



Performance Under Pressure

SITRANS P Portfolio of Pressure Transmitters

Process Instrumentation

The increasing complex tasks of the process industry demand measuring precision, ruggedness and maximum ease of use. The SITRANS family answers these needs with a high-precision product portfolio to cover any conceivable measurement requirement. With a comprehensive range of device classes, from the basic model, the P310, through the Advanced SITRANS P410 to the proven Premium SITRANS P500, the pressure transmitter line has been engineered to deliver results.

All models in the transmitter series are simple to operate using just three push buttons offering non-interactive zero and span adjustments, and offer long term stability of 0.125 percent over a period of five years, allowing calibration cycles to be extended and maintenance work reduced with all the associated cost savings. They are also certified to SIL 2/3 and offers commonly required area certificates and approvals.

Due to the common technological base, the device series is also suitable for SIL 2 and SIL 2/3 applications according to IEC 61508/61511 and can be ordered with a corresponding declaration of conformity.

Comprehensive safety features include warnings and alarms signaling critical measured values, which can be used for plant monitoring. Service or calibration intervals can be displayed through self-diagnostics based on a maintenance scheduler.

SITRANS P310

The P310 is cost-effective and rugged with extraordinary ease-of-use and a measuring accuracy of 0.75%, making it ideal for applications in fields such as water supply and disposal. SITRANS P310 – just like the SITRANS P410 – is available as a gauge pressure and differential pressure version.

SITRANS P DS III

The most versatile member of the SITRANS P product family is the P DS III. The digital pressure transmitter offers convenience, extensive functionality, and accuracy.

The SITRANS P DS III brings you tried and tested reliability with innovative premium sensor technology. The product features advanced accuracy and temperature range, as well as optimized measurement deviation to 0.065

SITRANS Pressure Transmitters

SITRANS P500

- Maximum measurement accuracy for highest precision requirements
 - Reduction of storage costs with a turndown ratio of 200:1
 - Reduction of maintenance costs due to high long-term stability
 - Easy operation using the 3-key operating design and graphic display
- Industry: Energy, Chemicals, Oil & Gas

SITRANS P410/P DS III/P310

- The tried-and-tested SITRANS P DS III, P310 and P410 offer the right solution for every measurement task
 - The portfolio had been enhanced to new levels of accuracy
 - Easy commissioning with 3 pushbuttons
 - Comprehensive approvals and certificates, thereby ideal for use in safety-related systems
- Industry: Energy, Chemicals, Oil & Gas, Water/Wastewater, District Energy, HVAC



percent with a turndown of 1:1 to 5:1. The DS III offers universal technology that enables better utilization of shut-off limits for tank filling levels, providing increased plant efficiency when performing processes such as level measurement. These improvements and the wider relative pressure range, which has been extended with a 3.36 psi cell, make this the highest performing transmitter for flue gas measurements in power stations and incineration plants.

P DS III features proven diaphragm materials in any applications from 0.29 psi to 14503 psi. With approval worldwide, it can be integrated into all common process control systems and now has accuracy of 0.065%, improved temperature error and greater overload capacity under relative pressure.

Since it is certified according to SIL2 and SIL2/3, it is ideally suited for use in safety-related applications. Thanks to its sensor technology, it has a very low conformity error of $\leq 0.065\%$ up to a turndown ratio of 5:1. With this accuracy, the efficiency of plants can be further optimized, for example, for level measurements. Due to the measurement accuracy, the shutoff limits for tank levels can be utilized more effectively, which results in higher production yields. The device is available for gauge pressure, absolute pressure, flow and level measurement. The SITRANS P DS III supports numerous bus systems for communication, for example, HART, PROFIBUS PA, PROFIsafe or FOUNDATION Fieldbus.

It also has all of the current approvals and certificates such as ATEX, FM/CSA, and more. A gauge pressure measuring cell with a measuring range of 3.63 psi is offered as well. It rounds off the lower end of the range in addition to the versions between 14.5 psi and 10153 psi. This variant can be optimally used in applications for flue gas measurements, for example.

SITRANS P410

SITRANS P410 is based on the same sensor technology as that of SITRANS P DS III. It supplements the ranks of digital transmitters with a measuring accuracy of 0.04%.

With its extreme measurement accuracy, the P410 is ideally suited for applications such as the flow measurements required when filling and emptying gas tanks. The same applies to pressure measurements for process gases or fluids in low- and high-pressure applications up to 10152 psi.

SITRANS P500

The SITRANS P500 features an unbeatable response time, long-term stability, accuracy of 0.03% and a wide range of additional functions. Highly user friendly

and proven, it's available for all common measurement ranges from 0.72 psi to 464 psi, adjustable down to 0.01 psi.

The differential pressure transmitter is capable of coping with the most stringent demands. And with a response time of 88 ms, it is the fastest measuring cell in the world. The P500 has the ability to operate in temperatures from -56.2 °F to 257 °F, making it ideally suited for the ultra-precise measurement of differential pressure, filling level and flow rate.

The extremely low long-term drift significantly extends calibration intervals, thereby reducing maintenance costs. In addition to determining differential pressure, it can also be used for the reliable measurement of levels, volume and mass flow. The measuring range lies between 0.01 and 464 psi; the wide selection of measuring cells has been recently expanded to include a 20 inH2O differential pressure cell for flow measurement with low differential pressures.

Make the accurate choice

Every process, every infrastructure and every environmental condition brings with it specific requirements. That's why we provide you a complete device family with SITRANS P pressure transmitters featuring a range of performance levels, load capacities and materials.

From the basic model, the P310, through the advanced SITRANS P410 to the Premium SITRANS P500, Siemens brings you the latest design innovations so you can realize even more accurate measurement results across the whole pressure transmitter range.

Measuring, positioning, recording and controlling are key parameters for all industrial processes. Process instrumentation from Siemens satisfies these demands with absolute reliability, helping you increase plant efficiency and improve product quality.

Siemens Industry, Inc.
Process Industries and Drives
100 Technology Drive
Alpharetta, GA 30005
1-800-365-8766
info.us@siemens.com

Subject to change without prior notice
Order No.: PIFL-00106-0416
All rights reserved
©2016 Siemens Industry, Inc.

The information provided in this flyer contains merely general descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.

All product designations may be trademarks or product names of Siemens or supplier companies whose use by third parties for their own purposes could violate the rights of the owners.