

Pressure Measurement

Transmitters for basic requirements

SITRANS P Compact for gauge and absolute pressure

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Overview



The SITRANS P Compact pressure transmitter is designed for the special requirements of the food, pharmaceutical and biotechnology industries.

The use of high-grade materials guarantees compliance with hygiene regulations.

Particular value has been placed on a high surface quality. It is therefore possible, for example, to guarantee roughness values down to $R_a = 0.4 \mu\text{m}$ ($1.57 \cdot 10^{-5}$ inch) in the wetted area (welded seam area $R_a < 0.8 \mu\text{m}$ ($3.15 \cdot 10^{-5}$ inch)). The system can be electropolished in addition.

A further important feature is the hygiene-based design of the process connection by means of various aseptic connections.

The completely welded stainless steel housing can be designed up to degree of protection IP67.

Using appropriate thermal decouplers, the SITRANS P Compact pressure transmitter can be used for process temperatures up to $200 \text{ }^\circ\text{C}$ ($392 \text{ }^\circ\text{F}$).

Benefits

- Measuring ranges from 0 to 160 mbar (0 to 2.32 psi) to 0 to 40 bar (0 to 580 psi)
- Linearity error including hysteresis $< +0.2 \%$ of full-scale value
- Piezo-resistive measurement system, vacuum-proof and overload-proof
- Hygiene-based design according to EHEDG, FDA and GMP recommendations
- Material and surface quality according to hygiene requirements
- Wetted parts made of stainless steel; completely welded
- Signal output 4 to 20 mA (0 to 20 mA as option)
- Stainless steel housing with degree of protection IP65 (IP67 as option)
- Process temperature up to $200 \text{ }^\circ\text{C}$ ($392 \text{ }^\circ\text{F}$)
- Explosion protection II 2G Ex [ib] IIC T6 to ATEX
- Easy and safe to clean

Application

The SITRANS P Compact pressure transmitter is designed for the special requirements of the food, pharmaceutical and biotechnology industries.

The use of high-grade materials guarantees compliance with hygiene regulations.

The SITRANS P Compact pressure transmitter is available in many versions. Exact adaptation of the pressure transmitter to conditions at the place of use is thus possible

Design

The electronics is potted to protect it against moisture, corrosive atmospheres and vibration.

Notes on operating the pressure transmitter

Compensation of internal atmospheric pressure

Compensation of the internal atmospheric pressure of the SITRANS P Compact pressure transmitters is performed as follows:

- in the plug versions by means of the screwed gland (IP65)
- in the field housings by means of an integral sintered filter (IP65) or a vented cable (IP67)
- in versions with cable outlet by means of a vented cable (IP67)

In the absolute pressure range there is no need for compensation with respect to atmospheric pressure.

Note: These degrees of protection are only achieved under the following conditions:

- if the pressure transmitter is installed correctly
- if the screwed glands are securely tightened
- if the cable diameters agree with the nominal diameters of the gaskets in the housing

Note: The integral EMC measures are only effective if the earth connection is made correctly.

CE marking

The CE marking of the pressure transmitter certifies compliance with the guidelines of the European Council (9/336/EC), the EMC law (13.11.1992), as well as the applicable generic standards.

Interference-free operation in systems and plants is achieved only if the specifications for shielding, earthing, cable routing and electrical isolation are observed during installation and assembly.

Hazardous areas

Note: Electrical equipment in hazardous areas must only be installed and operated by trained personnel.

Modifications to units and connections result in cancellation of the explosion protection and guarantee.

With intrinsically-safe circuits, make sure that equipotential bonding exists throughout the complete cabling inside and outside of the hazardous area. The limits specified in the ATEX approval must be observed.

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Function

The process pressure acts on a piezo-resistive semiconductor measuring bridge through a remote seal and a transmission liquid. The pressure transmitter converts the pressure values into a load-independent current.

A compensation network makes the output signal largely independent of the ambient temperature. As a result of a specially adapted remote seal connection with minimized volume, the influence of the process temperature on the output signal is greatly reduced compared to a conventional screw connection.

The pressure transmitters can be powered with a non-regulated DC voltage of 10 to 30 V. Output signals common to measuring technology are available.

Technical specifications

Pressure transmitters for food, pharmaceuticals and biotechnology

Mode of operation

Measuring principle piezo-resistive

Input

Measured variable gauge or absolute pressure
Measuring range 0 ... 160 mbar (0 ... 2.32 psi)
...
0 ... 40 bar (0 ... 580 psi)

Output

Output signal
• 2-wire system 4 ... 20 mA
• Three-wire system 0 ... 20 mA

Measuring accuracy

Acc. to IEC 60770-1
Error in measurement at limit setting incl. hysteresis and reproducibility $\leq 0.2\%$ of full-scale value
Adjustment accuracy $\leq \pm 0.2\%$ of full-scale value
Step response time < 20 ms
Influence of ambient temperature
On the enclosure
• Zero point < 0.2 %/10 K of full-scale value
• Measuring span < 0.2 %/10 K of full-scale value
On the process connection (remote seals) Zero error (depends on design)
• Flange remote seal
- DN 25 / 1" 4.8 mbar/10 K (0.069 psi/10 K)
- DN 32 / 1¼" 2.3 mbar/10 K (0.033 psi/10 K)
- DN 40 / 1½" 1.6 mbar/10 K (0.023 psi/10 K)
- DN 50 / 2" 0.6 mbar/10 K (0.009 psi/10 K)
• Clamp-on seal
- DN 25 / 1" 9.5 mbar/10 K (0.14 psi/10 K)
- DN 32 / 1¼" 4.1 mbar/10 K (0.06 psi/10 K)
- DN 40 / 1½" 3.9 mbar/10 K (0.05 psi/10 K)
- DN 50 / 2" 3.9 mbar/10 K (0.05 psi/10 K)

The zero error specified for the process connection should be considered as a guideline for a standard design. We will produce a detailed system calculation on request. Systems with reduced remote seal errors are available on request.

Rated conditions

Installation conditions

• Mounting position Any, vertical as standard

Ambient conditions

• Ambient temperature -10 ... +70 °C (14 ... 158 °F)
• Storage temperature -10 ... +90 °C (14 ... 194 °F)
• Process temperature Max. 200 °C (392 °F), depending on design

• Degree of protection (to EN 60529) IP65, optional IP67

Electromagnetic Compatibility

- Emitted interference To EN 50081 Part 1, issue 1993 (residential and industrial areas). The unit has no own emissions.
- Noise immunity to EN 50082 Part 2, issue March 1995 (industrial areas)

Design

Weight (without remote seal)

• Field enclosure ≈ 460 G (≈ 1.01 lb)
• Enclosure with plug ≈ 200 g (≈ 0.44 lb)

Enclosure

• Designs
• Field housing IP65 or IP67, with screwed gland
• Angled plug DIN 43650, IP65
• Cable connection, IP67
• Round plug connector M12, IP65

Material

Stainless steel, mat. no. 1.4404/316L/1.4305

Material of union nut

Polyamide (with electrical connection using plug or cable)
Electronics unit potted with silicone

Internal ventilation for measuring ranges < 16 bar (< 232 psi), through housing thread or connection cable depending on design

Process connection

• Versions See ordering data
• Material of coupling Stainless steel, mat. no. 1.4404/316L

Power supply

Terminal voltage on transmitter 10 ... 30 V DC

Rated voltage 24 V DC

Certificates and approvals

Classification according to pressure equipment directive (PED 97/23/EC) For gases of fluid group 1 and liquids of fluid group 1; complies with the requirements of article 3, paragraph 1 (appendix 1); assigned to category III, conformity evaluation module H by the TÜV Nord

Explosion protection

• Intrinsic safety "i" TÜV 03 ATEX 2099 X
- Marking Ex II 2G Ex ib IIC T6

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Selection and Ordering data	Order No.	Ord. code	Selection and Ordering data	Order No.	Ord. code
SITRANS P Compact pressure transmitters for pressure and absolute pressure with diaphragm flush at front	7MF8010-		SITRANS P Compact pressure transmitters for pressure and absolute pressure with diaphragm flush at front	7MF8010-	
2-wire system Process temperature up to 140 °C (284 °F) Accuracy: 0.2 % of full-scale value Output 4 ... 20 mA	1		2-wire system Process temperature up to 140 °C (284 °F) Accuracy: 0.2 % of full-scale value Output 4 ... 20 mA	1	
Diaphragm seal with quick-release clamp Milk pipe union to DIN 11851 with slotted union nut			Diaphragm seal with aseptic connection Aseptic screwed gland to DIN 11864-1, form A, with slotted union nut		
• DN 25	AD		• 1 inch	PM	
• DN 32	AE		• 1½ inch	PN	
• DN 40	AF		• 2 inch	PP	
• DN 50	AG		• 2½ inch	PQ	
• DN 65	AH		Aseptic screwed gland to DIN 11864-1, form A with threaded socket		
Milk pipe union to DIN 11851 with threaded socket			• 1 inch	QM	
• DN 25	BD		• 1½ inch	QN	
• DN 32	BE		• 2 inch	QP	
• DN 40	BF		• 2½ inch	QQ	
• DN 50	BG		Aseptic screwed NEUMO with slotted union nut ¹⁾		
• DN 65	BH		• DN 25	RD	
Clamp connection to DIN 32676			• DN 32	RE	
• DN 25	CD		• DN 40	RF	
• DN 40	CF		• DN 50	RG	
• DN 50	CG		Aseptic screwed NEUMO with threaded socket ¹⁾		
Clamp connection to ISO 2852			• DN 25	SD	
• 1 inch	DM		• DN 32	SE	
• 1½ inch	DN		• DN 40	SF	
• 2 inch	DP		• DN 50	SG	
• 2½ inch	DQ		Aseptic screwed NEUMO with clamp connection, form R ¹⁾		
IDF standard with slotted union nut			• DN 25	TD	
• 1 inch	EM		• DN 32	TE	
• 1½ inch	EN		• DN 40	TF	
• 2 inch	EP		• DN 50	TG	
IDF standard with threaded socket			Aseptic screwed NEUMO with clamp connection, form V ¹⁾		
• 1 inch	FM		• DN 25	UD	
• 1½ inch	FN		• DN 32	UE	
• 2 inch	FP		• DN 40	UF	
SMS standard with slotted union nut			• DN 50	UG	
• 1 inch	GM		Male thread DIN 3852 Form A		
• 1½ inch	GN		• G½", min. meas. span 1.6 bar (23.2 psi)	XA	
• 2 inch	GP		• G¾", min. meas. span 1 bar (14.5 psi)	XB	
SMS standard with threaded socket			• G1", min. meas. span 0.4 bar (5.8 psi)	XC	
• 1 inch	HM		• G1½", min. meas. span 0.25 bar (3.63 psi)	XD	
• 1½ inch	HN		• G2", min. meas. span 0.16 bar (2.32 psi)	XE	
• 2 inch	HP		Special version (add Order code and plain text)	ZA	J 1 Y
DRD flange, without welding-type flange			Filling liquid		
• DN 50, PN 40	JH		Vegetable oil	1	
Varivent connection (Tuchenhausen)			Medicinal white oil	2	
• D = 50, for Varivent housing DN 25 and 1 inch	KF	J 1 Y	Food oil, FDA-listed	3	
• D = 68, for Varivent housing DN 40 ... DN 125 and 1½ ... 6 inch	KL	L 1 Y	Special version	9	L 1 Y
Special version (add Order code and plain text)	ZA	J 1 Y	Output signal		
Filling liquid			4 ... 20 mA	1	
Vegetable oil	1		Special version (add Order code and plain text)	9	M 1 Y
Medicinal white oil	2				
Food oil, FDA-listed	3				
Special version	9	L 1 Y			
Output signal					
4 ... 20 mA	1				
Special version (add Order code and plain text)	9	M 1 Y			

¹⁾ Please specify as well:
Connections for pipes: R01, R02 or R03, see table "Further designs" on next page

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SITRANS P Compact pressure transmitters for pressure and absolute pressure with diaphragm flush at front	7MF8010-	
2-wire system Process temperature up to 140 °C (284 °F) Accuracy: 0.2 % of full-scale value Output 4 ... 20 mA	1	
Housing design (stainless steel mat. No. 1.4404/316L) / electr. connection		
Housing with angled plug to DIN 43650, IP65	1	
Housing with round plug M12, IP65, union nut made of polyamide	2	
Housing with round plug M12, IP65, union nut made of stainless steel	3	
Stainless steel field housing (small) with cable gland, IP65	4	
Stainless steel field housing (small) with cable gland, IP67 Internal ventilation for measuring ranges < 10 bar (< 145 psi)	5	
Measured range Overload pressure		
0 ... 160 mbar (0 ... 2.32 psi)	2 bar (29 psi)	BB
0 ... 250 mbar (0 ... 3.63 psi)	2 bar (29 psi)	BC
0 ... 400 mbar (0 ... 5.8 psi)	6 bar (87 psi)	BD
0 ... 600 mbar (0 ... 8.7 psi)	6 bar (87 psi)	BE
0 ... 1 bar (0 ... 14.5 psi)	10 bar (145 psi)	CA
0 ... 1.6 bar (0 ... 23.2 psi)	10 bar (145 psi)	CB
0 ... 2.5 bar (0 ... 36.3 psi)	16 bar (232 psi)	CC
0 ... 4 bar (0 ... 58 psi)	16 bar (232 psi)	CD
0 ... 6 bar (0 ... 87 psi)	30 bar (435 psi)	CE
0 ... 10 bar (0 ... 145 psi)	30 bar (435 psi)	DA
0 ... 16 bar (0 ... 232 psi)	50 bar (725 psi)	DB
0 ... 25 bar (0 ... 363 psi)	50 bar (725 psi)	DC
0 ... 40 bar (0 ... 580 psi)	70 bar (1015 psi)	DD
-160 ... 0 mbar (-2.32 ... 0 psi)	2 bar (29 psi)	EB
-250 ... 0 bar (-3.73 ... 0 psi)	2 bar (29 psi)	EC
-400 ... 0 bar (-5.8 ... 0 psi)	6 bar (87 psi)	ED
-600 ... 0 bar (-8.7 ... 0 psi)	6 bar (87 psi)	EE
-1 ... 0 bar (-14.5 ... 0 psi)	10 bar (145 psi)	FA
-1 ... 0.6 bar (-14.5 ... 8.7 psi)	10 bar (145 psi)	FB
-1 ... 1.5 bar (-14.5 ... 21.8 psi)	16 bar (232 psi)	FC
-1 ... 3 bar (-14.5 ... 43.5 psi)	16 bar (232 psi)	FD
-1 ... 5 bar (-14.5 ... 72.5 psi)	30 bar (435 psi)	FE

Selection and Ordering data	Order No.	Ord. code
SITRANS P Compact pressure transmitters for pressure and absolute pressure with diaphragm flush at front	7MF8010-	
2-wire system Process temperature up to 140 °C (284 °F) Accuracy: 0.2 % of full-scale value Output 4 ... 20 mA	1	
Measured range Overload pressure		
(continued)		
-1 ... +9 bar (-14.5 ... +130.5 psi)	30 bar (435 psi)	GA
-1 ... +15 bar (-14.5 ... +217.6 psi)	50 bar (725 psi)	GB
0 ... 1 bar a (0 ... 14.5 psia)	10 bar a (145 psia)	HA
0 ... 1.6 bar a (0 ... 23.2 psia)	10 bar a (145 psia)	HB
0 ... 2.5 bar a (0 ... 36.3 psia)	16 bar a (232 psia)	HC
0 ... 4 bar a (0 ... 58 psia)	16 bar a (232 psia)	HD
0 ... 6 bar a (0 ... 87 psia)	30 bar a (435 psia)	HE
0 ... 10 bar a (0 ... 145 psia)	30 bar a (435 psia)	JA
Special version (add Order code and plain text)		ZA P1 Y
Explosion protection		
without		1
with, to ATEX 100a, II 2 G, Ex ib IIC T6		2
Further designs	Order code	
Please add "Z" to Order No. and specify Order code		
Hygiene version	P01	
Roughness of process connection: Foil $R_a < 0.8 \mu\text{m}$ ($3.15 \cdot 10^{-8}$ inch); Welded seams $R_a < 1.5 \mu\text{m}$ ($5.9 \cdot 10^{-8}$ inch)		
Integral cooling element	K01	
Process temperature max. 200 °C (392 °F) instead of 140 °C (284 °F)		
Connections for pipe	R01 R02 R03	
Pipes to DIN 11850		
ISO pipes to DIN 2463		
Pipes to O. D. Tubing "BS 4825 Part 1"		
Certificates	C11 C12 C17 C18 C19	
Quality inspection certificate (Factory calibration) to IEC 60770-2		
Inspection certificate to EN 10204-3.1		
Use of FDA-listed remote seal filling liquids certified by test report to EN 10204-2.2		
Roughness depth measurement R_a certified by test report to EN 10204-3.1		
Certification to EHEDG for clamp-on seals with aseptic screwed gland to DIN 11864		

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Selection and Ordering data	Order No.	Ord. code	Selection and Ordering data	Order No.	Ord. code
SITRANS P Compact pressure transmitters for pressure and absolute pressure with clamp-on remote seal	7MF8010-		SITRANS P Compact pressure transmitters for pressure and absolute pressure with clamp-on remote seal	7MF8010-	
2-wire system Process temperature up to 140 °C (284 °F) Accuracy: 0.2 % of full-scale value Output 4 ... 20 mA	2		2-wire system Process temperature up to 140 °C (284 °F) Accuracy: 0.2 % of full-scale value Output 4 ... 20 mA	2	
Clamp-on remote seal (screwed gland at both ends) with quick-release clamps Milk pipe union to DIN 11851 with threaded socket			Clamp-on seal with aseptic connection Aseptic screwed gland to DIN 11864-1, form A with threaded socket		
• DN 25	AD		• 1 inch	QM	
• DN 32	AE		• 1½ inch	QN	
• DN 40	AF		• 2 inch	QP	
• DN 50	AG		Aseptic screwed NEUMO with threaded socket ¹⁾		
• DN 65	AH		• DN 25	SD	
Clamp connection to DIN 32676			• DN 32	SE	
• DN 25	CD		• DN 40	SF	
• DN 32	CE		• DN 50	SG	
• DN 40	CF		• DN 65	SH	
• DN 50	CG		Aseptic screwed NEUMO with clamp connection, form R ¹⁾		
• DN 65	CH		• DN 25	TD	
Clamp connection to ISO 2852 ¹⁾			• DN 32	TE	
• 1 inch	DM		• DN 40	TF	
• 1½ inch	DN		• DN 50	TG	
• 2 inch	DP		Aseptic screwed gland SÜDMO with threaded socket W 501		
• 2½ inch	DQ		• 1 inch	VM	
Special version (add Order code and plain text)	ZA	J 1 Y	• 1½ inch	VN	
Filling liquid			• 2 inch	VP	
Vegetable oil	1		Aseptic screwed gland SÜDMO with clamp connection W 601		
Medicinal white oil	2		• 1 inch	WM	
Food oil, FDA-listed	3		• 1½ inch	WN	
Special version (add Order code and plain text)	9	L 1 Y	• 2 inch	WP	
Output signal			Special version (add Order code and plain text)	ZA	J 1 Y
4 ... 20 mA	1		Filling liquid		
Special version (add Order code and plain text)	9	M 1 Y	Vegetable oil	1	
			Medicinal white oil	2	
			Food oil, FDA-listed	3	
			Special version (add Order code and plain text)	9	L 1 Y
			Output signal		
			4 ... 20 mA	1	
			Special version (add Order code and plain text)	9	M 1 Y

¹⁾ Please note the internal diameter of the pipe. Please specify pipe classes (see "Further designs")

¹⁾ Please specify as well:
Connections for pipes: R01, R02 or R03, see table "Further designs" on next page

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SITRANS P Compact pressure transmitters for pressure and absolute pressure with clamp-on remote seal	7MF8010-	
2-wire system Process temperature up to 140 °C (284 °F) Accuracy: 0.2 % of full-scale value Output 4 ... 20 mA	2	
Housing design (stainless steel mat. No. 1.4404/316L) / electr. connection		
Housing with angled plug to DIN 43650, IP65, union nut made of polyamide	1	
Housing with round plug M12, IP65, union nut made of polyamide	2	
Housing with round plug M12, IP65, union nut made of stainless steel	3	
Stainless steel field housing (small) with cable gland, IP65	4	
Stainless steel field housing (small) with cable gland, IP67 Internal ventilation for measuring ranges < 10 bar (< 145 psi)	5	
Measured range Overload pressure		
0 ... 160 mbar (0 ... 2.32 psi)	2 bar (29 psi)	BB
0 ... 250 mbar (0 ... 3.63 psi)	2 bar (29 psi)	BC
0 ... 400 mbar (0 ... 5.8 psi)	6 bar (87 psi)	BD
0 ... 600 mbar (0 ... 8.7 psi)	6 bar (87 psi)	BE
0 ... 1 bar (0 ... 14.5 psi)	10 bar (145 psi)	CA
0 ... 1.6 bar (0 ... 23.2 psi)	10 bar (145 psi)	CB
0 ... 2.5 bar (0 ... 36.3 psi)	16 bar (232 psi)	CC
0 ... 4 bar (0 ... 58 psi)	16 bar (232 psi)	CD
0 ... 6 bar (0 ... 87 psi)	30 bar (435 psi)	CE
0 ... 10 bar (0 ... 145 psi)	30 bar (435 psi)	DA
0 ... 16 bar (0 ... 232 psi)	50 bar (725 psi)	DB
0 ... 25 bar (0 ... 363 psi)	50 bar (725 psi)	DC
0 ... 40 bar (0 ... 580 psi)	70 bar (1015 psi)	DD
-160 ... 0 mbar (-2.32 ... 0 psi)	2 bar (29 psi)	EB
-250 ... 0 mbar (-3.73 ... 0 psi)	2 bar (29 psi)	EC
-400 ... 0 mbar (-5.8 ... 0 psi)	6 bar (87 psi)	ED
-600 ... 0 mbar (-8.7 ... 0 psi)	6 bar (87 psi)	EE
-1 ... 0 bar (-14.5 ... 0 psi)	10 bar (145 psi)	FA
-1 ... 0.6 bar (-14.5 ... 8.7 psi)	10 bar (145 psi)	FB
-1 ... 1.5 bar (-14.5 ... 21.8 psi)	16 bar (232 psi)	FC
-1 ... 3 bar (-14.5 ... 43.5 psi)	16 bar (232 psi)	FD
-1 ... 5 bar (-14.5 ... 72.5 psi)	30 bar (435 psi)	FE

Selection and Ordering data	Order No.	Ord. code
SITRANS P Compact pressure transmitters for pressure and absolute pressure with clamp-on remote seal	7MF8010-	
2-wire system Process temperature up to 140 °C (284 °F) Accuracy: 0.2 % of full-scale value Output 4 ... 20 mA	2	
Measured range Overload pressure (continued)		
-1 ... 9 bar (-14.5 ... 130.5 psi)	30 bar (435 psi)	GA
-1 ... 15 bar (-14.5 ... 217.6 psi)	50 bar (725 psi)	GB
0 ... 1 bar a (0 ... 14.5 psia)	10 bar a (145 psia)	HA
0 ... 1.6 bar a (0 ... 23.2 psia)	10 bar a (145 psia)	HB
0 ... 2.5 bar a (0 ... 36.3 psia)	16 bar a (232 psia)	HC
0 ... 4 bar a (0 ... 58 psia)	16 bar a (232 psia)	HD
0 ... 6 bar a (0 ... 87 psia)	30 bar a (435 psia)	HE
0 ... 10 bar a (0 ... 145 psia)	30 bar a (435 psia)	JA
Special version (add Order code and plain text)		ZA P1Y
Explosion protection		
without		1
with, to ATEX 100a, II 2 G, Ex ib IIC T6		2
Further designs		Order code
Please add "Z" to Order No. and specify Order code		
Hygiene version		P01
Roughness of process connection: Foil $R_a < 0.8 \mu\text{m}$ ($3.15 \cdot 10^{-8}$ inch); Welded seams $R_a < 1.5 \mu\text{m}$ ($5.9 \cdot 10^{-8}$ inch)		
Integral cooling element		K01
Process temperature max. 200 °C (392 °F) instead of 140 °C (284 °F)		
Connections for pipe		
Pipes to DIN 11850		R01
ISO pipes to ISO 2463		R02
Pipes to O. D. Tubing "BS 4825 Part 1"		R03
Certificates		
Quality inspection certificate (Five-step factory calibration) to IEC 60770-2		C11
Inspection certificate to EN 10204-3.1		C12
Use of FDA-listed remote seal filling liquids certified by test report to EN 10204-2.2		C17
Roughness depth measurement R_a certified by test report to EN 10204-3.1		C18
Certification to EHEDG for clamp-on seals with aseptic screwed gland to DIN 11864		C19

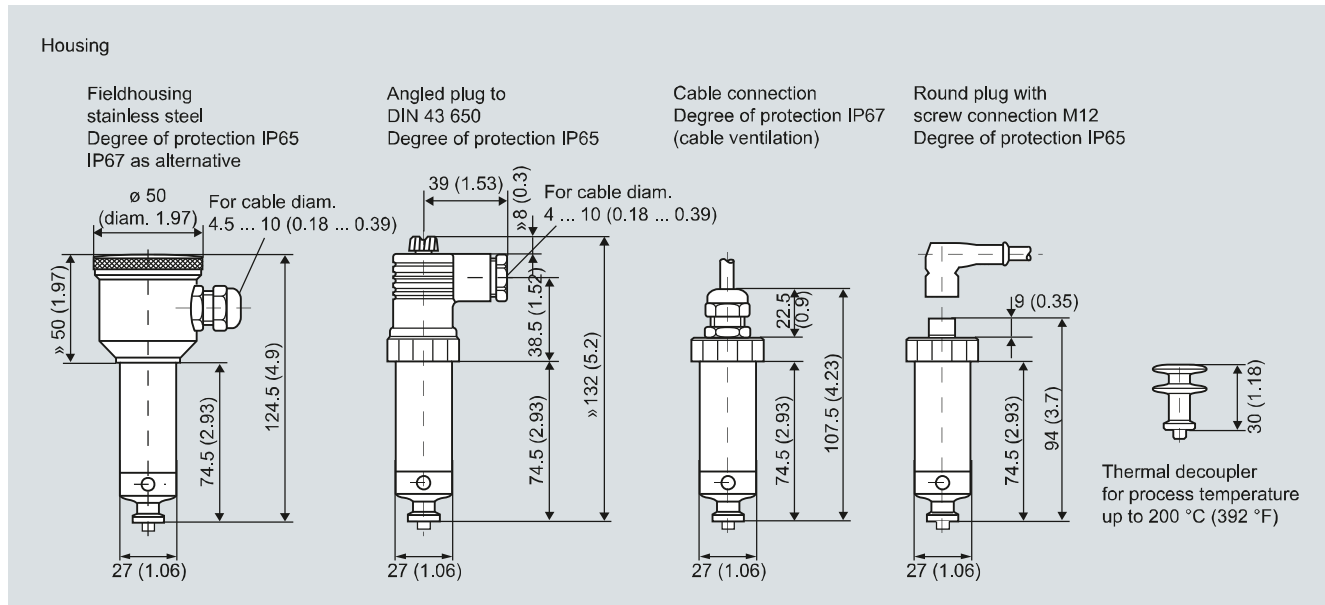
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Dimensional drawings



SITRANS P Compact, dimensions in mm (inch)

Process connections

Diaphragm seal with quick-release clamp

Milk pipe union to DIN 11851 with slotted union nut

DN	PN	H mm (inch)	G
25	40	24 (0.95)	Rd. 52 x 1/6"
32	40	24 (0.95)	Rd. 58 x 1/6"
40	40	24 (0.95)	Rd. 65 x 1/6"
50	25	25.1 (0.99)	Rd. 78 x 1/6"
65	25	28.6 (1.13)	Rd. 95 x 1/6"

Milk pipe union to DIN 11851 with threaded socket

DN	PN	H mm (inch)	G
25	40	-	Rd. 52 x 1/6"
32	40	20 (0.79)	Rd. 58 x 1/6"
40	40	20 (0.79)	Rd. 65 x 1/6"
50	25	20 (0.79)	Rd. 78 x 1/6"
65	25	22 (0.87)	Rd. 95 x 1/6"

Clamp connection to DIN 32676

DN	PN	H mm (inch)	D mm (inch)
25	16	14 (0.55)	50.5 (2)
40	16	14 (0.55)	50.5 (2)
50	16	14 (0.55)	64 (2.52)

Clamp connection to ISO 2852

DN	PN	H mm (inch)	D mm (inch)
1"	16	14 (0.55)	50.5 (2)
1½"	16	12 (0.47)	50.5 (2)
2"	16	14 (0.55)	64 (2.52)
2½"	16	14 (0.55)	77.5 (3.05)

IDF standard with slotted union nut

DN	PN	H mm (inch)	G inch (IDF thread)
1"	40	21 (0.83)	1"
1½"	40	13.5 (0.53)	1½"
2"	25	15 (0.59)	2"

IDF standard with threaded socket

DN	PN	H mm (inch)	G inch (IDF thread)
1"	40	21 (0.83)	1"
1½"	40	13.5 (0.53)	1½"
2"	25	15 (0.59)	2"

SMS standard with slotted union nut

DN	PN	H mm (inch)	G
1"	40	16 (0.63)	Rd 40 x 1.6"
1½"	40	16 (0.63)	Rd 60 x 1.6"
2"	25	16 (0.63)	Rd 70 x 1.6"

SMS standard with threaded socket

DN	PN	H mm (inch)	G
1"	40	16 (0.63)	Rd 40 x 1.6"
1½"	40	20 (0.79)	Rd 60 x 1.6"
2"	25	20 (0.79)	Rd 70 x 1.6"

DRD flange, without welding-type flange

DN	PN	H mm (inch)	D mm (inch)
50	40	16.7 (0.66)	65.5 (2.58)

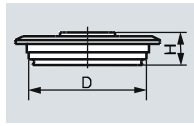
Pressure Measurement

Transmitters for basic requirements

SITRANS P Compact
for gauge and absolute pressure

1

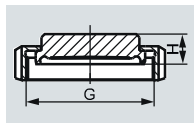
Varivent connection



DN	PN	H mm (inch)	D mm (inch)
25	25	19 (0.75)	50 (1.97)
40 ... 125	25/10	19 (0.75)	68 (2.68)

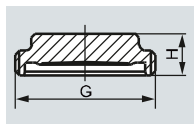
Diaphragm seal with aseptic connection

Aseptic screwed gland to DIN 11864-1, form A, with slotted union nut



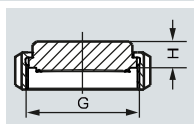
DN	PN	H mm (inch)	G
1"	40	20 (0.79)	Rd 52 x 1/6"
1½"	40	20 (0.79)	Rd 58 x 1/6"
2"	25	20 (0.79)	Rd 65 x 1/6"
2½"	25	20 (0.79)	Rd 78 x 1/6"

Aseptic screwed gland to DIN 11864-1, form A, with threaded socket



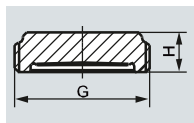
DN	PN	H mm (inch)	G
1"	40	15 (0.59)	Rd 52 x 1/6"
1½"	40	15 (0.59)	Rd 58 x 1/6"
2"	25	15 (0.59)	Rd 65 x 1/6"
2½"	25	15 (0.59)	Rd 78 x 1/6"

Aseptic screwed NEUMO BioConnect with slotted union nut



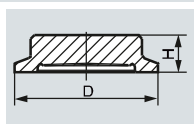
DN	PN	H mm (inch)	G
25	16	15 (0.59)	M 42 x 2
32	16	15 (0.59)	M 52 x 2
40	16	15 (0.59)	M 56 x 2
50	16	15 (0.59)	M 68 x 2

Aseptic screwed NEUMO BioConnect with threaded socket



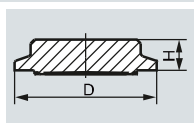
DN	PN	H mm (inch)	G
25	16	20 (0.79)	M 42 x 2
32	16	20 (0.79)	M 52 x 2
40	16	20 (0.79)	M 56 x 2
50	16	20 (0.79)	M 68 x 2

Aseptic screwed NEUMO BioConnect with clamp connection, form R



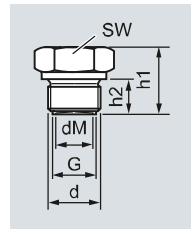
DN	PN	H mm (inch)	D mm (inch)
25	40	20 (0.79)	50.5 (2)
32	40	20 (0.79)	50.5 (2)
40	40	20 (0.79)	64 (2.52)
50	25	20 (0.79)	77.4 (3.05)

Aseptic screwed NEUMO BioConnect with clamp connection, form V



DN	PN	H mm (inch)	D mm (inch)
25	40	15 (0.59)	50.5 (2)
32	40	15 (0.59)	50.5 (2)
40	40	15 (0.59)	64 (2.52)
50	25	15 (0.59)	77.4 (3.05)

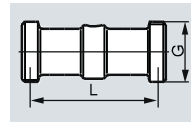
Male thread DIN 3852, form A



G	d mm (inch)	d _M mm (inch)	h ₁ mm (inch)	h ₂ mm (inch)	SW mm (inch)
G½A	26 (1.02)	17.5 (0.69)	27 (1.06)	14 (0.55)	27 (1.06)
G¾A	32 (1.26)	22.6 (0.89)	31 (1.22)	16 (0.63)	32 (1.26)
G1A	39 (1.54)	27 (1.06)	33 (1.30)	18 (0.71)	51 (2.01)
G1½A	55 (2.17)	40 (1.57)	40 (1.57)	22 (0.87)	55 (2.17)
G2A	68 (2.68)	51 (2.00)	42 (1.65)	24 (0.94)	70 (2.76)

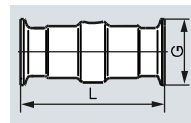
Clamp-on remote seal (screwed gland at both ends) with quick-release clamps

Milk pipe union to DIN 11851 with threaded socket



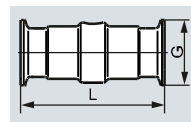
DN	PN	L mm (inch)	G
25	40	110 (4.33)	Rd 52 x 1/6"
32	40	110 (4.33)	Rd 58 x 1/6"
40	40	110 (4.33)	Rd 65 x 1/6"
50	25	110 (4.33)	Rd 78 x 1/6"
65	25	110 (4.33)	Rd 95 x 1/6"

Clamp connection to DIN 32676



DN	PN	L mm (inch)	D mm (inch)
25	16	110 (4.33)	50.5 (2)
32	16	110 (4.33)	50.5 (2)
40	16	110 (4.33)	50.5 (2)
50	16	110 (4.33)	64 (2.52)
65	10	110 (4.33)	91 (3.58)

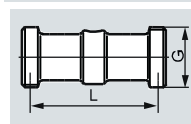
Clamp connection to ISO 2852



DN	PN	L mm (inch)	D mm (inch)
1"	16	110 (4.33)	50.5 (2)
1½"	16	110 (4.33)	50.5 (2)
2"	16	110 (4.33)	64 (2.52)
2½"	16	110 (4.33)	91 (3.58)

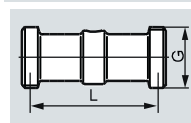
Clamp-on seal with aseptic connection

Aseptic screwed gland to DIN 11864-1, form A, with threaded socket



DN	PN	L mm (inch)	G
1"	40	110 (4.33)	Rd 52 x 1/6"
1½"	40	110 (4.33)	Rd 65 x 1/6"
2"	25	110 (4.33)	Rd 78 x 1/6"

Aseptic screwed NEUMO BioConnect with threaded socket



DN	PN	L mm (inch)	G
25	16	110 (4.33)	M 42 x 2
32	16	110 (4.33)	M 52 x 2
40	16	110 (4.33)	M 56 x 2
50	16	110 (4.33)	M 68 x 2
65	16	110 (4.33)	M 90 x 3

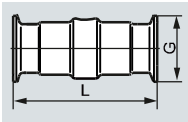
Pressure Measurement

Transmitters for basic requirements

SITRANS P Compact for gauge and absolute pressure

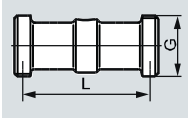
1

Aseptic screwed NEUMO BioConnect with clamp connection, form R



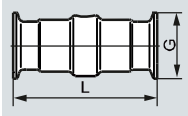
DN	PN	L mm (inch)	D mm (inch)
25	16	110 (4.33)	50.4 (2)
32	16	110 (4.33)	50.4 (2)
40	16	110 (4.33)	64 (2.52)
50	16	110 (4.33)	77.4 (3.05)

Aseptic screwed gland SÜDMO with threaded socket W 501



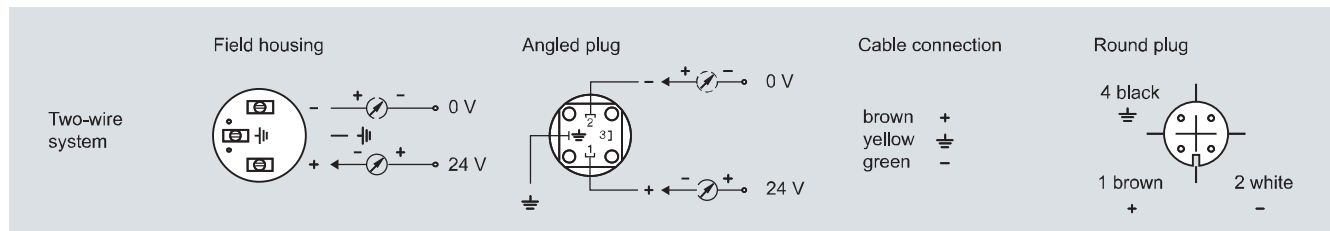
DN	PN	L mm (inch)	G
1"	25	110 (4.33)	Rd 44 x 1/6"
1½"	25	110 (4.33)	Rd 58 x 1/6"
2"	20	110 (4.33)	Rd 78 x 1/6"

Aseptic screwed gland SÜDMO with threaded socket W 601



DN	PN	L mm (inch)	D mm (inch)
1"	16	110 (4.33)	50.5 (2)
1½"	16	110 (4.33)	64 (2.52)
2"	16	110 (4.33)	77.5 (3.05)

Schematics



SITRANS P Compact, connection diagram