

Pressure transmitters 364

The high reliability space saver transmitter concept



- Long term stability of 0,15% for 10 years
- The solution for multiple installation in reduced spaces
- All stainless steel construction with 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

ABB Instrumentation



Reliability at a glance

Stability, Robustness, Compactness, Simplicity, Safety



From the simplest concept to the smartest measurement solution, 364 is evolving the pressure transmitter concept by simplification and common sense design. 364 represents the best solution for hazardous areas and high demanding flow, level and pressure applications. Simplicity and compactness are the key to the new ABB platform for pressure measurements.

- 4...20 mA output with HART communication
- Standard local Zero & Span adjustments
- Standard surge protector
- Standard “all stainless steel” construction
- Standard one-piece boltless process chambers
- Standard drain/vent valves
- Standard NACE MR0175 wetted material
- Standard Hastelloy C276 diaphragms
- In field replaceable auto-configurable electronics modules



■ Plant availability thru a reliable pressure measurement

A new design based on the consolidated technology that delivered more than 1.000.000 transmitters worldwide.

0.15% stability over a 10 year period is a choice for maintenance free operation at your plant. The new boltless design combined with worldwide standard connections dramatically reduces the potential leaking points.

■ Unique ease of operation – innovative plug & play graphic display

The user friendly display allows simple and intuitive transmitter operation.

The “Easy Setup” drives the user to an easy commissioning without the need of any hand held terminal.

■ Software functionality for unsurpassed application fit

A permanent and a batch totalizer are implemented for local integration in volume flow measurements.

A password protects undesired resets. Completely configurable square root linearizations with low flow cut-off are offering the best fit for flow measurement associated with any kind of primary element.



Saving installation space

Enhancing plant performances thru high stability

- **The smart solution for OEM's**
Reduced installation cost and space
for differential measurements

Half the space of a conventional transmitter requested for installation.

- **Explosion proof protected**

Combined hazardous area electrical certification, user selectable on the same device, keeps inventory low.

- **The best choice for Oil & Gas**

Standard stainless steel explosion proof housing in combination with NACE MR0175 wetted parts is the convenient solution for offshore plants and aggressive environment.

- **Accelerated operational drift tests have demonstrated the exceptional stability of the 364**

- **Total temperature effect for the whole range (-40°C...+85°C) better than 0.1% of URL**



- **Cost-effective flexibility**

The user has a comprehensive choice of sensors, optimizing in-use total performance and stability.

Configuration functions are flexible, provided locally via local keypad or via hand held terminal or PC configuration platform.

A standard stainless steel housing and surge protector add an additional layer of protection from aggressive environments and power supply surges.

With an MTBF that exceeds 200 years, 364 series can boost plant efficiency while lowering your long-term inventory costs.

- **Easy-to-fit on the plant**

Connecting the 364 is made easy by its programmable pressure polarity feature; this enables users to install the transmitter and indicator in the most appropriate position and then define the high and low pressure connections afterwards.

- **Naval Approval**

364 pressure transmitters enable Customers to pursue new opportunities in the marine market thanks to BV (Bureau Veritas) and DNV (Det Norske Veritas) naval certificates.

■ Pressure transmitters with diaphragm seal

364 family also includes transmitters with direct mount and/or remote diaphragm seal designed to meet the most critical process application requirements and already proven to deliver best in class reliability from ABB 2600T pressure line. The innovative design of the 364 transmitter with remote diaphragm seal opens new frontiers to space saving installations and capillaries protection.

Operative accuracy is 0.06% across the operating span, which varies from 2mbar to 160bar.

The unique combination of compact size, with optional clear view intelligent display, low weight and corrosion resistant stainless steel housing are combined with a comprehensive range of process wetted materials and process connections



■ S364 diaphragm seals

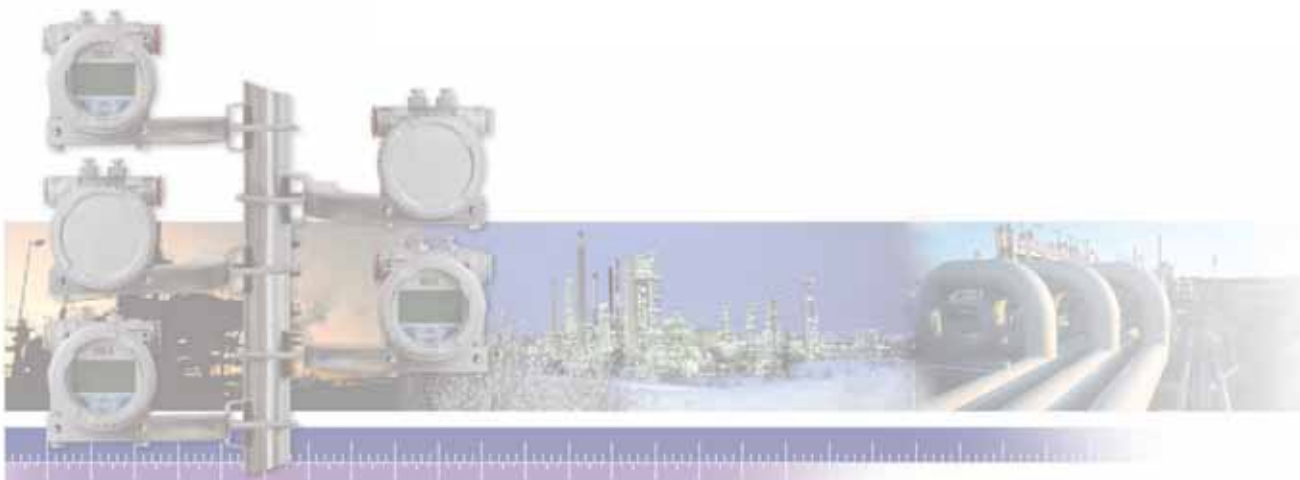
S364 diaphragm seals line is manufactured by ABB and offers one of the widest choices of process connection and wetted materials on the market today.

ABB give customers the opportunity of choosing among different special materials like tantalum, Superduplex, Inconel 625, Monel™, Hastelloy C276™ and unique to ABB Hastelloy C2000™; diaphragm seal portfolio includes different coatings such as anti-abrasion Diaflex, gold plated, anti-stick and anti-corrosion, available right out of the catalogue.

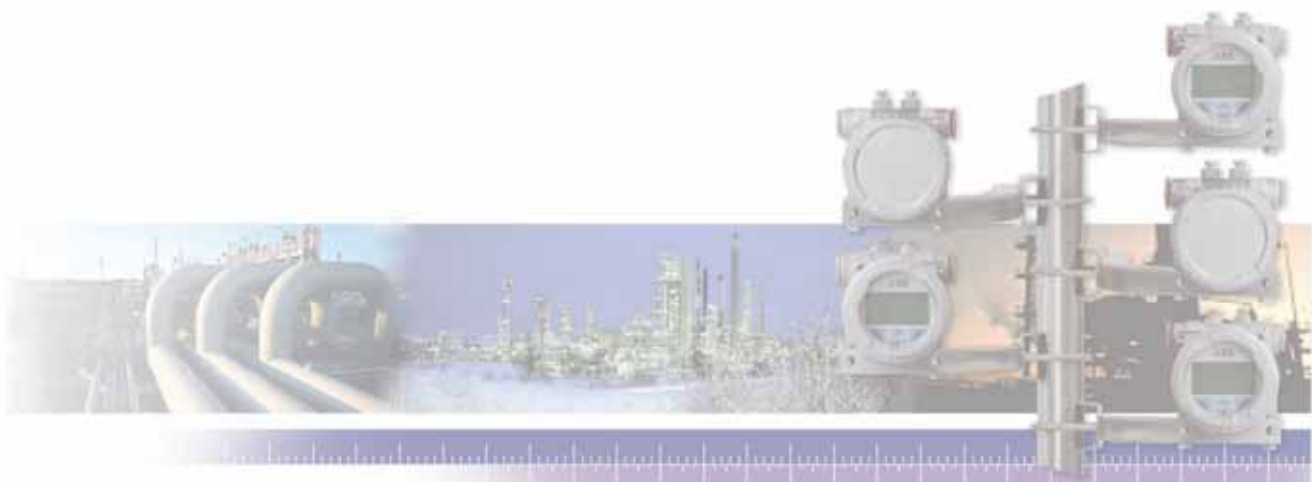
The innovative wetted materials enhance existing measurement life and implement new demanding application with trust. ABB offers special designed remote seals for individual process solutions adding flexibility for customers' installations.


ABB diaphragm seals are manufactured on the experience of Taylor and in case of a diaphragm failure they can be repaired at one of the ABB pressure service center worldwide.

ABB have decades of experience in the manufacture of remote seal systems and the "All-welded" and helium leak tested construction provides a no leak solution that is particularly applicable for safety installations.



Type	Measurement	Measuring ranges	Process connections	Construction	Electrical connection
364DS	Differential Pressure	0.05 to 16000 kPa 0.5 mbar to 160 bar 0.2 inH ₂ O to 2320 psi	1/4 - 18 NPT female direct 1/2 - 14 NPT female through adapter on process axis	All stainless steel body Hastelloy process diaphragms Optional indicator	1/2 - 14 NPT M20 x 1.5 (CM20)
364PS	Gauge Pressure high overload				
364GS	Gauge Pressure	12.5 to 60000 kPa 125 mbar to 600 bar 50 inH ₂ O to 8700 psi	1/2 - 14 NPT female 1/2 - 14 NPT male DIN EN 837-1 G 1/2 B all direct on process axis		
364AS	Absolute Pressure	12.5 to 10000 kPa 125 mbar to 100 bar 93.8 mmHg to 1450 psia			
364DR	Differential Pressure and Level	0.2 to 16000 kPa 2 mbar to 160 bar 0.8 inH ₂ O to 2320 psi	Two remote seals or one remote seal and one threaded connection (1/4 - 18 NPT female direct or 1/2 - 14 NPT female through adapter on process axis; 1/4 - 18 NPT female or 1/2 - 14 NPT female through adapter side entry)		
364PR	Gauge Pressure and Level	0.54 to 16000 kPa 5.4 mbar to 160 bar 2.14 inH ₂ O to 2320 psi	One remote seal and reference side vented with filter to atmosphere		
364DD	Differential or Gauge Pressure and Level		One direct mount seal and one remote seal or one threaded connection (1/4 - 18 NPT female or 1/2 - 14 NPT female through adapter side entry)		



S364 Diaphragm Seal				
Seal Type	S364A ASME Flanged Remote Seal	S364E EN Flanged Remote Seal	S364R Flanged Remote Seal with Ring Joint	S364W Wafer / Pancake Style Remote Seal
Markets and Industries	Chemical, Oil and Gas, Mining, Pulp and Paper, General Industry, Power	Chemical, Oil and Gas, Mining, Pulp and Paper, General Industry, Power	Chemical, Oil and Gas, Petrochemical	Chemical, Oil and Gas, Mining, Pulp and Paper, General Industry, Power
Flange Material	AISI 316 Carbon Steel	AISI 316 Carbon Steel	AISI 316 Carbon Steel	AISI 316
Flange Rating	ASME CL 150 ASME CL 300 ASME CL 600 ASME CL 900 ASME CL 1500	EN PN 16 EN PN 40 EN PN 63 EN PN 100	ASME CL 150 ASME CL 300 ASME CL 600 ASME CL 900 ASME CL 1500 ASME CL 2500	16 MPa (can be limited by backup flange rating)
Flange Size	2 in 3 in 4 in	DN 50 DN 80 DN 100	1 - 1/2 in 2 in 3 in	1 - 1/2 in 2 in 3 in DN 40 DN 50 DN 80
Isolating Diaphragm Material	AISI 316 L ss Hastelloy C276 Hastelloy C2000 Inconel 625 Tantalum AISI gold plated AISI anti-stick Hastelloy with anti-stick AISI with anti-corrosion Diaflex Superduplex ss	AISI 316 L ss Hastelloy C276 Hastelloy C2000 Inconel 625 Tantalum AISI gold plated AISI anti-stick Hastelloy with anti-stick AISI with anti-corrosion Diaflex Superduplex ss	AISI 316L ss Hastelloy C276™ Inconel 625	AISI 316 L ss Hastelloy C276 Hastelloy C2000 Inconel 625 Tantalum AISI gold plated AISI anti-stick Hastelloy with anti-stick AISI with anti-corrosion Diaflex Superduplex ss
Fill Fluid	Silicone oil Inert Galden Inert Halocarbon High temperature oil Low temperature oil Mineral oil Vegetable oil Glycerin-water	Silicone oil Inert Galden Inert Halocarbon High temperature oil Low temperature oil Mineral oil Vegetable oil Glycerin-water	Silicone oil Inert Galden Inert Halocarbon High temperature oil Low temperature oil Mineral oil Vegetable oil Glycerin-water	Silicone oil Inert Galden Inert Halocarbon High temperature oil Low temperature oil Mineral oil Vegetable oil Glycerin-water
Flushing Ring Size	1 hole 1/2 in NPT 2 holes 1/2 in NPT 1 hole 1/4 in NPT 2 holes 1/4 in NPT	1 hole 1/2 in NPT 2 holes 1/2 in NPT 1 hole 1/4 in NPT 2 holes 1/4 in NPT		1 hole 1/2 in NPT 2 holes 1/2 in NPT 1 hole 1/4 in NPT 2 holes 1/4 in NPT
Flushing Ring Material	AISI 316 L ss Hastelloy C276	AISI 316 L ss Hastelloy C276		AISI 316 L ss Hastelloy C276




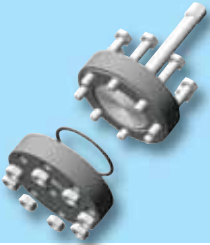



				
S364M Off-line flanged remote seal	S364T Off-line threaded remote seal	S364S Sanitary and food remote seal	S364U Union Connection remote seal	S364C Chemical Tee remote seal
Chemical, Oil and Gas, Petrochemical, Power	Chemical, Oil and Gas, Petrochemical, Power	Food and Beverage, Sanitary, Chemical	Chemical, Pulp and Paper	Chemical, Oil and Gas (Flow with Wedges)
AISI 316 L ss Hastelloy C276	AISI 316 L ss Hastelloy C276	AISI 304 L ss AISI 316 L ss	AISI 316 ss	AISI 316L ss
ASME CL 150 ASME CL 300 EN PN 16/40 bar	16 MPa	1.7 to 3.8 MPa for Triclamp 2.5 MPa for Union Nut 1.9 MPa for Cherry Burrel and Sanitary (can be limited by clamp option)	103 bar (limited to 20 bar by Chemical Tee flange)	20 bar
1/2 in, 1 in or 1 - 1/2 in DN 25 or DN 40 Off-line flanged connection	1/4 in NPT-F 1/2 in NPT-F 3/4 in NPT-F 1 in NPT-F 1 - 1/2 in NPT-F Off-line threaded connection	Triclamp and Cherry Burrel: 2in, 3in or 4in Union Nut: F50 or F80 to DIN 11851 Sanitary: 4in flush or 4in extended diaphragm	1 - 1/2 in Full thread 16N2	Proprietary – 3 in
AISI 316L ss Hastelloy C276 Hastelloy C2000 Inconel 625 Tantalum AISI gold plated	AISI 316L ss Hastelloy C276 Hastelloy C2000 Inconel 625 Tantalum AISI gold plated	AISI 316L ss	AISI 316L ss Hastelloy C276	AISI 316L ss Hastelloy C276 AISI anti-stick Hastelloy with anti-stick AISI with anti-corrosion
Silicone oil Inert Galden Inert Halocarbon High temperature oil Low temperature oil Mineral oil Vegetable oil Glycerin-water	Silicone oil Inert Galden Inert Halocarbon High temperature oil Low temperature oil Mineral oil Vegetable oil Glycerin-water	Silicone oil Mineral oil Vegetable oil Glycerin-water	Silicone oil Inert Galden Inert Halocarbon High temperature oil Low temperature oil Mineral oil Vegetable oil Glycerin-water	Silicone oil Inert Galden Inert Halocarbon High temperature oil Low temperature oil Mineral oil Vegetable oil Glycerin-water

ABB offers a wide range of special materials not listed in the above chart. Thanks to long-standing experience and continuous products improvement, ABB gives Customers the opportunity of application specific designs.

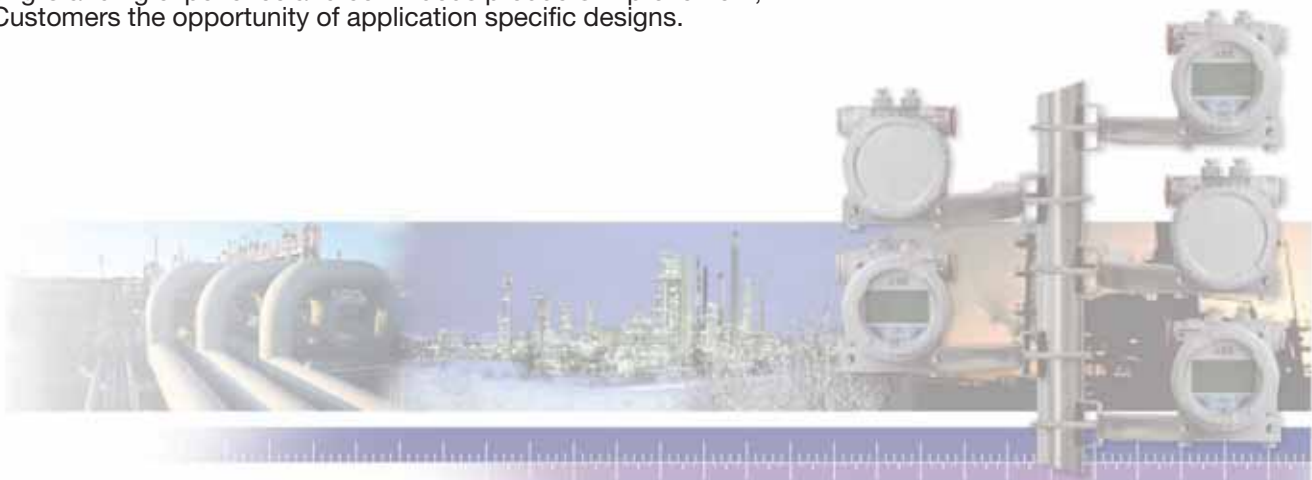


ABB is a leader in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact. The ABB Group of companies operates in around 100 countries and employs about 110,000 people.

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.

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