

Pressure measurement

Pressure transmitters

Single-range transmitters / SITRANS P Compact

Overview



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

The use of high-quality materials guarantees adherence to hygiene provisions.

Particular importance was placed on high surface quality. In addition, the system can be electropolished.

A further important feature is the hygienic design of the process connection with different aseptic connections.

The fully welded stainless steel enclosure can be designed with degree of protection up to IP67.

By means of corresponding temperature decouplers, the SITRANS P Compact transmitter can be used for temperatures up to 200 °C (392 °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 incl. hysteresis < +0.2% of the 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 enclosure with degree of protection IP65 (IP67 as option)
- Process temperature up to 200 °C (392 °F)
- Explosion protection II 2G EEx [ib] IIC T6 to ATEX
- Easy and safe to clean

Application

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

The use of high-quality materials guarantees adherence to hygiene provisions.

The SITRANS P Compact pressure transmitter can be ordered in a large number of different variants. This enables precise adaptation of the pressure transmitter to the conditions of the usage location.

Design

The electronics are potted for protection against humidity, corrosive atmospheres and vibrations.

Operating instructions for the pressure transmitter

Atmospheric internal pressure compensation

The atmospheric internal pressure compensation of the SITRANS P Compact pressure transmitter is designed as follows in the over-pressure measuring range:

- With connector designs via plug cable gland (IP65)
- In field enclosures via an integrated sinter filter (IP65) or a ventilated connecting cable (IP67)
- In versions with cable outlet via ventilated connecting cable (IP67)

In the absolute pressure area, no internal pressure compensation to the atmosphere is necessary.

Note: The degrees of protection specified above are only achieved under the following conditions:

- Proper mounting of the pressure transmitter
- Firmly tightened plug cable glands
- Cable diameters match nominal diameters of sealing inserts in the enclosure

Note: The integrated measures for EMC are only effective with a properly connected ground connection.

CE marking

The CE marking of the pressure transmitter certifies adherence with the guidelines of the European Council (9/336/EEC), the EMC legislation (13 Nov. 1992) and the applicable generic standards.

Problem-free operation in systems and plants is only achieved when the conditions for shielding, grounding, cable routing and electrical isolation are complied with during installation and mounting.

Hazardous areas

Note: In hazardous areas, electrical equipment can only be installed and operated by qualified expert personnel.

Changes at devices and connections void the Ex protection and the warranty.

In intrinsically safe circuits, equipotential bonding must be ensured over the entire course of the cable run, within and outside of the hazardous area. The limit values listed in the ATEX approval need to be considered.

Function

Process pressure acts on a piezo-resistive semi-conductor measuring bridge via a remote seal diaphragm by means of a transfer fluid. The pressure transmitter converts the measured pressure values into a load-independent current signal.

A compensation network achieves a large degree of independence of the output signal from the ambient temperature. With a specially adapted remote seal connection with minimized system volume, the influence of the process temperature on the output signal is reduced significantly as compared to a conventional screw connection.

The pressure transmitters can be supplied with an unregulated DC voltage of 10 to 30 V. The output signals common in measuring technology are available.

Selection and ordering data

	Article No.	Order code
SITRANS P Compact pressure transmitter for gauge and absolute pressure, with flush-mounted diaphragm	7MF8010-	
	1 ● ● ● ● - ● ● ● ● ● ● ● ●	
2-wire system, process temperature up to 140 °C (284 °F), measurement deviation: 0.2% of full-scale value, output 4 ... 20 mA		
Click the article number for online configuration in the PIA Life Cycle Portal.		
Diaphragm seal with quick-release		
Milk pipe union acc. to DIN 11851 with slotted union nut		
• DN 25	A D	
• DN 32	A E	
• DN 40	A F	
• DN 50	A G	
• DN 65	A H	
Dairy connection according to DIN 11851 with screwed connector		
• DN 25	B D	
• DN 32	B E	
• DN 40	B F	
• DN 50	B G	
• DN 65	B H	
Clamp connection acc. to DIN 32676		
• DN 25	C D	
• DN 40	C F	
• DN 50	C G	
Clamp connection acc. to ISO 2852		
• 1 inch	D M	
• 1½ inches	D N	
• 2 inches	D P	
• 2½ inches	D Q	
IDF standard with slotted union nut		
• 1 inch	E M	
• 1½ inches	E N	
• 2 inches	E P	
IDF standard with screwed connector		
• 1 inch	F M	
• 1½ inches	F N	
• 2 inches	F P	
SMS standard with slotted union nut		
• 1 inch	G M	
• 1½ inches	G N	
• 2 inches	G P	
SMS standard with screwed connector		
• 1 inch	H M	
• 1½ inches	H N	
• 2 inches	H P	
DRD flange without welded flange		
• DN 50, PN 40	J H	
Varivent connection (Tuchenhausen Co.)		
• D = 50 for Varivent enclosure DN 25 and 1 inch	K F	
• D = 68 for Varivent enclosure DN 40 ... DN 125 and 1½ ... 6 inches	K L	
Special design (specify order code and plain text)	Z A	J 1 Y
Filling liquid		
Food-grade oil, FDA-listed	3	
Special design (specify order code and plain text)	9	L 1 Y

Pressure measurement

Pressure transmitters

Single-range transmitters / SITRANS P Compact

Selection and ordering data (continued)

	Article No.	Order code
SITRANS P Compact pressure transmitter for gauge and absolute pressure, with flush-mounted diaphragm	7MF8010-	
	1 ● ● ● ● - ● ● ● ● ● ● ● ●	
Output signal		
4 ... 20 mA	1	
Special design (specify order code and plain text)	9	M 1 Y
Diaphragm seal with aseptic connection		
Aseptic screw gland according to DIN 11864-1, Form A, with slotted union nut		
• 1 inch	P M	
• 1½ inches	P N	
• 2 inches	P P	
• 2½ inches	P Q	
Aseptic screw gland according to DIN 11864-1, Form A, with screwed connector		
• 1 inch	Q M	
• 1½ inches	Q N	
• 2 inches	Q P	
• 2½ inches	Q Q	
NEUMO BioConnect aseptic screw gland with slotted union nut ¹⁾		
• DN 25	R D	
• DN 32	R E	
• DN 40	R F	
• DN 50	R G	
NEUMO BioConnect aseptic screw gland with screwed connector ¹⁾		
• DN 25	S D	
• DN 32	S E	
• DN 40	S F	
• DN 50	S G	
NEUMO BioConnect aseptic clamp connection, form R ¹⁾		
• DN 25	T D	
• DN 32	T E	
• DN 40	T F	
• DN 50	T G	
NEUMO BioConnect aseptic clamp connection, form V ¹⁾		
• DN 25	U D	
• DN 32	U E	
• DN 40	U F	
• DN 50	U G	
Male thread according to DIN 3852, form A		
• G1", min. measuring span. 0.4 bar (5.8 psi)	X C	
• G1½", min. measuring span. 0.25 bar (3.63 psi)	X D	
• G2", min. measuring span. 0.16 bar (2.32 psi)	X E	
Special design (specify order code and plain text)	Z A	J 1 Y
Filling liquid		
Food-grade oil, FDA-listed	3	
Special design (specify order code and plain text)	9	L 1 Y
Output signal		
4 ... 20 mA	1	
Special design (specify order code and plain text)	9	M 1 Y
Enclosure version (stainless steel, mat. no. 1.4404/316L) / electrical connection		
Enclosure with angled device plug according to DIN 43650, IP65	1	
Enclosure with M12 device plug, IP65, fastening union nut made of polyamide	2	
Enclosure with M12 device plug, IP65, fastening union nut made of stainless steel	3	
Field enclosure (small) made of stainless steel with cable gland, IP65	4	
Field enclosure (small) made of stainless steel with cable gland, IP67, internal ventilation for measuring ranges < 16 bar (< 232 psi)	5	

Selection and ordering data (continued)

		Article No.	Order code
SITRANS P Compact pressure transmitter for gauge and absolute pressure, with flush-mounted diaphragm		7MF8010-	
		1 ● ● ● ● - ● ● ● ● ● ● ● ●	
Measuring range	Overload pressure		
0 ... 160 mbar (0 ... 2.32 psi)	1 bar (14.5 psi)		B B
0 ... 250 mbar (0 ... 3.63 psi)	1 bar (14.5 psi)		B C
0 ... 400 mbar (0 ... 5.8 psi)	3 bar (43.5 psi)		B D
0 ... 600 mbar (0 ... 8.7 psi)	3 bar (43.5 psi)		B E
0 ... 1 bar (0 ... 14.5 psi)	3 bar (43.5 psi)		C A
0 ... 1.6 bar (0 ... 23.2 psi)	10 bar (145 psi)		C B
0 ... 2.5 bar (0 ... 36.3 psi)	10 bar (145 psi)		C C
0 ... 4 bar (0 ... 58 psi)	20 bar (290 psi)		C D
0 ... 6 bar (0 ... 87 psi)	60 bar (870 psi)		C E
0 ... 10 bar (0 ... 145 psi)	60 bar (870 psi)		D A
0 ... 16 bar (0 ... 232 psi)	60 bar (870 psi)		D B
0 ... 25 bar (0 ... 363 psi)	60 bar (870 psi)		D C
0 ... 40 bar (0 ... 580 psi)	100 bar (1450 psi)		D D
-160 ... 0 mbar (-2.32 ... 0 inH ₂ O)	1 bar (14.5 psi)		E B
-250 ... 0 mbar (-3.73 ... 0 inH ₂ O)	1 bar (14.5 psi)		E C
-400 ... 0 mbar (-5.8 ... 0 inH ₂ O)	3 bar (43.5 psi)		E D
-600 ... 0 mbar (-8.7 ... 0 inH ₂ O)	3 bar (43.5 psi)		E E
-1 ... 0 bar (-14.5 ... 0 psi)	3 bar (43.5 psi)		F A
-1 ... 0.6 bar (-14.5 ... 8.7 psi)	10 bar (145 psi)		F B
-1 ... 1.5 bar (-14.5 ... 21.8 psi)	10 bar (145 psi)		F C
-1 ... 3 bar (-14.5 ... 43.5 psi)	20 bar (290 psi)		F D
-1 ... 5 bar (-14.5 ... 72.5 psi)	20 bar (290 psi)		F E
-1 ... 9 bar (-14.5 ... 130.5 psi)	60 bar (870 psi)		G A
-1 ... 15 bar (-14.5 ... 217.6 psi)	60 bar (870 psi)		G B
0 ... 1 bar a (0 ... 14.5 psi a)	3 bar a (43.5 psi a)		H A
0 ... 1.6 bar a (0 ... 23.2 psi a)	10 bar a (145 psi a)		H B
0 ... 2.5 bar a (0 ... 36.3 psi a)	10 bar a (145 psi a)		H C
0 ... 4 bar a (0 ... 58 psi a)	10 bar a (145 psi a)		H D
0 ... 6 bar a (0 ... 87 psi a)	60 bar a (870 psi a)		H E
0 ... 10 bar a (0 ... 145 psi a)	60 bar a (870 psi a)		J A
Special design (specify order code and plain text)			Z A P 1 Y
Explosion protection			
None			1
With, according to ATEX 100a, II 2 G, Ex ib IIC T6			2

1) Please make sure to also specify: Connections for pipes: R01, R02 or R03, see "Options" table.

		Article No.	Order code
SITRANS P Compact pressure transmitter for gauge and absolute pressure, with inline seal 2-wire system, process temperature up to 140 °C (284 °F), measurement deviation: 0.2% of full-scale value, output 4 ... 20 mA		7MF8010-	
		2 ● ● ● ● - ● ● ● ● ● ● ● ●	
Click the article number for online configuration in the PIA Life Cycle Portal.			
Inline seal (screw gland at each end) with quick-release clamps			
Dairy connection according to DIN 11851 with screwed connector			
• DN 25			A D
• DN 32			A E
• DN 40			A F
• DN 50			A G
• DN 65			A H
Clamp connection acc. to DIN 32676			
• DN 25			C D
• DN 32			C E
• DN 40			C F
• DN 50			C G

Pressure measurement

Pressure transmitters

Single-range transmitters / SITRANS P Compact

Selection and ordering data (continued)

	Article No.	Order code
SITRANS P Compact pressure transmitter for gauge and absolute pressure, with inline seal 2-wire system, process temperature up to 140 °C (284 °F), measurement deviation: 0.2% of full-scale value, output 4 ... 20 mA	7MF8010- 2 ● ● ● ● - ● ● ● ● ● ● ● ●	
• DN 65	C H	
Clamp connection acc. to ISO 2852 ¹⁾		
• 1 inch	D M	
• 1½ inches	D N	
• 2 inches	D P	
• 2½ inches	D Q	
Special design (specify order code and plain text)	Z A	J 1 Y
Filling liquid		
Food-grade oil, FDA-listed	3	
Special design (specify order code and plain text)	9	L 1 Y
Output signal		
4 ... 20 mA	1	
Special design (specify order code and plain text)	9	M 1 Y
Inline seals with aseptic connection		
Aseptic screw gland according to DIN 11864-1, Form A, with screwed connector		
• 1 inch	Q M	
• 1½ inches	Q N	
• 2 inches	Q P	
NEUMO BioConnect aseptic screw gland with screwed connector ²⁾		
• DN 25	S D	
• DN 32	S E	
• DN 40	S F	
• DN 50	S G	
• DN 65	S H	
NEUMO BioConnect aseptic clamp connection, form R ²⁾		
• DN 25	T D	
• DN 32	T E	
• DN 40	T F	
• DN 50	T G	
SÜDMO aseptic screw gland with W 501 screwed connector ²⁾		
• 1 inch	V M	
• 1½ inches	V N	
• 2 inches	V P	
SÜDMO aseptic screw gland with W 601 clamp connection ²⁾		
• 1 inch	W M	
• 1½ inches	W N	
• 2 inches	W P	
Special design (specify order code and plain text)	Z A	J 1 Y
Filling liquid		
Food-grade oil, FDA-listed	3	
Special design (specify order code and plain text)	9	L 1 Y
Output signal		
4 ... 20 mA	1	
Special design (specify order code and plain text)	9	M 1 Y
Enclosure version (stainless steel, mat. no. 1.4404/316L) / electrical connection		
Enclosure with angled device plug according to DIN 43650, IP65, securing union nut made of polyamide		1
Enclosure with M12 device plug, IP65, fastening union nut made of polyamide		2
Enclosure with M12 device plug, IP65, fastening union nut made of stainless steel		3
Field enclosure (small) made of stainless steel with cable gland, IP65		4
Field enclosure (small) made of stainless steel with cable gland, IP67, internal ventilation for measuring ranges < 16 bar (< 232 psi)		5

Selection and ordering data (continued)

		Article No.	Order code
SITRANS P Compact pressure transmitter for gauge and absolute pressure, with inline seal 2-wire system, process temperature up to 140 °C (284 °F), measurement deviation: 0.2% of full-scale value, output 4 ... 20 mA		7MF8010-	
		2 ● ● ● ● - ● ● ● ● ● ● ● ●	
Measuring range	Overload pressure		
0 ... 160 mbar (0 ... 2.32 psi)	1 bar (14.5 psi)		B B
0 ... 250 mbar (0 ... 3.63 psi)	1 bar (14.5 psi)		B C
0 ... 400 mbar (0 ... 5.8 psi)	3 bar (43.5 psi)		B D
0 ... 600 mbar (0 ... 8.7 psi)	3 bar (43.5 psi)		B E
0 ... 1 bar (0 ... 14.5 psi)	3 bar (43.5 psi)		C A
0 ... 1.6 bar (0 ... 23.2 psi)	10 bar (145 psi)		C B
0 ... 2.5 bar (0 ... 36.3 psi)	10 bar (145 psi)		C C
0 ... 4 bar (0 ... 58 psi)	20 bar (290 psi)		C D
0 ... 6 bar (0 ... 87 psi)	60 bar (870 psi)		C E
0 ... 10 bar (0 ... 145 psi)	60 bar (870 psi)		D A
0 ... 16 bar (0 ... 232 psi)	60 bar (870 psi)		D B
0 ... 25 bar (0 ... 363 psi)	60 bar (870 psi)		D C
0 ... 40 bar (0 ... 580 psi)	100 bar (1450 psi)		D D
-160 ... 0 mbar (-2.32 ... 0 psi)	1 bar (14.5 psi)		E B
-250 ... 0 mbar (-3.63 ... 0 psi)	1 bar (14.5 psi)		E C
-400 ... 0 mbar (-5.8 ... 0 psi)	3 bar (43.5 psi)		E D
-600 ... 0 mbar (-8.7 ... 0 psi)	3 bar (43.5 psi)		E E
-1 ... 0 bar (-14.5 ... 0 psi)	3 bar (43.5 psi)		F A
-1 ... 0.6 bar (-14.5 ... 8.7 psi)	10 bar (145 psi)		F B
-1 ... 1.5 bar (-14.5 ... 21.8 psi)	10 bar (145 psi)		F C
-1 ... 3 bar (-14.5 ... 43.5 psi)	20 bar (290 psi)		F D
-1 ... 5 bar (-14.5 ... 72.5 psi)	20 bar (290 psi)		F E
-1 ... 9 bar (-14.5 ... 130.5 psi)	60 bar (870 psi)		G A
-1 ... 15 bar (-14.5 ... 217.6 psi)	60 bar (870 psi)		G B
0 ... 1 bar a (0 ... 14.5 psi a)	3 bar a (43.5 psi a)		H A
0 ... 1.6 bar a (0 ... 23.2 psi a)	10 bar a (145 psi a)		H B
0 ... 2.5 bar a (0 ... 36.3 psi a)	10 bar a (145 psi a)		H C
0 ... 4 bar a (0 ... 58 psi a)	10 bar a (145 psi a)		H D
0 ... 6 bar a (0 ... 87 psi a)	60 bar (870 psi a)		H E
0 ... 10 bar a (0 ... 145 psi a)	60 bar (870 psi a)		J A
Special design (specify order code and plain text)			Z A P 1 Y
Explosion protection			
None			1
With explosion protection according to ATEX 100a, II 2 G, Ex ib IIC T6			2

- 1) Observe inside diameter of the pipe. Please specify pipe classes (see "Options").
- 2) Please make sure to also specify: Connections for pipes: R01, R02 or R03, see "Options" table.

Options	Order code
Add "-Z" to article number, specify order code and plain text or entry from drop-down list.	
Hygiene version Roughness process connection: Foil $R_a < 0.8 \mu\text{m}$ ($3.15 \cdot 10^{-8}$ inches); welding seams $R_a < 1.5 \mu\text{m}$ ($5.9 \cdot 10^{-8}$ inches)	P01
Integrated cooling element Process temperature max. 200 °C (392 °F) instead of 140 °C (284 °F)	K01
Connections for pipes	
Pipes according to DIN 11850	R01
ISO pipes according to DIN 2463	R02
Pipes acc. to >>>O. D. Tubing "BS 4825 Part 1"<<<	R03
Certificates	
Quality inspection certificate (5-point characteristic curve test) according to IEC 62828-2	C11
Inspection certificate according to EN 10204-3.1	C12

Pressure measurement

Pressure transmitters

Single-range transmitters / SITRANS P Compact

Selection and ordering data (continued)

Options	Order code
Add "-Z" to article number, specify order code and plain text or entry from drop-down list.	
Use of FDA-listed remote seal filling liquids certified with a factory certificate according to EN 10204-2.2	C17
Roughness depth measurement R_a certified with a factory certificate according to EN 10204-3.1	C18
Certification according to EHEDG for inline seal with aseptic screw gland according to DIN 11864	C19

Technical specifications

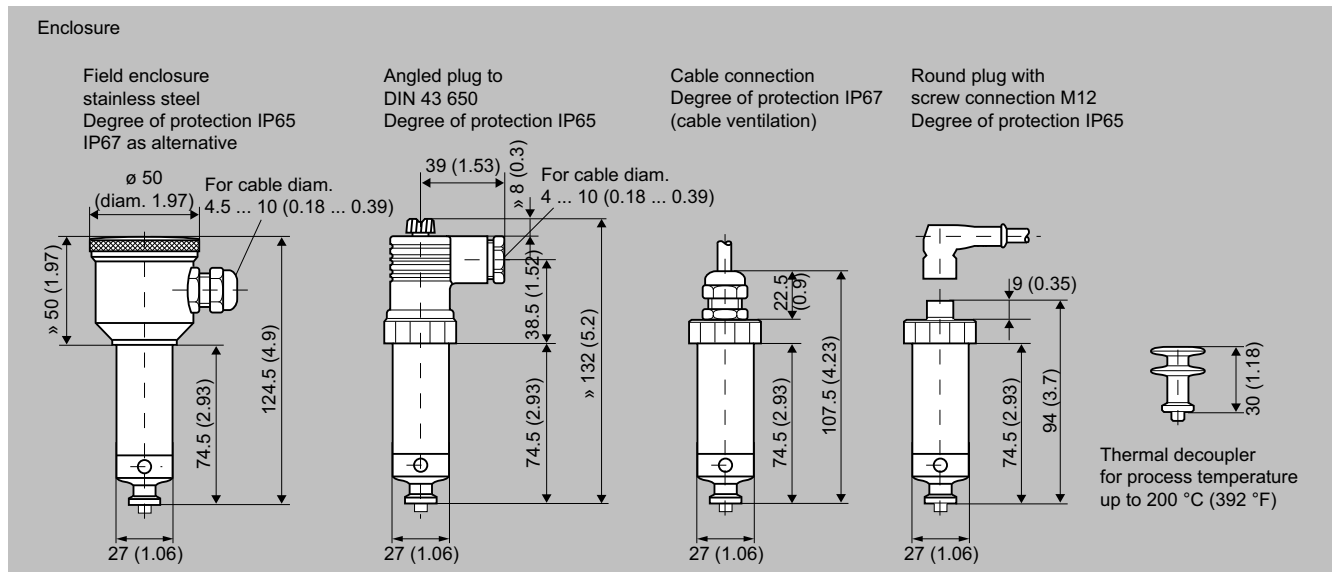
Pressure transmitters for food, pharmaceuticals and biotechnology	
Mode of operation	
Measuring principle	Piezo-resistive
Input	
Measured variable	Gauge or absolute pressure
Measuring range	0 ... 160 mbar (0 ... 2.32 psi) ... 0 ... 40 bar (0 ... 580 psi)
Output	
Output signal	
• 2-wire system	4 ... 20 mA
• 3-wire system	0 ... 20 mA
Measuring accuracy	
Measurement deviation at limit setting including hysteresis and reproducibility	According to IEC 62828-1 ≤ 0.2% of full-scale value
Adjustment accuracy	≤ ±0.2% of full-scale value
Step response time	< 20 ms
Effect 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)	
• Flange remote seal	Zero-point error (dependent on design) ¹⁾
- 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)
• Inline seal	
- DN 25/1"	9.5 mbar/10 K (0.138 psi/10 K)
- DN 32/1¼"	4.1 mbar/10 K (0.060 psi/10 K)
- DN 40/1½"	3.9 mbar/10 K (0.057 psi/10 K)
- DN 50/2"	3.9 mbar/10 K (0.057 psi/10 K)
Operating 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
• Vacuum-resistant	0 mbar (0 psi) absolute at max. 50 °C. Higher process temperatures on request.
• Degree of protection according to IEC 60529	IP65, optional IP67

Technical specifications (continued)

Pressure transmitters for food, pharmaceuticals and biotechnology	
Electromagnetic Compatibility	
- Emitted interference	To EN 50081 Part 1, issue 1993 (residential and industrial areas). The device has no own emissions.
- Noise immunity to	EN 50082 Part 2, issue March 1995 (industrial areas)
Structural design	
Weight (without remote seal)	
• Field enclosure	≈ 460 G (≈ 1.01 lb)
• Enclosure with plug	≈ 200 g (≈ 0.44 lb)
Enclosure	
• Designs	<ul style="list-style-type: none"> Field enclosure IP65 or IP67, with screw gland Angled device plug DIN 43650, IP65 Cable connection, IP67 M12 device plug, 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 enclosure thread or connecting cable depending on design	
Process connection	
• Versions	See ordering data
• Material of coupling	Stainless steel, mat. no. 1.4404/316L
Auxiliary power	
Terminal voltage on transmitter	10 ... 30 V DC
Nominal voltage	24 V DC
Certificates and approvals	
Classification according to pressure equipment directive (PED 2014/68/EU)	
• For 7MF8010-1... (with diaphragm seal)	For gases of fluid group 1 and liquids of fluid group 1; complies with requirements of article 4, paragraph 3 (sound engineering practice)
• For 7MF8010-2... (with inline seal)	For gases of fluid group 1 and liquids of fluid group 1; complies with the requirements of article 4, paragraph 1 (annex 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 EEx ib IIC T6

¹⁾ The zero-point error specified for the process connection should be considered as a guide value for a standard design. We will make a detailed system calculation on request. Systems with reduced remote seal error are available on request.

Dimensional drawings



SITRANS P Compact, dimensions in mm (inch)

Process connections

Quick-release diaphragm seals

Dairy connection according to DIN 11851 with slotted union nut

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

Dairy connection according to DIN 11851 with screwed connector

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

SMS standard with union nut

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

SMS standard with threaded socket

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

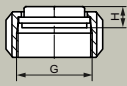
Pressure measurement

Pressure transmitters

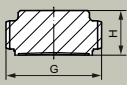
Single-range transmitters / SITRANS P Compact

Dimensional drawings (continued)

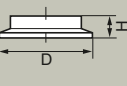
IDF standard with union nut

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

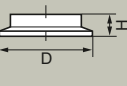
IDF standard with screwed connector

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

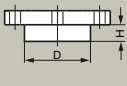
Clamp connection according to DIN 32676

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

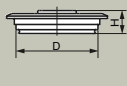
Clamp connection according to ISO 2852

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

DRD flange without welded flange

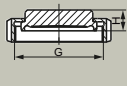
	DN	PN	H mm (inch)	D mm (inches)
	50	40	16.7 (0.66)	65.5 (2.58)

Varivent connection

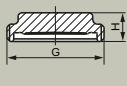
	DN	PN	H mm (inch)	D mm (inches)
	25	25	19 (0.75)	50 (1.97)
	40 ... 125	25/10	19 (0.75)	68 (2.68)

Diaphragm seal with aseptic connection

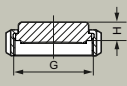
Aseptic screw gland according to DIN 11864-1, form A, with slotted union nut

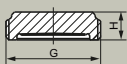
	DN	PN	H mm (inch)	D mm (inches)
	1 inch	40	20 (0.79)	Radius 52 x 1/6 inch
	1½ inches	40	20 (0.79)	Radius 58 x 1/6 inch
	2 inches	25	20 (0.79)	Radius 65 x 1/6 inch
	2½ inches	25	20 (0.79)	Radius 78 x 1/6 inch

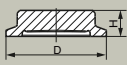
Aseptic screw gland according to DIN 11864-1, form A, with screwed connector

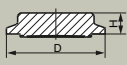
	DN	PN	H mm (inch)	D mm (inches)
	1 inch	40	15 (0.59)	Radius 52 x 1/6 inch
	1½ inches	40	15 (0.59)	Radius 58 x 1/6 inch
	2 inches	25	15 (0.59)	Radius 65 x 1/6 inch
	2½ inches	25	15 (0.59)	Radius 78 x 1/6 inch

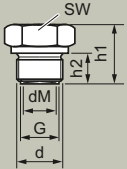
Dimensional drawings (continued)

NEUMO BioConnect aseptic screw gland with slotted union nut					
	DN	PN	H mm (inch)	D mm (inches)	
	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	

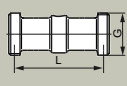
NEUMO BioConnect aseptic screw gland with screwed connector					
	DN	PN	H mm (inch)	D mm (inches)	
	25	16	20 (0.79)	M 42 x 2	
	32	16	20 (0.79)	M 52 x 2	
	40	16	20 (0.79)	M 56 x 2	
	50	16	20 (0.79)	M 68 x 2	

NEUMO BioConnect aseptic clamp connection, form R					
	DN	PN	H mm (inch)	D mm (inches)	
	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)	

NEUMO BioConnect aseptic clamp connection, form V					
	DN	PN	H mm (inch)	D mm (inches)	
	25	40	15 (0.59)	50.5 (2)	
	32	40	15 (0.59)	50.5 (2)	
	40	40	20 (0.79)	64 (2.52)	
	50	25	20 (0.79)	77.4 (3.05)	

Connecting socket for screw-in thread according to DIN 3852, form A						
	G	d mm (inches)	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)

Inline seal (screw gland at each end) with quick-release clamps

Dairy connection according to DIN 11851 with screwed connector					
	DN	PN	L mm (inch)	G	
	25	40	110 (4.33)	Radius 52 x 1/6 inch	
	32	40	110 (4.33)	Radius 58 x 1/6 inch	
	40	40	110 (4.33)	Radius 65 x 1/6 inch	
	50	25	110 (4.33)	Radius 78 x 1/6 inch	
	65	25	110 (4.33)	Radius 95 x 1/6 inch	

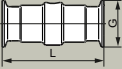
Pressure measurement

Pressure transmitters


Single-range transmitters / SITRANS P Compact

Dimensional drawings (continued)

Clamp connection according to DIN 32676

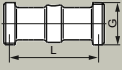
	DN	PN	L mm (inch)	D mm (inches)
	25	16	110 (4.33)	50.5 (2)
	32	16	110 (4.33)	50.5 (2)
	40	16	110 (4.33)	50.5 (2)
	50	16	110 (4.33)	64 (2.52)
	65	10	110 (4.33)	91 (3.58)

Clamp connection according to ISO 2852

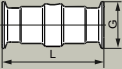
	DN	PN	L mm (inch)	D mm (inches)
	1 inch	16	110 (4.33)	50.5 (2)
	1½ inches	16	110 (4.33)	50.5 (2)
	2 inches	16	110 (4.33)	64 (2.52)
	2½ inches	16	110 (4.33)	91 (3.58)

Inline seals with aseptic connection

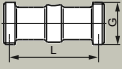
Aseptic screwed gland according to DIN 11864-1, form A, with screwed connector

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

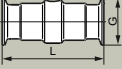
NEUMO BioConnect aseptic screwed gland with screwed connector

	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

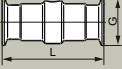
SÜDMO aseptic screwed gland with W 501 screwed connector

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

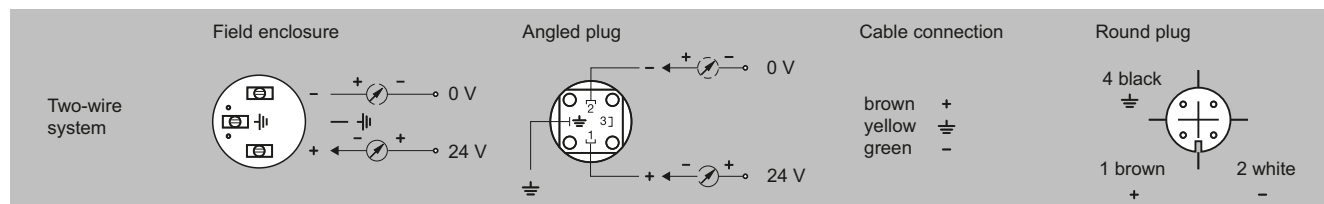
NEUMO BioConnect aseptic screwed gland clamp connection, form R

	DN	PN	L mm (inch)	D mm (inches)
	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)

SÜDMO aseptic screwed gland with W 601 screwed connector

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

Circuit diagrams



SITRANS P Compact, connection diagram