
PGS100, PAS100 pressure transmitters

The essential pressure measurement solution



Measurement made easy

Engineered solutions for standard applications

The new ABB PxS100 is the latest addition to the ABB pressure portfolio, born to fit all applications where mainly essential specifications are required.

The PxS100 is a straightforward and robust device designed for rapid delivery and easy installation whenever and wherever you need it.

Providing all the essential features you need in a pressure transmitter, the PxS100 is manufactured leveraging the ABB sensor technology and automated manufacturing processes used for our higher-specification pressure transmitters.

With a rugged design offering high resistance in even the most demanding environments, the PxS100 is a competitive solution for most applications, including ones in hazardous areas.

The pressure transmitter you need, when you need it

Many of today's pressure transmitters on the market are highly capable devices found in a wide variety of demanding applications and industries. While offering high performance, these high specification devices often come at a premium price and can take weeks to customize and deliver.

But what if your application does not require the highest specification levels?

The new ABB PxS100 fits the bill. It provides all the features and functions you need and none of the ones you don't. Flexible and adaptable, it gives you the device you need in a fraction of the time it takes to specify, adapt and deliver a complex unit.

In perfect alignment with the specifications requested by its reference market, the PxS100 provides base accuracy of 0.25% of span, with the option of improving this to 0.1%.

Designed to meet the needs of industries including Water and Wastewater, Pulp and Paper, Power Generation Ancillary Processes, Metals & Mining, Cement and some Food & Beverage applications, the PxS100 features unique abrasive resistant technology that protects the metallic diaphragm from wear, extending the device's working life.

Using ABB's range of adaptable connectors and flanges, the PxS100 series can be rapidly configured to accommodate hundreds of mounting, spans and certification-equivalent options.



ABB PGS100, PAS100 pressure transmitters

The easy solution to your pressure measurement needs

The ABB PxS100 is the flexible, adaptable pressure transmitter you need for a wide range of uses. Easy to install and use, it is designed for customer needs, making it robust and providing a long service life.

High visibility HMI with backlight option

The new easy-to-use HMI (Human Machine Interface) can be ordered with a backlight for environments with poor lighting. A two-button touch display avoids the need to remove the transmitter cover, enabling the PxS100 to be directly configured even in hazardous area locations. For added convenience, the HMI module can also be fully rotated to offer improved visibility from any angle.



Flexible process connectors

The PxS100 features a double-threaded process connection which can be used with a range of adapter accessories to configure the pressure transmitter to meet a user's exact installation requirements, saving time and cost within the manufacturing process. A range of threaded flanges is also available in combination with the front-bonded connection, transforming the new ABB product into a direct mount remote seal equivalent model. With hundreds of different configurations, the PxS100 model always meets your needs.



Compact stainless-steel housing

The PxS100's compact and robust stainless-steel 316L housing has been designed to offer IP66, IP67, IP68 and IP69K protection, enabling it to function in conditions of high humidity or dust concentration in the air. The ingress protection levels also make it suitable for clean-in-place applications common in the food industry.



Configuration and interoperability

PxS100 can be ordered with 4..20 mA analog protocol or HART digital protocol, which both allow local configuration. In addition the PxS100 is fully compatible with asset management software such as ABB's FIM (Field Information Manager). By allowing devices to be remotely monitored from the control room, there is no need to physically visit the device, which could be located in inaccessible or hazardous areas. The availability of drivers like DD, DTM and FIM further expands the configurability of the PxS100 from the local unit up to handheld HART devices and PCs.

ABB unique technologies resist abrasion and hydrogen permeation

ABB's unique titanium-based Diaflex nanocoating technology protects the diaphragm from abrasion, prolonging its operational life. Only a few micrometers thick, the Diaflex coating does not interfere with the transmitter's measurement performance. The PxS100 series also features ABB's H-shield, providing extreme protection against monatomic hydrogen, which can lead to inaccurate diaphragm deflections that can produce measurement errors.



Easy operation

Like the 266 pressure transmitter family, PxS100 can be equipped with an Easy Set Up menu option. Following the same intuitive logic as an everyday smartphone, the menu enables users to set up the main device parameters quickly and easily, reducing the time needed to get up and running.



Wide choice of pressure ranges

The PxS100 is available in both Gauge and Absolute sensor variants and offers five different measurement ranges, covering applications from 40 mbar (16in H₂O) up to 100 bar (1450 psi) thanks to its 10:1 turndown capability and full rangeability.



Fast delivery

Providing essential options, the PxS100 is quick and easy to specify. Available either directly from ABB or from ABB Channel Partners, each PxS100 device can be rapidly customized, cutting lead times to just a few days.



Robust front-bonded connection

Typically used in highly-viscous processes and pulp and paper industry applications to avoid clogging to the diaphragm, the front-bonded connection of the PxS100 is made of resistant 316L stainless steel with the possibility of selecting a variety of materials according to process needs. Beside 316L stainless steel and Hastelloy C276, front bonded diaphragm is also available with H-Shield and Diaflex.

Taking you towards digitalization

The PxS100 series has been designed to meet the trend for increasing digitalization and incorporates features that make it easy to obtain vital information online. These include QR codes that detail operational messages in detail and enable fast access to useful supporting information on the device and its status.

A 'static' QR code is printed on the device's name plate. When scanned using a smartphone QR app, this code gives direct access to the PxS100 webpage, where the user can retrieve specifications, manuals and instructions, avoiding the need to carry or consult paper manuals and documentation.

'Dynamic' QR codes come into play when an error or faulty condition is detected by the pressure transmitter such as the process being out of limits. If this happens, a QR code will be displayed on the screen. Scanning this QR code will take the user to a diagnostic page, where they can receive suggestions for correcting it, as well as details of possible root causes. This QR code option, called Digital Access Diagnostic, can help to reduce the time needed to identify issues and react to operational occurrences.



Meeting the needs of industry

Practical, simple, robust and easy to use, the ABB PxS100 series is suitable for everyday pressure measurement applications within a wide range of industries.



Water and wastewater

Whilst the water and wastewater industry is a standard market for pressure transmitters, some applications can be very challenging, especially those involving sewage or residual waters. When processes generate hydrogen or involve abrasive particles suspended in water, the PxS100's Diaflex abrasion resistance and H-shield coating which resists hydrogen permeation, makes it the ideal solution.

Pulp and paper

The nature of pulp and paper industry applications requires a robust device capable of dealing with abrasive media such as recycled paper pulp as well other non-ideal elements such as corrosive liquids, vibration, dark and dirty environments and high humidity and condensation. Offering a robust enclosure, a high IP protection and a backlight display for easy readability of data and a condensation free sensor, the PxS100 has all the features for this device-stressing environment.

OEMs and machine builders

Demanding competitiveness on standard specification sets, OEM customers look for rapid delivery and product versatility. Providing the right level of accuracy combined with easy installation and short lead times, the PxS100 is the ideal pressure transmitter for a simple pressure measurement device as a standard fit for OEM solutions.



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