

SITRANS P Pressure Transmitter with flush-mounted process connections

Right next to the process



Answers for Industry.

SIEMENS

Thanks to the integral flush-mounted process connections for the SITRANS P DS III and SITRANS P 300 pressure transmitters, you can carry out measurements to very high standards of hygiene.

Wherever processes involve demanding requirements regarding measuring accuracy and hygiene at the same time, this type of flush-mounted system is the perfect solution. Whereas, up to now, a standard transmitter with a remote seal has always been used, it is now possible to eliminate the remote seal.

Engineered according to hygienic design guidelines, this design enables connection to the process without any dead space.

With certification according to EHEDG and 3A, the excellent surface finish, fill fluids in conformance with FDA and the outstanding ease of cleaning are certified by independent institutes.

- Ra values $\leq 0.8 \mu\text{m}$, product wetted ($\leq 0.8 / 1.5 \mu\text{m}$ in the weld seam area¹⁾) are guaranteed.
- Due to the flush-mounted stainless steel membrane, additional gasketing of the measuring cell (as with the ceramic measuring cell) is not necessary.
- Material of the product wetted parts:
stainless steel 1.4404/316L

Whether mounted on a tank or pipe, the pressure transmitters are highly suitable for materials which are difficult to measure (e. g. those with high viscosity, crystallization) and for CIP/SIP cleaning.

With a large selection of available process connections, these pressure transmitters can also be adapted exactly to the design of your equipment.



¹⁾ Connections with 3A certification Ra $\leq 0.8 \mu\text{m}$ with EHEDG certification $\leq 1.5 \mu\text{m}$

Your benefits at a glance:

■ High measuring accuracy

Due to the absence of a conventional remote seal, only one fill fluid is used. The reduced amount of oil leads to better physical behavior of the measurement setup. This has a positive impact on the performance of the transmitter with the result of reduced inaccuracy in measurements involving high temperature differences.

■ Especially suitable for CIP/SIP cleaning as well as process materials which are difficult to measure

Problem-free use for highly viscous and crystallizing media is possible. As the process connections have been designed without any dead space, depositing of material is avoided.

■ Simple cleaning of the non-wetted process parts by the measured material

If demanding requirements are placed on the housing of the transmitter in terms of hygiene and cleaning, the P300 is the best solution as it has an electro-polished stainless-steel housing.

■ Improved process stability and extended maintenance intervals

Due to a welded stainless-steel membrane at the process connection, gasketing of the measuring cell is eliminated.

Measuring cell seals, such as those needed for ceramic measuring cells, can become porous or lose their tension due to high process temperatures and aggressive media. As a consequence, leaks can occur which can have an adverse effect on the measuring results. With a welded membrane, these problems can be avoided.

■ High process temperatures

Due to cooling extensions and high-temperature fill fluids, process temperatures up to 250 °C (482 °F) are not a problem.

■ Modular concept with a wide variety of connections

Thanks to the modular structure of the capsule, the different types of process connection can be flexibly combined with the measuring cell. This results in short delivery times, even for special connections.

■ Flexible communications linkup

Communication can take place either by means of the HART protocol, PROFIBUS PA or Foundation Fieldbus.





Modular structure – the appropriate solution for every application

Whether flange, clamp, threaded union or special connection, all you have to do is choose the process connection which is suitable for your application. And if you can't find what you need, there is no need to worry. Thanks to the precisely elaborated modular concept of the SITRANS P pressure transmitters, new types of process connection can be developed at short notice to match the requirements of your specific application.

Even today, there are over 60 different types of process connection available and the number is increasing continually.

Basic devices



SITRANS P DS III



SITRANS P300

Temperature decoupler:

for process temperatures
up to 250 °C (482 °F)



Examples of process connections



Flange to
EN 1092-1 and
ASME B16.5



Hygienic
threaded unions
to DIN 11851



DRD flange



Hygienic connections:
Neumo, Bio-Connect
and Bio-Connect 5



Varivent
connections,
type N



Triclamp connec-
tions to DIN 32676
and ISO 2852

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Subject to change without prior notice
Order No.: E20001-A850-P710-X-7600
DISPO 27900
SCHÖ/25221 GI.SC.PS.XX01.52.0.10 WS 02104.0
Printed in Germany
© Siemens AG 2010

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