphragm seals provide an optimum solution for high vacuum/high temperature applications.

Reliability in severe service with S26 diaphragm seals

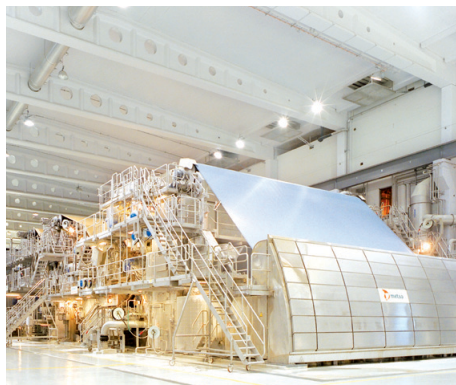
ABB remote seals have a high integrity all-welded construction as standard. This construction is based on decades of experience in manufacturing remote seal systems by Taylor Instruments and produces the optimum solution for vacuum applications.

The S26 diaphragm seal range is manufactured by ABB and offers one of the widest choices of process connections and wetted materials on the market today. ABB gives customers the opportunity of choosing among different special materials: Tantalum, Superduplex, Inconel 625, Monel™, Hastelloy C-276™ and unique to ABB Hastelloy C-2000™. The diaphragm seal portfolio includes different coatings such as anti-abrasion Diaflex, gold plated to prevent hydrogen penetration, anti-stick and anticorrosion, available as standard.

The broad range of wetted materials provides long lasting solutions for highly corrosive applications.

ABB also offer special designed remote seals for individual process solutions.

S26 seals repair is supported by the ABB pressure service centers worldwide.



261 pressure transmitters

The quality cost-effective solution

The 261 series is the result of our focus on essential features for pressure and level measurement

- Compact housing
- Maintenance free due to ABB's reliable well-proven sensor technology
- Easy operation and set up via the graphic display with intuitive menu navigation
- Wide choice of process connections to suit multiple installations
- Designed to meet both CIP and SIP applications
- HART digital communication

Most served industry segments

- Water
- Food, Beverage and Pharmaceutical
- Pulp and Paper



364 pressure transmitters

The high reliability space saver concept

The 364 series represents the best solution for hazardous areas and highly demanding flow, level and pressure applications

- Long term stability of 0.15% for 10 years
- The solution for multiple installations in reduced spaces
- Smart drain/vent solution
- Boltless and gasket-free one piece body design
- On board LCD display with intuitive menu navigation
- Bi-directional flow and totalization capability
- NACE conformity to MR0103 and to MR0175 / ISO15156

Most served industry segments

- Petrochemical
- Oil and Gas



266 pressure transmitters

Performance with intelligence

266 delivers previously unattainable operational benefits

From the design to the software functionality, the 266 represents the latest evolutionary step in the wide ABB product portfolio.

Users can easily find the right application solution for their measurement needs and select among four different levels of accuracy: from 0.075% up to 0.025% so as to boost plant availability for demanding pressure measurement. Accuracy is no longer a constraint.

Pressure transmitter models are suitable for measurements up to 1050 bar (15000 psi), using Inconel™ 718 NACE compliant material for wetted parts.

2600T pressure transmitters can also be equipped with the ABB FieldKey wireless adapter, allowing remote maintenance for process and diagnostic monitoring. This small size adapter is easy to install: simply connected by 2 wires, it operates from the 4 to 20 mA loop without need of battery and can be used in hazardous areas as well.

Most served industry segments

- Oil and Gas
- Chemical
- Power
- Metal and Mining
- Water

TTG Technology: no more barriers between users and instruments

ABB is the first instrumentation company that is able to offer TTG Technology (Through The Glass). With this exclusive and innovative option, users can interact directly with the instrument, without removing the windowed front cover, saving cost and time, especially in hazardous areas.

Using ABB's proven four button HMI (Human Machine Interface) with intuitive menu navigation and Easy Set Up menu, configuration times can be greatly reduced.

Moreover, expensive hand-held configurators are no longer necessary since all the essential parameters can be set via the HMI with just one touch.

Easy to use... starting from the outside

The external non-intrusive zero and span push buttons allow users to rerange the transmitter safely in a few seconds. An additional external write protection is also provided.



Simplicity and compactness

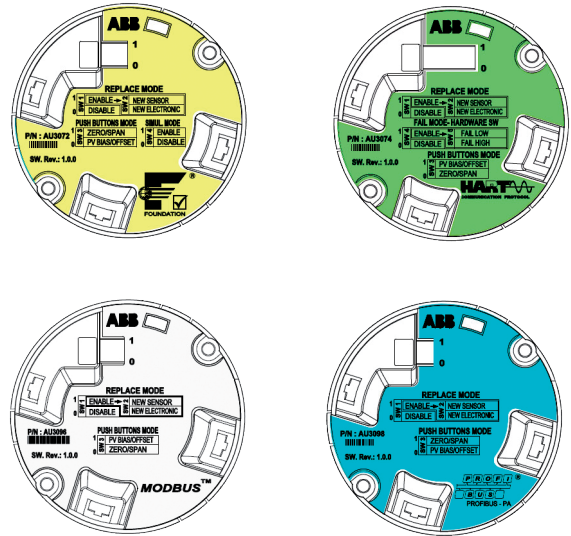
The key to the platform for pressure

The 266 series never lets you down:

plug-in communication board and terminal block

The new design enables in-field maintenance operations. Both terminal block and communication boards can be replaced in minutes without the need to reconfigure the transmitter.

Failures due to lightening, wrong earth wiring, etc. are not now an issue: 266 is protecting your plant productivity smartly.



PILD: Plugged Impulse Line Diagnostic as standard

Process diagnostics will continuously protect your 266 HART / 4-20 mA, PROFIBUS PA and FOUNDATION Fieldbus pressure transmitters from the risk of impulse line clogging or freezing.

Once a process anomaly is detected, the PILD function will generate a warning on the local LCD as well as via the communication protocol.

SIL2 and SIL3 TUV certified

The 266 series is certified by TUV NORD for use in safety instrumented systems as per the requirements of IEC61508. The transmitters meet the requirements for SIL2 applications in a single transmitter configuration (1oo1) and for SIL3 applications in a redundant configuration (1oo2).



Multivariable transmitters of 266 series

Ideal for mass flow application

Reliable solution for high pressure direct mass measurement

The unique combination of several sensor systems in a single device permits simultaneous measurement of differential pressure, absolute pressure and, via an external sensor, process temperature. Used for DP flow measurement it calculates the mass flow of gas, steam, and liquid with dynamic compensation. The measurement accuracy improves by 1 to 2%. Due to the available draft range this transmitter is tailored for use with the cheap and easy to install averaging Pitot tubes. In level applications the Multivariable transmitter calculates fluid density depending on temperature and pressure for dramatically increase of measurement accuracy even when using diaphragm seals.

Push down cost, increase safety

Less process penetrations means less potential leaking points and higher safety.

Boost the availability

And in the seldom case of fault the smart self-configuration function of the changeable electronic enables field repairs to be carried out so that the instrument is back in operation within minutes.

This short Mean Time To Repair (MTTR) combined with the high MTBF is the base for highest availability. The integrated "Plugged Impulse Line Detection" (PILD) function is another nice tool for an enhanced availability indicating a potential problem before it becomes a problem.

Shorten maintenance time

In case of changes in the process the "Easy Setup" feature, carried out with local indicator, Hand Held Terminal or Device Type Manager (DTM) allows to adapt the instrument within shortest possible time.

Most served industry segments

- Oil and Gas
- Chemical
- Power



Mass flow measurement

Mass flow of gas, steam, liquid and standard volume flow of gas in accordance with AGA3 or DIN EN ISO 5167.

Highest accuracy is achieved through:

- Dynamic flow correction with continuous calculation of Reynold's number and flow coefficient
- Correction of material-dependent thermal size changes
- Linearization of the primaries

Level measurement

- Improves the hydrostatic level measurement due to density correction
 - level in open tanks
 - level in pressurized tanks
 - boiler drum level
- volume of tanks with any shape
- tank content in mass units

2600T all-welded diaphragm seals

Performance and reliability over time

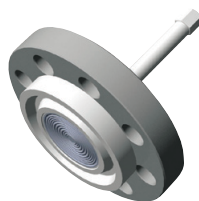
Flanged models

The ABB diaphragm seal portfolio includes rotating and fixed-flange models specifically designed to connect to flanged pipe fittings according to ASME, JIS and EN standards.



Ring-Joint construction

This type of diaphragm seal, flanged according to ASME standard, has been designed for high pressure /high temperature conditions.



Wafer / Pancake

Designed to connect to ASME and EN standard flanges the wafer diaphragm seal offers stable performance for a large number of applications. Joints and flushing rings complete the already wide offering. Wafer seals represent a cost-effective and reliable application solution.



Off-line seal

Available with threaded or ASME/ EN flanged process connection, the Off-line model matches small process connections. Recommended for clean process fluid measurements.



Sanitary models

Diaphragm seals developed according to the stringent 3-A requirements. Available with different process fittings (Triclamp, Cherry Burrell, Union Nut and Sanitary), this range demonstrates ABB's commitment to satisfy users needs by engineering solutions for the most demanding processes.



Union connection

A screw thread process connection that provides a flush diaphragm for gauge pressure applications. Originally designed by Taylor Instrument this connection is combined with the "all welded" technology to provide a high integrity solution for arduous applications.



Chemical Tee

Available only from ABB and designed for the chemical and Oil&Gas industries, the Chemical Tee remote seal is designed to connect to a Wedge Flow Element or to any process fitting with the appropriate dimensions.



Button

Button seals are designed for accurate high pressure measurement with a small diaphragm size. This type of connection is especially suitable for plastic and resins production processes, at high pressure and high temperature conditions.



In-line

In line seals are suitable for measuring the pressure of fluids in pipes. The pressure measuring diaphragm forms the pipe wall making this type of seal suitable for measuring the pressure of flowing fluids particularly those that are highly viscous or contain solids.



Pulp & Paper

Designed especially for preventing process media from plugging the process connection, Pulp & Paper diaphragm seals can be manufactured with anti-stick coatings which remove the need for manual cleaning and therefore reduce costs.



Urea service

This specialized remote seal is manufactured from materials which match the aggressively corrosive conditions when Urea is present in the process. The urea grade wetted materials ensure stable performances even in high temperature / high vacuum conditions. Huey test available as option.



Socket & Saddle

These diaphragm seals have been developed to meet the requirements of users who require a directly welded process connection. Suited for highly viscous process fluids measurements.



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