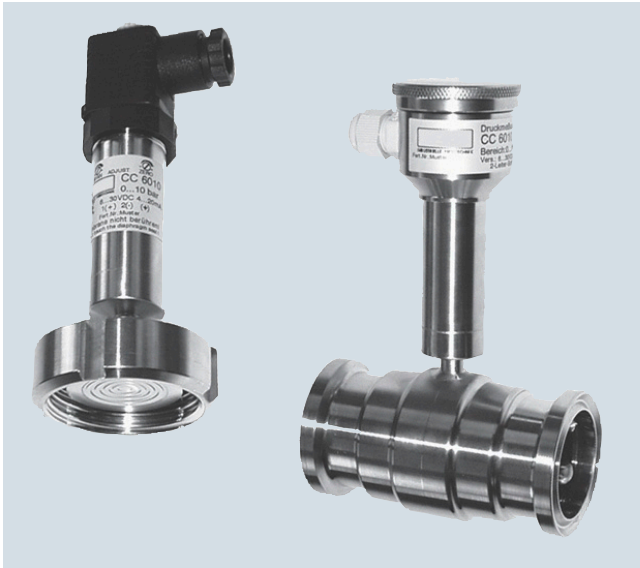


**Overview**

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. 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 °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 including hysteresis < +0.2 % of full-scale value
- Piezo-resistive measurement system, vacuum-proof and over-load-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 °C (392 °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.

## Pressure Measurement

### Single-range transmitters for general applications

#### SITRANS P Compact for gauge and absolute pressure

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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)  
 • 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  
 Vacuum-resistant  
 0 mbar (0 psi) absolute at max. 50 °C. Higher process temperatures on request.  
 • 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  $\approx 460$  G ( $\approx 1.01$  lb)  
 • Enclosure with plug  $\approx 200$  g ( $\approx 0.44$  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 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 clamp-on seal) For gases of fluid group 1 and liquids of fluid group 1; complies with the requirements of article 4, paragraph 1 (appendix 1); assigned to category III, conformity evaluation module H by the TÜV Nord  
 Explosion protection  
 • Intrinsic safety "i"  
 - Marking TÜV 03 ATEX 2099 X  
 Ex II 2G Ex ib IIC T6

## Pressure Measurement

### Single-range transmitters for general applications

#### SITRANS P Compact for gauge and absolute pressure

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Selection and Ordering data	Article No.	Ord. code	Selection and Ordering data	Article No.	Ord. code
<b>SITRANS P Compact pressure transmitters for pressure and absolute pressure with diaphragm flush at front</b> 2-wire system Process temperature up to 140 °C (284 °F) Accuracy: 0.2 % of full-scale value Output 4 ... 20 mA  ↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.	7MF8010-		<b>SITRANS P Compact pressure transmitters for pressure and absolute pressure with diaphragm flush at front</b> 2-wire system Process temperature up to 140 °C (284 °F) Accuracy: 0.2 % of full-scale value Output 4 ... 20 mA	7MF8010-	
<b>Diaphragm seal with quick-release clamp</b> Milk pipe union to DIN 11851 with slotted union nut <ul style="list-style-type: none"> <li>• DN 25</li> <li>• DN 32</li> <li>• DN 40</li> <li>• DN 50</li> <li>• DN 65</li> </ul> Milk pipe union to DIN 11851 with threaded socket <ul style="list-style-type: none"> <li>• DN 25</li> <li>• DN 32</li> <li>• DN 40</li> <li>• DN 50</li> <li>• DN 65</li> </ul> Clamp connection to DIN 32676 <ul style="list-style-type: none"> <li>• DN 25</li> <li>• DN 40</li> <li>• DN 50</li> </ul> Clamp connection to ISO 2852 <ul style="list-style-type: none"> <li>• 1 inch</li> <li>• 1½ inch</li> <li>• 2 inch</li> <li>• 2½ inch</li> </ul> IDF standard with slotted union nut <ul style="list-style-type: none"> <li>• 1 inch</li> <li>• 1½ inch</li> <li>• 2 inch</li> </ul> IDF standard with threaded socket <ul style="list-style-type: none"> <li>• 1 inch</li> <li>• 1½ inch</li> <li>• 2 inch</li> </ul> SMS standard with slotted union nut <ul style="list-style-type: none"> <li>• 1 inch</li> <li>• 1½ inch</li> <li>• 2 inch</li> </ul> SMS standard with threaded socket <ul style="list-style-type: none"> <li>• 1 inch</li> <li>• 1½ inch</li> <li>• 2 inch</li> </ul> DRD flange, without welding-type flange <ul style="list-style-type: none"> <li>• DN 50, PN 40</li> </ul> Varivent connection (Tuchenhausen) <ul style="list-style-type: none"> <li>• D = 50, for Varivent housing DN 25 and 1 inch</li> <li>• D = 68, for Varivent housing DN 40 ... DN 125 and 1½ ... 6 inch</li> </ul> Special version (add Order code and plain text)	1 AD AE AF AG AH BD BE BF BG BH CD CF CG DM DN DP DQ EM EN EP FM FN FP GM GN GP HM HN HP JH KF KL ZA	J 1 Y M 1 Y	<b>Diaphragm seal with aseptic connection</b> Aseptic screwed gland to DIN 11864-1, form A, with slotted union nut <ul style="list-style-type: none"> <li>• 1 inch</li> <li>• 1½ inch</li> <li>• 2 inch</li> <li>• 2½ inch</li> </ul> Aseptic screwed gland to DIN 11864-1, form A with threaded socket <ul style="list-style-type: none"> <li>• 1 inch</li> <li>• 1½ inch</li> <li>• 2 inch</li> <li>• 2½ inch</li> </ul> Aseptic screwed NEUMO with slotted union nut <sup>1)</sup> <ul style="list-style-type: none"> <li>• DN 25</li> <li>• DN 32</li> <li>• DN 40</li> <li>• DN 50</li> </ul> Aseptic screwed NEUMO with threaded socket <sup>1)</sup> <ul style="list-style-type: none"> <li>• DN 25</li> <li>• DN 32</li> <li>• DN 40</li> <li>• DN 50</li> </ul> Aseptic screwed NEUMO with clamp connection, form R <sup>1)</sup> <ul style="list-style-type: none"> <li>• DN 25</li> <li>• DN 32</li> <li>• DN 40</li> <li>• DN 50</li> </ul> Aseptic screwed NEUMO with clamp connection, form V <sup>1)</sup> <ul style="list-style-type: none"> <li>• DN 25</li> <li>• DN 32</li> <li>• DN 40</li> <li>• DN 50</li> </ul> Male thread DIN 3852 Form A <ul style="list-style-type: none"> <li>• G½", min. meas. span 1.6 bar (23.2 psi)</li> <li>• G¾", min. meas. span 1 bar (14.5 psi)</li> <li>• G1", min. meas. span 0.4 bar (5.8 psi)</li> <li>• G1½", min. meas. span 0.25 bar (3.63 psi)</li> <li>• G2", min. meas. span 0.16 bar (2.32 psi)</li> </ul> Special version (add Order code and plain text)	1 PM PN PP PQ QM QN QP QQ RD RE RF RG SD SE SF SG TD TE TF TG UD UE UF UG XA XB XC XD XE ZA	J 1 Y L 1 Y M 1 Y
<b>Filling liquid</b> Food oil, FDA-listed Medicinal white oil Special version (add Order code and plain text)	3 2 9	L 1 Y	<b>Filling liquid</b> Food oil, FDA-listed Medicinal white oil Special version (add Order code and plain text)	3 2 9	L 1 Y
<b>Output signal</b> 4 ... 20 mA Special version (add Order code and plain text)	1 9	M 1 Y	<b>Output signal</b> 4 ... 20 mA Special version (add Order code and plain text)	1 9	M 1 Y

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

## Pressure Measurement

Single-range transmitters for general applications

### SITRANS P Compact for gauge and absolute pressure

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Selection and Ordering data		Article No.	Ord. code	Selection and Ordering data		Article No.	Ord. code
<b>SITRANS P Compact pressure transmitters for pressure and absolute pressure with diaphragm flush at front</b>		7MF8010-		<b>SITRANS P Compact pressure transmitters for pressure and absolute pressure with diaphragm flush at front</b>		7MF8010-	
2-wire system Process temperature up to 140 °C (284 °F) Accuracy: 0.2 % of full-scale value Output 4 ... 20 mA				2-wire system Process temperature up to 140 °C (284 °F) Accuracy: 0.2 % of full-scale value Output 4 ... 20 mA			
<b>Housing design (stainless steel mat. No. 1.4404/316L) / electr. connection</b>				<b>Measured range</b>			
Housing with angled plug to DIN 43650, IP65			1	(continued)			
Housing with round plug M12, IP65, union nut made of polyamide			2	-1 ... +9 bar (-14.5 ... +130.5 psi)			GA
Housing with round plug M12, IP65, union nut made of stainless steel			3	-1 ... +15 bar (-14.5 ... +217.6 psi)			GB
Stainless steel field housing (small) with cable gland, IP65			4	0 ... 1 bar a (0 ... 14.5 psia)			HA
Stainless steel field housing (small) with cable gland, IP67			5	0 ... 1.6 bar a (0 ... 23.2 psia)			HB
Internal ventilation for measuring ranges < 16 bar (< 232 psi)				0 ... 2.5 bar a (0 ... 36.3 psia)			HC
<b>Measured range</b>				0 ... 4 bar a (0 ... 58 psia)			HD
<b>Overload pressure</b>				0 ... 6 bar a (0 ... 87 psia)			HE
0 ... 160 mbar (0 ... 2.32 psi)	2 bar (29 psi)		BB	0 ... 10 bar a (0 ... 145 psia)			JA
0 ... 250 mbar (0 ... 3.63 psi)	2 bar (29 psi)		BC	Special version (add Order code and plain text)			ZA
0 ... 400 mbar (0 ... 5.8 psi)	6 bar (87 psi)		BD	<b>Explosion protection</b>			P 1 Y
0 ... 600 mbar (0 ... 8.7 psi)	6 bar (87 psi)		BE	without			1
0 ... 1 bar (0 ... 14.5 psi)	10 bar (145 psi)		CA	with, to ATEX 100a, II 2 G, Ex ib IIC T6			2
0 ... 1.6 bar (0 ... 23.2 psi)	10 bar (145 psi)		CB	<b>Further designs</b>			Order code
0 ... 2.5 bar (0 ... 36.3 psi)	16 bar (232 psi)		CC	Please add "-Z" to Article No. and specify Order code			
0 ... 4 bar (0 ... 58 psi)	16 bar (232 psi)		CD	<b>Hygiene version</b>			P01
0 ... 6 bar (0 ... 87 psi)	30 bar (435 psi)		CE	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)			
0 ... 10 bar (0 ... 145 psi)	30 bar (435 psi)		DA	<b>Integral cooling element</b>			K01
0 ... 16 bar (0 ... 232 psi)	50 bar (725 psi)		DB	Process temperature max. 200 °C (392 °F) instead of 140 °C (284 °F)			
0 ... 25 bar (0 ... 363 psi)	50 bar (725 psi)		DC	<b>Connections for pipe</b>			R01
0 ... 40 bar (0 ... 580 psi)	70 bar (1015 psi)		DD	Pipes to DIN 11850 ISO pipes to DIN 2463 Pipes to O. D. Tubing "BS 4825 Part 1"			R02 R03
-160 ... 0 mbar (-2.32 ... 0 psi)	2 bar (29 psi)		EB	<b>Certificates</b>			C11
-250 ... 0 bar (-3.73 ... 0 psi)	2 bar (29 psi)		EC	Quality Inspection Certificate (5-point characteristic curve test) according to IEC 60770-2			
-400 ... 0 bar (-5.8 ... 0 psi)	6 bar (87 psi)		ED	Inspection certificate to EN 10204-3.1			C12
-600 ... 0 bar (-8.7 ... 0 psi)	6 bar (87 psi)		EE	Use of FDA-listed remote seal filling liquids certified by test report to EN 10204-2.2			C17
-1 ... 0 bar (-14.5 ... 0 psi)	10 bar (145 psi)		FA	Roughness depth measurement $R_a$ certified by test report to EN 10204-3.1			C18
-1 ... 0.6 bar (-14.5 ... 8.7 psi)	10 bar (145 psi)		FB	Certification to EHEDG for clamp-on seals with aseptic screwed gland to DIN 11864			C19
-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	Article No.	Ord. code	Selection and Ordering data	Article No.	Ord. code
<b>SITRANS P Compact pressure transmitters for pressure and absolute pressure with clamp-on remote seal</b>	7MF8010-		<b>SITRANS P Compact pressure transmitters for pressure and absolute pressure with clamp-on remote seal</b>	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	
Click on the Article No. for the online configuration in the PIA Life Cycle Portal.					
<b>Clamp-on remote seal (screwed gland at both ends) with quick-release clamps</b>			<b>Clamp-on seal with aseptic connection</b>		
Milk pipe union to DIN 11851 with threaded socket			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 <sup>1)</sup>		
• 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 <sup>1)</sup>		
• DN 65	CH		• DN 25	TD	
Clamp connection to ISO 2852 <sup>1)</sup>			• 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	
			• 2 inch	VP	
<b>Filling liquid</b>			Aseptic screwed gland SÜDMO with clamp connection W 601		
Food oil, FDA-listed	3		• 1 inch	WM	
Medicinal white oil	2		• 1½ inch	WN	
Special version (add Order code and plain text)	9	L 1 Y	• 2 inch	WP	
			Special version (add Order code and plain text)	ZA	J 1 Y
<b>Output signal</b>			<b>Filling liquid</b>		
4 ... 20 mA	1		Food oil, FDA-listed	3	
Special version (add Order code and plain text)	9	M 1 Y	Medicinal white oil	2	
			Special version (add Order code and plain text)	9	L 1 Y
			<b>Output signal</b>		
			4 ... 20 mA	1	
			Special version (add Order code and plain text)	9	M 1 Y

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

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

## Pressure Measurement

### Single-range transmitters for general applications

#### SITRANS P Compact for gauge and absolute pressure

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Selection and Ordering data		Article No.	Ord. code	Selection and Ordering data		Article No.	Ord. code
<b>SITRANS P Compact pressure transmitters for pressure and absolute pressure with clamp-on remote seal</b>		7 MF 8 0 1 0 -		<b>SITRANS P Compact pressure transmitters for pressure and absolute pressure with clamp-on remote seal</b>		7 MF 8 0 1 0 -	
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	
<b>Housing design (stainless steel mat. No. 1.4404/316L) / electr. connection</b>				<b>Measured range    Overload pressure</b> (continued)			
Housing with angled plug to DIN 43650, IP65, union nut made of polyamide		1		-1 ... 9 bar (-14.5 ... 130.5 psi)	30 bar (435 psi)	GA	
Housing with round plug M12, IP65, union nut made of polyamide		2		-1 ... 15 bar (-14.5 ... 217.6 psi)	50 bar (725 psi)	GB	
Housing with round plug M12, IP65, union nut made of stainless steel		3		0 ... 1 bar a (0 ... 14.5 psia)	10 bar a (145 psia)	HA	
Stainless steel field housing (small) with cable gland, IP65		4		0 ... 1.6 bar a (0 ... 23.2 psia)	10 bar a (145 psia)	HB	
Stainless steel field housing (small) with cable gland, IP67 Internal ventilation for measuring ranges < 16 bar (< 232 psi)		5		0 ... 2.5 bar a (0 ... 36.3 psia)	16 bar a (232 psia)	HC	
<b>Measured range    Overload pressure</b>				0 ... 4 bar a (0 ... 58 psia)	16 bar a (232 psia)	HD	
0 ... 160 mbar (0 ... 2.32 psi)	2 bar (29 psi)	BB		0 ... 6 bar a (0 ... 87 psia)	30 bar a (435 psi)	HE	
0 ... 250 mbar (0 ... 3.63 psi)	2 bar (29 psi)	BC		0 ... 10 bar a (0 ... 145 psia)	30 bar a (435 psi)	JA	
0 ... 400 mbar (0 ... 5.8 psi)	6 bar (87 psi)	BD		Special version (add Order code and plain text)		ZA	P 1 Y
0 ... 600 mbar (0 ... 8.7 psi)	6 bar (87 psi)	BE		<b>Explosion protection</b>			
0 ... 1 bar (0 ... 14.5 psi)	10 bar (145 psi)	CA		without			1
0 ... 1.6 bar (0 ... 23.2 psi)	10 bar (145 psi)	CB		with, to ATEX 100a, II 2 G, Ex ib IIC T6			2
0 ... 2.5 bar (0 ... 36.3 psi)	16 bar (232 psi)	CC		<b>Further designs</b>		Order code	
0 ... 4 bar (0 ... 58 psi)	16 bar (232 psi)	CD		Please add "-Z" to Article No. and specify Order code			
0 ... 6 bar (0 ... 87 psi)	30 bar (435 psi)	CE		<b>Hygiene version</b>		P01	
0 ... 10 bar (0 ... 145 psi)	30 bar (435 psi)	DA		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)			
0 ... 16 bar (0 ... 232 psi)	50 bar (725 psi)	DB		<b>Integral cooling element</b>		K01	
0 ... 25 bar (0 ... 363 psi)	50 bar (725 psi)	DC		Process temperature max. 200 °C (392 °F) instead of 140 °C (284 °F)			
0 ... 40 bar (0 ... 580 psi)	70 bar (1015 psi)	DD		<b>Connections for pipe</b>		R01	
-160 ... 0 mbar (-2.32 ... 0 psi)	2 bar (29 psi)	EB		Pipes to DIN 11850		R02	
-250 ... 0 bar (-3.73 ... 0 psi)	2 bar (29 psi)	EC		ISO pipes to ISO 2463		R03	
-400 ... 0 bar (-5.8 ... 0 psi)	6 bar (87 psi)	ED		Pipes to O. D. Tubing "BS 4825 Part 1"			
-600 ... 0 bar (-8.7 ... 0 psi)	6 bar (87 psi)	EE		<b>Certificates</b>			
-1 ... 0 bar (-14.5 ... 0 psi)	10 bar (145 psi)	FA		Quality Inspection Certificate (5-point characteristic curve test) according to IEC 60770-2		C11	
-1 ... 0.6 bar (-14.5 ... 8.7 psi)	10 bar (145 psi)	FB		Inspection certificate to EN 10204-3.1 Use of FDA-listed remote seal filling liquids certified by test report to EN 10204-2.2		C12	C17
-1 ... 1.5 bar (-14.5 ... 21.8 psi)	16 bar (232 psi)	FC		Roughness depth measurement $R_a$ certified by test report to EN 10204-3.1		C18	
-1 ... 3 bar (-14.5 ... 43.5 psi)	16 bar (232 psi)	FD		Certification to EHEDG for clamp-on seals with aseptic screwed gland to DIN 11864		C19	
-1 ... 5 bar (-14.5 ... 72.5 psi)	30 bar (435 psi)	FE					



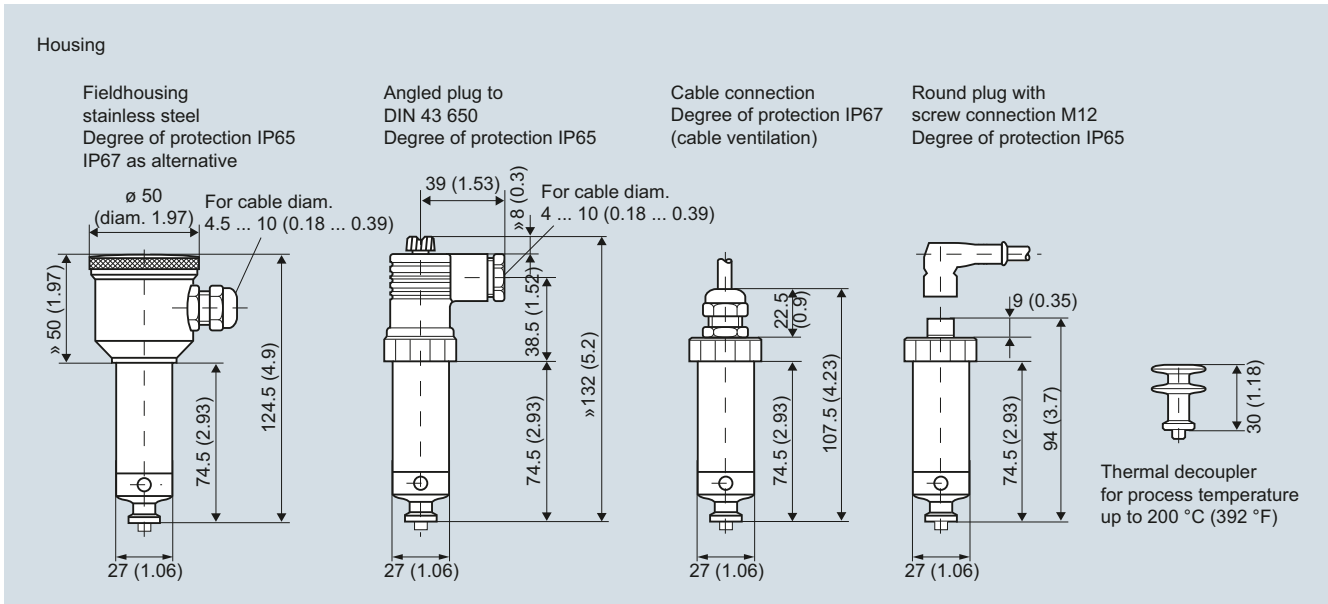
# Pressure Measurement

## Single-range transmitters for general applications

### SITRANS P Compact for gauge and absolute pressure

1

#### Dimensional drawings

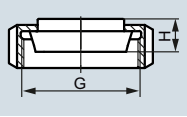


SITRANS P Compact, dimensions in mm (inch)

#### Process connections

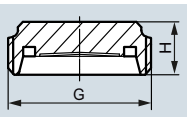
##### Diaphragm seal with quick-release clamp

**Milk pipe union to DIN 11851 with slotted union nut**



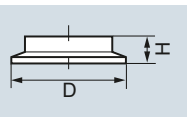
DN	PN	H mm (inch)	G
25	40	24 (0.95)	Rd. 52 x 1/6"
32	40	24 (0.95)	Rd. 58 x 1/6"
40	40	24 (0.95)	Rd. 65 x 1/6"
50	25	25.1 (0.99)	Rd. 78 x 1/6"
65	25	28.6 (1.13)	Rd. 95 x 1/6"

**Milk pipe union to DIN 11851 with threaded socket**



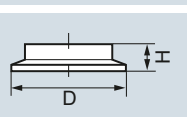
DN	PN	H mm (inch)	G
25	40	-	Rd. 52 x 1/6"
32	40	20 (0.79)	Rd. 58 x 1/6"
40	40	20 (0.79)	Rd. 65 x 1/6"
50	25	20 (0.79)	Rd. 78 x 1/6"
65	25	22 (0.87)	Rd. 95 x 1/6"

**Clamp connection to DIN 32676**



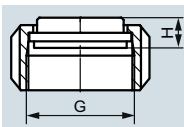
DN	PN	H mm (inch)	D mm (inch)
25	16	14 (0.55)	50.5 (2)
40	16	14 (0.55)	50.5 (2)
50	16	14 (0.55)	64 (2.52)

**Clamp connection to ISO 2852**



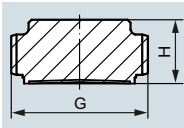
DN	PN	H mm (inch)	D mm (inch)
1"	16	14 (0.55)	50.5 (2)
1½"	16	12 (0.47)	50.5 (2)
2"	16	14 (0.55)	64 (2.52)
2½"	16	14 (0.55)	77.5 (3.05)

##### IDF standard with slotted union nut



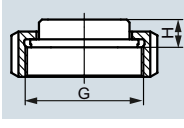
DN	PN	H mm (inch)	G inch (IDF thread)
1"	40	21 (0.83)	1"
1½"	40	13.5 (0.53)	1½"
2"	25	15 (0.59)	2"

##### IDF standard with threaded socket



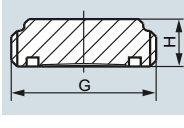
DN	PN	H mm (inch)	G inch (IDF thread)
1"	40	21 (0.83)	1"
1½"	40	13.5 (0.53)	1½"
2"	25	15 (0.59)	2"

##### SMS standard with slotted union nut



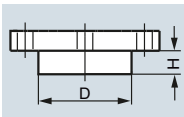
DN	PN	H mm (inch)	G
1"	40	16 (0.63)	Rd 40 x 1.6"
1½"	40	16 (0.63)	Rd 60 x 1.6"
2"	25	16 (0.63)	Rd 70 x 1.6"

##### 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



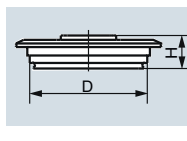
DN	PN	H mm (inch)	D mm (inch)
50	40	16.7 (0.66)	65.5 (2.58)

## Pressure Measurement

Single-range transmitters for general applications

### SITRANS P Compact for gauge and absolute pressure

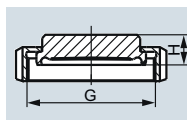
#### Varivent connection



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)

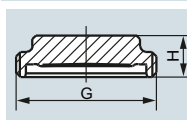
Diaphragm seal with aseptic connection

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



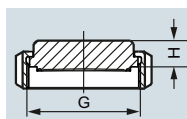
DN	PN	H mm (inch)	G
1"	40	20 (0.79)	Rd 52 x 1/6"
1½"	40	20 (0.79)	Rd 58 x 1/6"
2"	25	20 (0.79)	Rd 65 x 1/6"
2½"	25	20 (0.79)	Rd 78 x 1/6"

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



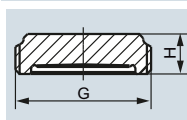
DN	PN	H mm (inch)	G
1"	40	15 (0.59)	Rd 52 x 1/6"
1½"	40	15 (0.59)	Rd 58 x 1/6"
2"	25	15 (0.59)	Rd 65 x 1/6"
2½"	25	15 (0.59)	Rd 78 x 1/6"

#### Aseptic screwed NEUMO BioConnect with slotted union nut



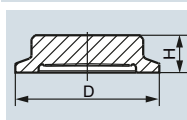
DN	PN	H mm (inch)	G
25	16	15 (0.59)	M 42 x 2
32	16	15 (0.59)	M 52 x 2
40	16	15 (0.59)	M 56 x 2
50	16	15 (0.59)	M 68 x 2

#### Aseptic screwed NEUMO BioConnect with threaded socket



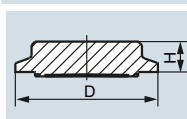
DN	PN	H mm (inch)	G
25	16	20 (0.79)	M 42 x 2
32	16	20 (0.79)	M 52 x 2
40	16	20 (0.79)	M 56 x 2
50	16	20 (0.79)	M 68 x 2

#### Aseptic screwed NEUMO BioConnect with clamp connection, form R



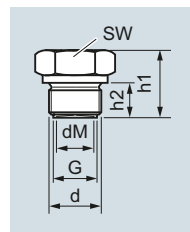
DN	PN	H mm (inch)	D mm (inch)
25	40	20 (0.79)	50.5 (2)
32	40	20 (0.79)	50.5 (2)
40	40	20 (0.79)	64 (2.52)
50	25	20 (0.79)	77.4 (3.05)

#### 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)

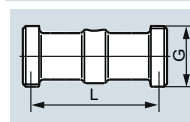
#### Male thread DIN 3852, form A



G	d mm (inch)	d <sub>M</sub> mm (inch)	h <sub>1</sub> mm (inch)	h <sub>2</sub> 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)

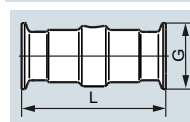
Clamp-on remote seal (screwed gland at both ends) with quick-release clamps

#### Milk pipe union to DIN 11851 with threaded socket



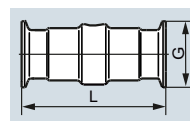
DN	PN	L mm (inch)	G
25	40	110 (4.33)	Rd 52 x 1/6"
32	40	110 (4.33)	Rd 58 x 1/6"
40	40	110 (4.33)	Rd 65 x 1/6"
50	25	110 (4.33)	Rd 78 x 1/6"
65	25	110 (4.33)	Rd 95 x 1/6"

#### 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)

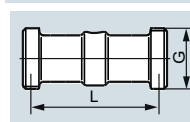
#### Clamp connection to ISO 2852



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)

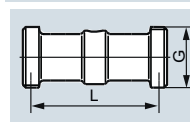
Clamp-on seal with aseptic connection

#### 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



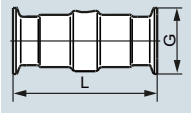
## Pressure Measurement

### Single-range transmitters for general applications

#### SITRANS P Compact for gauge and absolute pressure

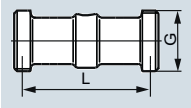
1

##### Aseptic screwed NEUMO BioConnect with clamp connection, form R



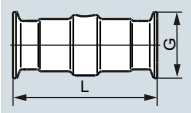
DN	PN	L mm (inch)	D mm (inch)
25	16	110 (4.33)	50.4 (2)
32	16	110 (4.33)	50.4 (2)
40	16	110 (4.33)	64 (2.52)
50	16	110 (4.33)	77.4 (3.05)

##### Aseptic screwed gland SÜDMO with threaded socket W 501



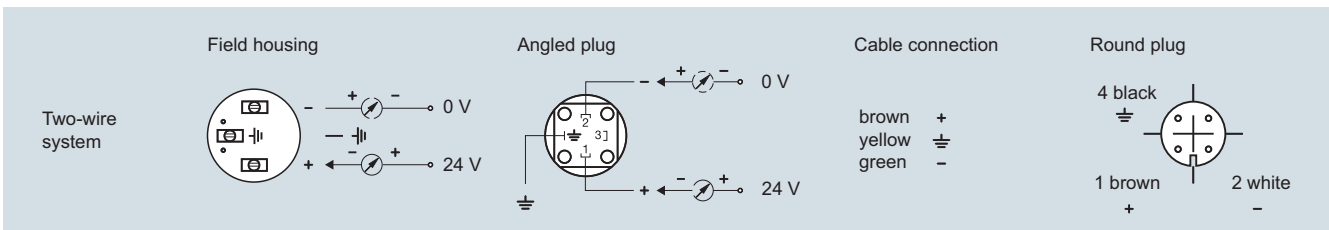
DN	PN	L mm (inch)	G
1"	25	110 (4.33)	Rd 44 x 1/6"
1½"	25	110 (4.33)	Rd 58 x 1/6"
2"	20	110 (4.33)	Rd 78 x 1/6"

##### 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