

Pressure transmitter 2600T Series

The solution that measures your demanding applications



Pick the Performance that meets your Application:

- **Accuracy:** 0.04%, 0.075%
with turndown ratios up to 100:1
- **Communications:** HART® / 4-20 mA, PROFIBUS PA, FOUNDATION Fieldbus or MODBUS
- **Measurements:** Gauge, Absolute, Differential, Level, Flow, Multi-Variable and Remote Seals
- **Applications:** Control Monitoring and Safety Applications (TÜV Approved for SIL2)

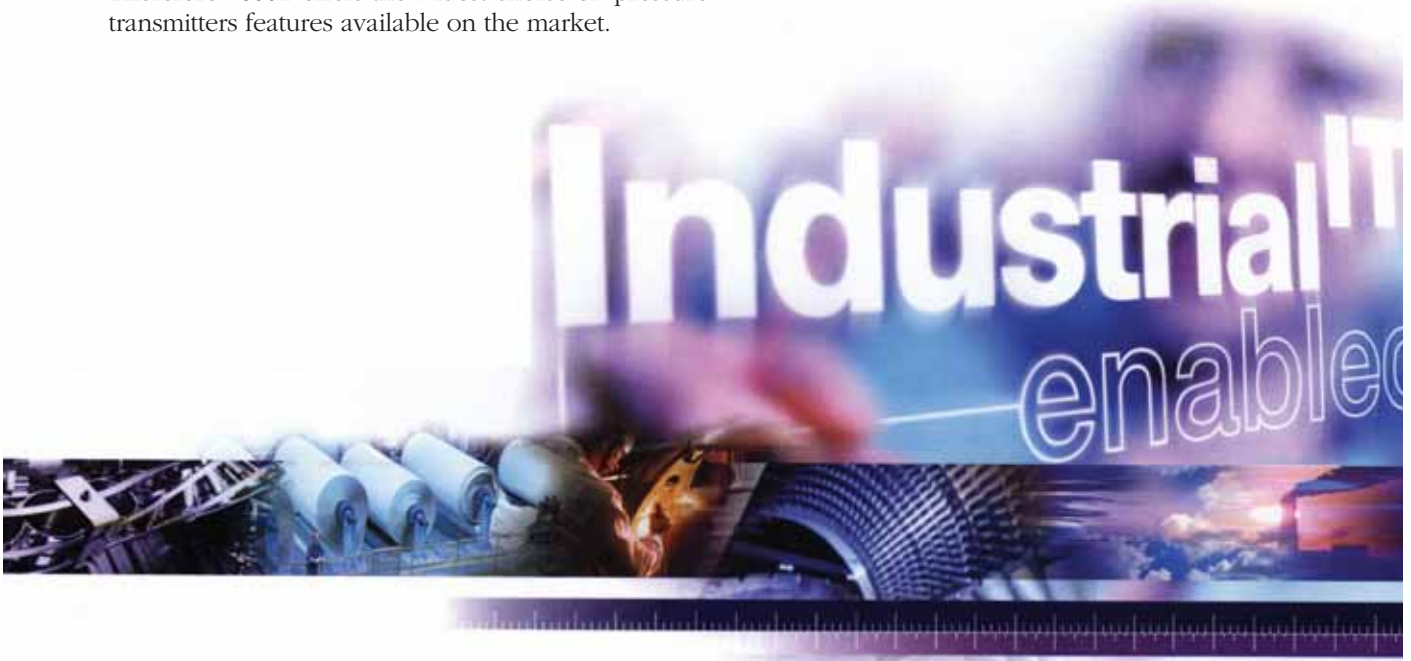
ABB Instrumentation



Our Experience Provides You the widest Choice of Solutions

The ABB 2600T unique pressure transmitters family is built upon the experience of leading names like Bailey, Hartmann & Braun, Fisher & Porter, Schoppe and Faeser, Kent and Taylor.

Therefore 2600T offers the widest choice of pressure transmitters features available on the market.



The Performances You Need

Choose the **performances** mix that fits your needs for accuracy, wetted materials, maximum working pressure, fill fluids, remote seals and accessories.

The Communication You Need

Choose the communication standard that fits your need among **HART / 4-20 mA, PROFIBUS PA, FOUNDATION Fieldbus**, and **MODBUS**.

The replacement of the electronic module for a different communication strategy is very easy, taking only few minutes.

The Solution Software You Need

Choose our **2600T Toolbox** solution software tools to help solve your difficult flow, level, interface or remote seal applications.

This tool will help you build the optimum 2600T model number based on your process conditions or convert an installed model number to the 2600T family.

The Application Solution You Need

Choose our **Multivariable** transmitter for your air, gas or steam mass flow applications or your multiple input needs. This transmitter has a variety of primary flow elements pre-configured.

Choose our **SIL 2 Certified Safety** transmitter designed with the necessary redundancy and self-diagnostics for those critical safety applications.

Choose the **safety approval** you need: intrinsically safe, explosion proof, FM factory sealed.

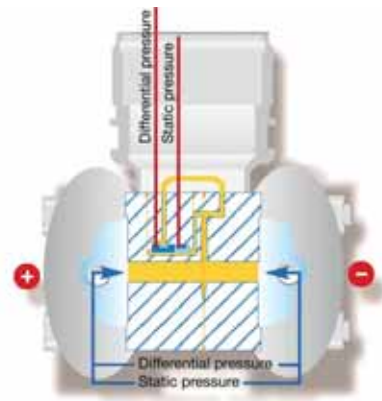
World Wide Support and Know-How You Need

Our international network of ABB companies, Authorized Representatives, Distributors and Agents, present in **more than 100 countries** are willing to provide you with on-site field service, commissioning or application help.

Multisensor and Multivariable platform

This sensor measures both differential and absolute pressure. Additionally an external process temperature sensor (Pt 100) can be added allowing :

- compensated flow and level calculations
- savings. By having three measured values on a single transmitter coupled with the fieldbus technology
- increased process measurement accuracy. By evaluating and compensating absolute pressure and sensor temperature effects.

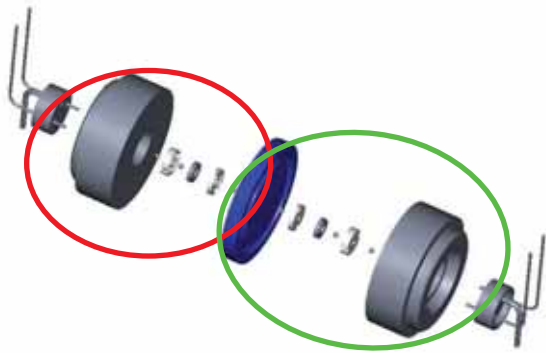


Safety platform

With a **natively redundant** inductive sensing system this HART configurable pressure transmitter can be used in a SIL environment in compliance with ISA S84.01, IEC 61508 standard and the European Pressure Equipment Directive (PED).

All the necessary redundancy and diagnostics are in place to obtain an Hardware Fault Tolerance of 1 (**HFT = 1**) and a Safe Failure Fraction of 96%.

- the redundant input signals are compared in the microcontroller;
- the output section is checked by reading it back into the microcontroller;
- full internal diagnostic (watchdog timers, checksum and a complete set of software checks performed every 30 msec);
- in case of a fault the analog output is driven to a safe condition in accordance to the NAMUR standard.



2600T Toolbox Software Solution

- This tool will help you to build the optimum 2600T model number based on your process conditions. The 2600T Toolbox will interact with you to select the appropriate wetted parts, transmitter ranges, accuracy requirements, and options to provide the right product to meet your application.
- If you are replacing an existing installed transmitter with a 2600T, do not worry because the 2600T Toolbox will help you convert instrument to the optimum 2600T model number.
- The 2600T Toolbox also includes our TankMaster tool. TankMaster will automatically calculate the polynomial coefficients that can be loaded into a 2600T transmitter to calculate the filled volume of a curved tank (even with a complex shape).



Tailored for Your application

Multivariable



- Air, gas or steam flow measurement with absolute pressure and temperature compensation.
- PROFIBUS PA, FOUNDATION Fieldbus and MODBUS communications. The latter allows natural gas flow measurement via Remote Transmitting Unit (RTU).
- Real draft range (1 kPa, 10 mbar, 4 inH₂O).
- High static (41 MPa, 410 bar, 6000 psi) working pressure option for power plants, pipelines or oil and gas production.

Differential Pressure



- High static (41 MPa, 410 bar, 6000 psi) working pressure option for power plants, pipelines or oil and gas production.
- High vacuum (down to 0.067 kPa abs 0.01 psia) for vacuum distillation column and evaporator.
- Fast response time version for compressors and turbines.

Pressure



- Low-range (6 kPa, 60 mbar, 24 inH₂O) for gauge or absolute pressure measuring applications.
- Full metal sensor with high overpressures (90 MPa, 900 bar, 13000 psi) protection.

Level / Direct Mount Seals



- Open or closed tank application.
- Flush and extended diaphragms.
- Sanitary and aseptic process connections and fill fluids for Food and Pharmaceuticals, in compliance with 3-A Sanitary Standards.
- Pulp & Paper process connections.
- Volume measurement capabilities (Tank strapping).

Remote Seals



- Choice of all-welded construction for vacuum applications or gasketed construction.
- Non silicone based fill fluid specific for paints applications (car painting and electro-coating).
- Wide selection of diaphragm materials including antistick and anticorrosion.
- Sanitary and aseptic process connections and fill fluids for Food and Pharmaceuticals, in compliance with 3-A Sanitary Standards.
- Level interface and density.

All the flexibility you need

Housing

- Standard (Barrel)
- DIN
- Low copper or copper-free
- Stainless steel

Electronic

- HART / 4 to 20 mA
- PROFIBUS
- FOUNDATION Fieldbus
- MODBUS (Multivariable)

Display

- Analog
- Digital
- CoMeter
- Integral

Sensor

- Differential Pressure
- Gauge
- Absolute
- Level
- Multivariable

Fill Fluids

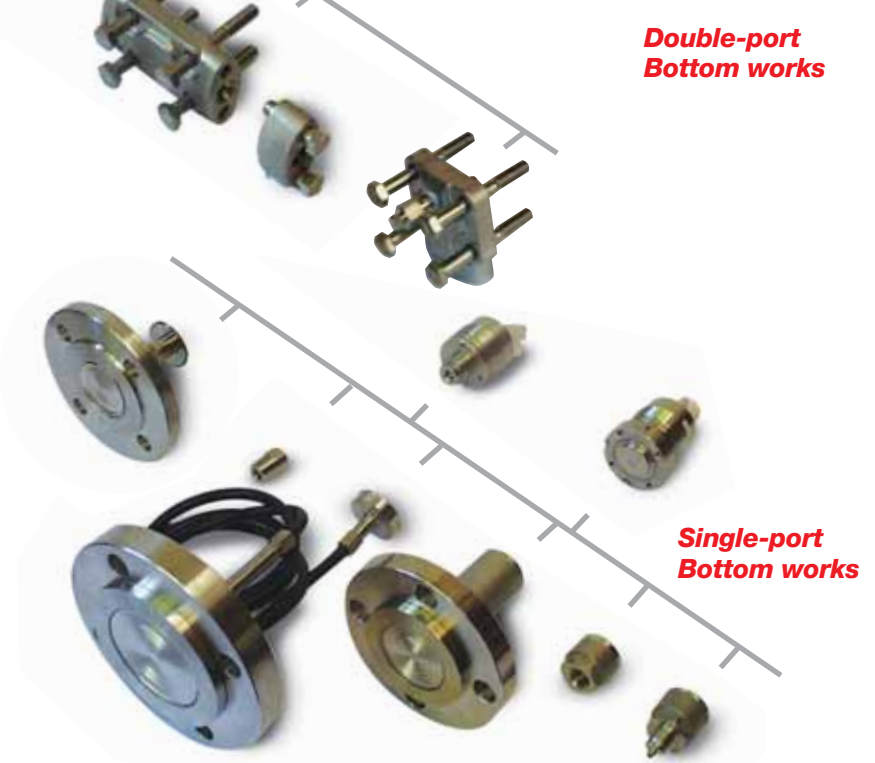
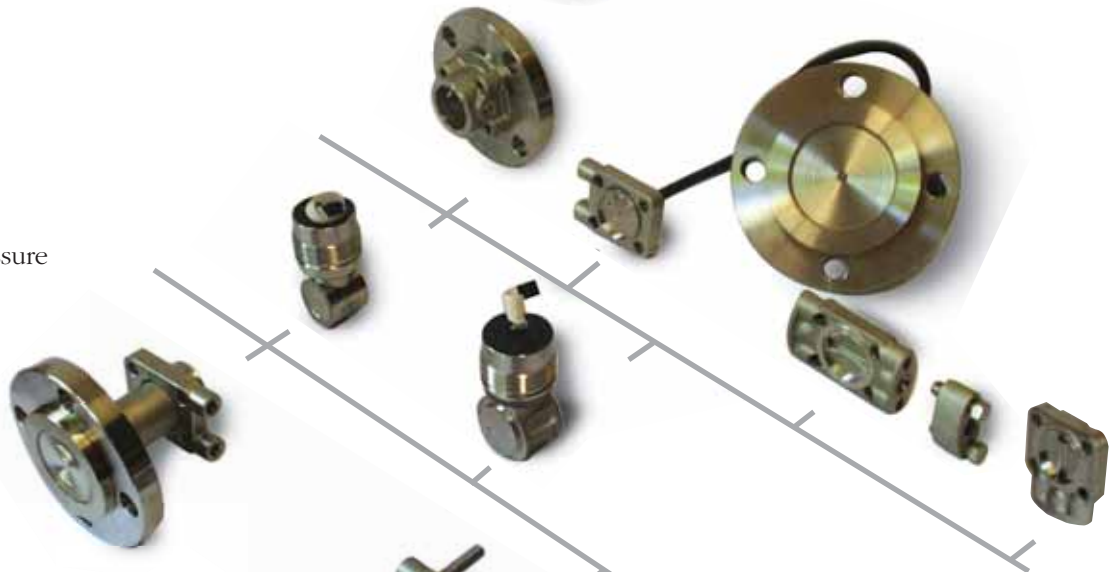
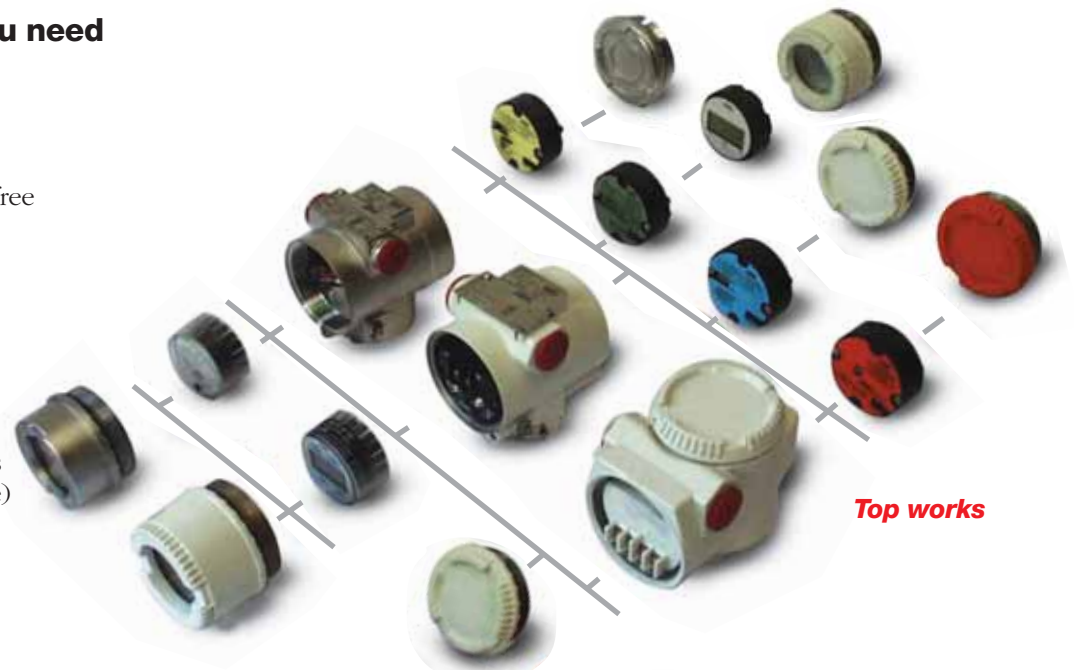
- Silicone oil
- Inert fluid
- Pharma/food grade (FDA approved)
- High temperature

Materials (process wetted)

- Stainless Steel (AISI ss)
- Monel
- Hastelloy
- Tantalum
- Gold Plated
- Antistick and anticorrosion
- Kynar (PVDF insert in AISI ss flange)
- Diaflex (AISI with antiabrasion)
- Superduplex ss

Process Connections

- Traditional
- Vertical flanges
- Integral seal (direct mount)
- Remote seals



Remote seals

Remote seals are used to isolate the 2600T transmitter from process conditions that will either shorten the transmitter life or dramatically affect its performance. Conditions such as:

- temperatures down to -105 °C, -157 °F or up to 400°C, 752 °F
- measuring highly corrosive fluids or
- fluids that are highly viscous or have a tendency to crystallize or solidify.

For these process application requirements ABB has available:

- fill fluids dedicated for high temperature applications
- specific diaphragm materials to withstand these high corrosion environments. ABB also has seals with anti-stick coating for those highly viscous sticky applications
- a complete range of process connections like chemical tees, wafer, flange mounting (flush or extended), threaded union, welded bushing, Pulp & Paper connections, easily cleanable sanitary and aseptic connections.

ABB is the leader in the all welded technology where the Remote Seal System are welded at every junction. This prevents air and contaminants from entering the seal resulting in improve measurement accuracy and reliability over traditional.



Accessories

- manifolds
- flow primary elements
 - integral orifice
 - wedge
- flanges and pipe unions
- vent/drain valves
- integral surge protection



Additional ABB Services

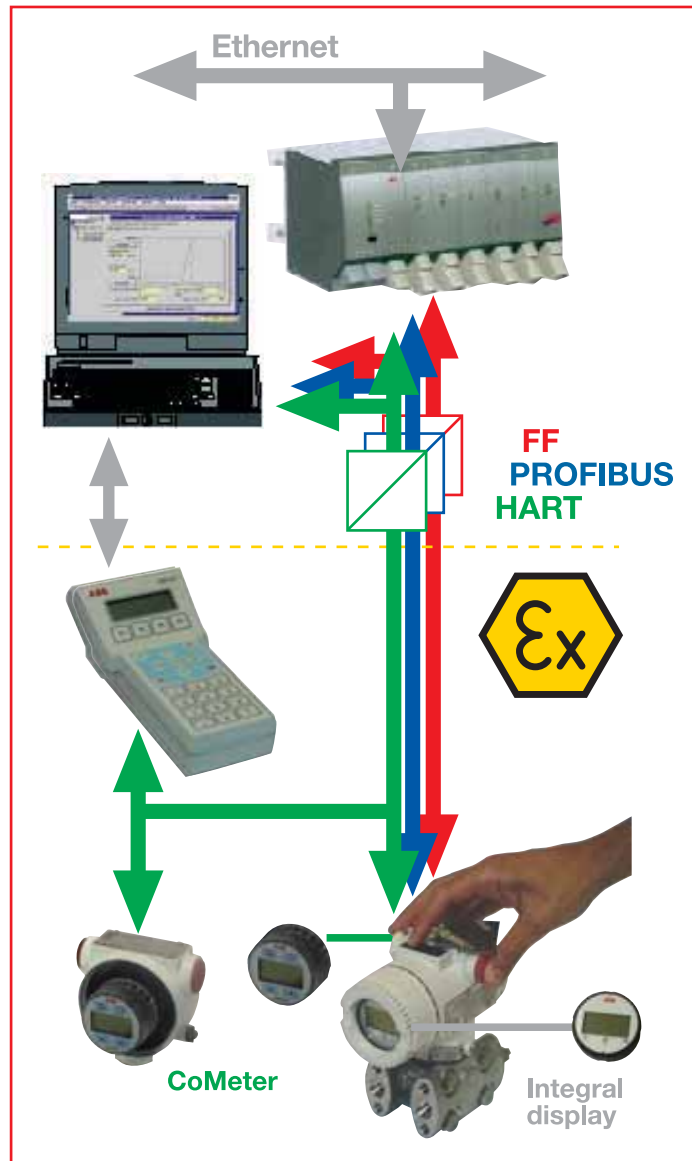
- manifold and primary elements assembly
- special cleaning procedures
- calibration certificates
- materials certificates
- complete instrument configuration according to Your specifications



Configuration

ABB offers a variety of 2600T transmitter configuration options:

- **Software.** ABB's Smart Vision or third parties instrument engineering software for data base configuration and/or plant maintenance.
- **Hand Held HART communicators.** ABB's 691HT and Mobility DHH800 or any third party hand-held Communicator with ABB's 2600T DD.
- **CoMeter™.** A local 2600T process indicator and configuration tool.
 - Local HART configuration
 - Programmable output meter in engineering units.
- **Full local configuration with closed covers.** A cost effective solution achieved by means of the integral display.
- **Snap-Cal™.** Fully adjustable local damping and zero and span adjustment.
- **GeminiConfig™.** The original configuration is maintained allowing the field replacement of the electronics as plug-and-play.
- **Security.** Several security facilities, including password protection, prevent risks of unwanted configuration changes.



Self-Diagnostic

The transmitter performs continuous self-checks and monitors the sensor temperature, static pressure etc. If a problem occurs, alarm status are indicated on the analog output in compliance with NAMUR standard and on the optional integral LCD or CoMeter display and as fieldbus status flags.

	Push Buttons	Integral display	CoMeter	Hand-held Terminal	Smart Vision (*)
Zero / Span (by Snap Cal)	✓	✓	✓		
Calibration		✓	✓	✓	✓
Configuration		✓	✓	✓	✓
Diagnostics		✓	✓	✓	✓
Configuration upload/download				✓	✓
Configuration documentation					✓

(*) Either HART, PROFIBUS or FF communication standards are supported



ABB is a leader in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact. The ABB Group of companies operates in around 100 countries and employs about 110,000 people.

www.abb.com/instrumentation

The Company's policy is one of continuous product improvement and the right is reserved to modify the information contained herein without notice.

Printed in Italy (03.2008)
© ABB 2008



Germany

ABB Automation
Products GmbH
Borsigstr. 2
63755 Alzenau
Tel: +49 551 905 534
Fax: +49 551 905 555

UK

ABB Limited
Oldends Lane
Stonehouse
Gloucestershire GL10 3TA
Tel: +44 1453 826 661
Fax: +44 1453 829 671

Italy

ABB SACE
a division of ABB S.p.A.
Via Statale 113
22016 Lenno (CO)
Tel: +39 0344 58111
Fax: +39 0344 56278

USA

ABB Inc
Automation Technology
Products
125 E. County Line Rd
Warminster PA 18974-4995
Tel: +1 215 674 6000
Fax: +1 215 674 7183

China

ABB (China) Ltd.
35th floor, Raffles City
(Office Tower)
268 Xizang Zhong Lu
Shanghai, 200001
Tel: +86 (0) 21 6122 8888
Fax: +86 (0) 21 6122 8892