## Pressure transmitters Single-range transmitters for general applications

### SITRANS P Compact for gauge and absolute pressure

#### 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  $^\circ C$  (392  $^\circ F$ ).

#### 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 °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.

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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, ph	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	$\leq$ $\pm0.2$ % 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						
<ul> <li>Measuring span</li> </ul>	< 0.2 %/10 K of full-scale value						
On the process connection (remote seals)	Zero error (depends on design)						
<ul> <li>Flange remote seal</li> </ul>							
- 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 / 11/2"	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.

SITRANS P Compact for g	auge and absolute pressure
Rated conditions	
Installation conditions	
<ul> <li>Mounting position</li> </ul>	Any, vertical as standard
Ambient conditions	
<ul> <li>Ambient temperature</li> </ul>	-10 +70 °C (14 158 °F)
<ul> <li>Storage temperature</li> </ul>	-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 tempera- tures on request.
<ul><li>Degree of protection (to EN 60529)</li><li>Electromagnetic Compatibility</li></ul>	IP65, optional IP67
- 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	<ul> <li>Field housing IP65 or IP67, with screwed gland</li> </ul>
	Angled plug DIN 43650, IP65
	Cable connection, IP67
	Device plug M12, IP65
Material	Stainless steel, mat. no. 1.4404/316L/1.4305
Material of union nut	Polyamide (with electrical con- nection using plug or cable)
	Electronics unit potted with silicone Internal ventilation for measuring ranges < 16 bar (< 232 psi), through housing thread or con- nection cable depending on design
Process connection	
Versions	See ordering data
<ul> <li>Material of coupling</li> </ul>	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 liq- uids of fluid group 1; complies with the requirements of article 4, paragraph 1 (appendix 1); assigned to category III, confor- mity 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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SITRANS P Compact pressure trans-	7 M F 8 0 1 0 -		SITRANS P Compact pressure trans-	7MF8010-	
mitters for pressure and absolute pressure with diaphragm flush at front			mitters for pressure and absolute pressure with diaphragm flush at front		
2-wire system	10000-000		2-wire system	1	
Process temperature up to 140 °C (284 °F)			Process temperature up to 140 °C (284 °F)		
Accuracy: 0.2 % of full-scale value			Accuracy: 0.2 % of full-scale value		
Output 4 20 mA			Output 4 20 mA	_	
Click on the Article No. for the online configuration in the PIA Life Cycle			Diaphragm seal with aseptic connection		
Portal.			Aseptic screwed gland to DIN 11864-1,		
Diaphragm seal			form A, with slotted union nut		
with quick-release clamp			<ul> <li>1 inch</li> <li>1½ inch</li> </ul>	PM PN	
Milk pipe union to DIN 11851 with slotted union nut			• 2 inch	PP	
• DN 25	A D		• 2½ inch	PQ	
• DN 32	AE		Aseptic screwed gland to		
• DN 40	AF		DIN 11864-1, form A with threaded socket		
• DN 50 • DN 65	A G A H		• 1 inch	QM	
Milk pipe union to DIN 11851 with	A11		• 1½ inch	QN	
threaded socket			• 2 inch	QP	
• DN 25	BD		• 2½ inch	QQ	
• DN 32 • DN 40	BEBF		Aseptic screwed NEUMO with slotted union nut <sup>1)</sup>		
• DN 50	BG		• DN 25	RD	
• DN 65	BH		• DN 32	RE	
Clamp connection to DIN 32676			• DN 40	RF	
• DN 25	CD		DN 50     Aseptic screwed NEUMO	RG	
• DN 40 • DN 50	C F C G		with threaded socket <sup>1)</sup>		
Clamp connection to ISO 2852	CG		• DN 25	SD	
• 1 inch	DM		• DN 32	SE	
• 1½ inch	DN		• DN 40 • DN 50	S F S G	
• 2 inch	DP		Aseptic screwed NEUMO	30	
• 2½ inch	DQ		with clamp connection, form R <sup>1)</sup>		
IDF standard with slotted union nut • 1 inch	ЕМ		• DN 25	TD	
• 1½ inch	EN		• DN 32 • DN 40	TE TF	
• 2 inch	EP		• DN 40 • DN 50	TG	
IDF standard with threaded socket			Aseptic screwed NEUMO		
• 1 inch	FM		with clamp connection, form V <sup>1)</sup>		
<ul> <li>1½ inch</li> <li>2 inch</li> </ul>	F N F P		• DN 25	UDUE	
SMS standard with slotted union nut			• DN 32 • DN 40	UF	
• 1 inch	GM		• DN 50	UG	
• 1½ inch	GN		Male thread DIN 3852 Form A		
• 2 inch	G P		• G½", min. meas. span 1.6 bar (23.2 psi)	XA	
SMS standard with threaded socket <ul> <li>1 inch</li> </ul>	нм		• G¾", min. meas. span 1 bar (14.5 psi)	XB	
• 1½ inch	HN		<ul> <li>G1", min. meas. span 0.4 bar (5.8 psi)</li> <li>G1<sup>1</sup>/<sub>2</sub>", min. meas. span 0.25 bar</li> </ul>	X C X D	
• 2 inch	HP		(3.63 psi)		
DRD flange, without welding-type flange			• G2", min. meas. span 0.16 bar	XE	
• DN 50, PN 40 Varivent connection (Tuchenhagen)	JH		(2.32 psi) Special version	ZA	J1Y
• $D = 50$ , for Varivent housing DN 25 and	KF		(add Order code and plain text)	-	
1 inch			Filling liquid		
• D = 68, for Varivent housing	KL		Food oil, FDA-listed	3	
DN 40 DN 125 and 11/2 6 inch Special version	ZA	J1Y	Special version (add Order code and plain text)	9	L1Y
(add Order code and plain text)			· · · · ·		
Filling liquid			Output signal 4 20 mA	1	
Food oil, FDA-listed	3		Special version	9	M1Y
Special version (add Order code and plain text)	9	L1Y	(add Order code and plain text)	3	
Output signal			1) Please specify as well:		
4 20 mA	1		Connections for pipes: R01, R02 or R03, se	e table "Further o	designs" on
Special version	9	M1Y	next page		

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	Article No.	Ord. code	Selection and Ordering data	Article No. Ord. code
SITRANS P Compact pressure mitters for pressure and absol pressure with diaphragm flush	ute		SITRANS P Compact pressure trans- mitters for pressure and absolute pressure with diaphragm flush at front	7 M F 8 0 1 0 -
2-wire system Process temperature up to 140 °C Accuracy: 0.2 % of full-scale val 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	1
Housing design (stainless stee No. 1.4404/316L) / electr. conn	ection		Measured range Overload pressure	
Housing with angled plug to DIN IP65	V 43650, <b>1</b>		(continued) -1 +9 bar 60 bar	GA
Housing with device plug M12, I union nut made of polyamide	IP65, <b>2</b>		(-14.5 +130.5 psi) (870 psi) -1 +15 bar 60 bar	GB
Housing with device plug M12, I union nut made of stainless stee	IP65, <b>3</b>		(-14.5 +217.6 psi) (870 psi) 0 1 bar a 3 bar a	НА
Stainless steel field housing (sm cable gland, IP65			(0 14.5 psi a) (43.5 psi a) 0 1.6 bar a 10 bar	нв
Stainless steel field housing (sm cable gland, IP67 Internal ventilation for measuring	·		(0 23.2 psi a) (145 psi) 0 2.5 bar a 10 bar a (0 36.3 psi a) (145 psi a) 0 4 bar a 10 bar a	нс
< 16 bar (< 232 psi)           Measured range         Overload p           0 160 mbar         1 bar	ressure		(058 psi a) (145 psi a) 06 bar a 60 bar a (087 psi a) (870 psi a)	HE
(0 2.32 psi) (14.5 psi) 0 250 mbar 1 bar	BC		0 10 bar a 60 bar a (0 145 psi a) (870 psi a)	J A
(0 3.63 psi) (14.5 psi) 0 400 mbar 3 bar (0 5.8 psi) (43.5 psi)	ВD		Special version (add Order code and plain text)	ZA P1Y
0 600 mbar 3 bar (0 8.7 psi) (43.5 psi)	BE		Explosion protection without	1
0 1 bar 3 bar (0 14.5 psi) (43.5 psi)	CA		with, to ATEX 100a, II 2 G, Ex ib IIC T6	2 Order code
0 1.6 bar 10 bar (0 23.2 psi) (145 psi)	CB		<i>Further designs</i> Please add "- <b>Z</b> " to Article No. and specify	Order code
0 2.5 bar 10 bar (0 36.3 psi) (145 psi)	cc		Order code Hygiene version	P01
0 4 bar 20 bar (0 58 psi) (290 psi)	CD	1	Roughness of process connection: Foil $R_a < 0.8 \ \mu m (3.15 \cdot 10^{-8} \ inch);$	
0 6 bar 60 bar (0 87 psi) (870 psi)	CE		Welded seams $R_a < 1.5 \mu\text{m}$ (5.9·10 <sup>-8</sup> inch)	
0 10 bar 60 bar (0 145 psi) (870 psi)	DA		Integral cooling element Process temperature max. 200 °C	K01
0 16 bar 60 bar (0 232 psi) (870 psi)	DB		(392 °F) instead of 140 °C (284 °F)	
0 25 bar 60 bar (0 363 psi) (870 psi)	DC		Connections for pipe Pipes to DIN 11850	R01
0 40 bar 100 bar (0 580 psi) (1450 psi)	D D	1	ISO pipes to DIN 2463 Pipes to O. D. Tubing "BS 4825 Part 1"	R02 R03
-160 0 mbar 1 bar (-2.32 0 psi) (14.5 psi)	EB		<b>Certificates</b> Quality Inspection Certificate (5-point	C11
-250 0 bar 1 bar (-3.73 0 psi) (14.5 psi)	EC		characteristic curve test) according to IEC 60770-2	
-400 0 bar 3 bar (-5.8 0 psi) (43.5 psi)	E D		Inspection certificate to EN 10204-3.1	C12
-600 0 bar 3 bar (-8.7 0 psi) (43.5 psi)	EE		Use of FDA-listed remote seal filling liquids certified by test report to EN 10204-2.2	C17
-1 0 bar 3 bar (-14.5 0 psi) (43.5 psi)	FA		Roughness depth measurement R <sub>a</sub> certified by test report to EN 10204-3.1	C18
-1 0.6 bar 10 bar (-14.5 8.7 psi) (145 psi) -1 1.5 bar 10 bar	F B F C		Certification to EHEDG for clamp-on seals with aseptic screwed gland	C19
(-14.5 21.8 psi) (145 psi) -1 3 bar 20 bar (14.5 43.5 psi) (200 psi)	FD		to DIN 11864	
(-14.5 43.5 psi) (290 psi) -1 5 bar 20 bar (-14.5 72.5 psi) (290 psi)	FE			

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Selection and Ordering data	Article No.	Ord. code	Selection and Ordering data	Article No.	Ord. cod
SITRANS P Compact pressure trans- mitters for pressure and absolute pressure with clamp-on remote seal	7 M F 8 0 1 0 -		SITRANS P Compact pressure trans- mitters for pressure and absolute pressure with clamp-on remote seal	7 M F 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	
Click on the Article No. for the online configuration in the PIA Life Cycle Portal.			Clamp-on seal with aseptic connection Aseptic screwed gland to		
Clamp-on remote seal (screwed gland			DIN 11864-1, form A with threaded socket		
at both ends) with quick-release clamps			• 1 inch	QM	
Milk pipe union to DIN 11851 with			• 1½ inch	QN	
threaded socket			• 2 inch	QP	
• DN 25	AD		Aseptic screwed NEUMO	u.	
• DN 32	AE		with threaded socket <sup>1)</sup>		
• DN 40	AF		• DN 25	SD	
• DN 50	AG		• DN 32	SE	
• DN 65	AH		• DN 40	SF	
Clamp connection to DIN 32676			• DN 50	SG	
• DN 25	CD		• DN 65	SH	
• DN 32	CE		Aseptic screwed NEUMO		
• DN 40	CF		with clamp connection, form R <sup>1)</sup>		
• DN 50	CG		• DN 25	TD	
• DN 65	СН		• DN 32	TE	
Clamp connection to ISO 2852 <sup>1)</sup>			• DN 40	TF	
• 1 inch	DM		• DN 50	TG	
• 1½ inch	DN		Aseptic screwed gland SÜDMO		
• 2 inch	DP		with threaded socket W 501 <sup>1)</sup>		
• 21/2 inch	DQ		• 1 inch	VM	
Special version	ZA	J1Y	• 1½ inch	VN	
(add Order code and plain text)			• 2 inch	VP	
Filling liquid			Aseptic screwed gland SÜDMO with clamp connection W 601 <sup>1)</sup>		
Food oil, FDA-listed	3		1 inch	WM	
Special version	9	L1Y	• 1 // inch	WN	
(add Order code and plain text)			• 1/2 Inch	WP	
Output signal			• 2 Inch Special version	ZA	J 1 Y
4 20 mA	1		(add Order code and plain text)	24	311
Special version	9	M1Y	Filling liquid		
(add Order code and plain text)	J.		Food oil, FDA-listed	3	
			Medicinal white oil	2	
<ol> <li>Please note the internal diameter of the pip (app "Further designe")</li> </ol>	be. Please specify	pipe classes	Special version	9	L1Y
(see "Further designs")			(add Order code and plain text)	-	

(add Order code and plain text) Output signal 4 ... 20 mA 1 Special version (add Order code and plain text) 9

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

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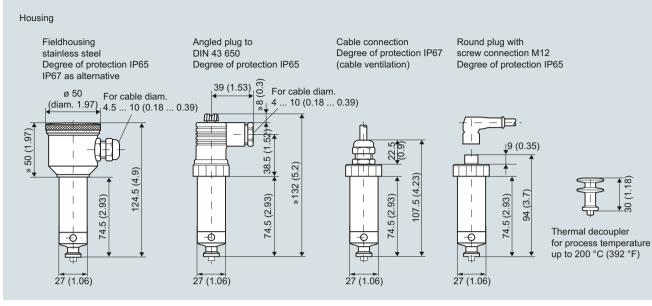
Selection and Orde	•	Article No.	Ord. code	Selection and Ord	•	Article No.	Ord. co
SITRANS P Compa mitters for pressure pressure with clam	e and absolute	7 M F 8 0 1 0 -		SITRANS P Compa mitters for pressur pressure with clan		7 M F 8 0 1 0 -	
2-wire system Process temperature Accuracy: 0.2 % of fu Output 4 20 mA	up to 140 °C (284 °F) Ill-scale value	2 -		2-wire system Process temperature Accuracy: 0.2 % of f Output 4 20 mA	e up to 140 °C (284 °F) full-scale value	2	•
Housing design (st No. 1.4404/316L) / e				Measured range	Overload pressure		
Housing with angled	plug to DIN 43650,	1		(continued) -1 9 bar	60 bar	G	<b>`</b>
IP65, union nut made Housing with device				(-14.5 130.5 psi)	(870 psi)		
union nut made of p	olyamide	2		-1 15 bar (-14.5 217.6 psi)	60 bar (870 psi)	GI	3
Housing with device union nut made of st		3		0 1 bar a	3 bar a	н	۹
Stainless steel field h	nousing (small) with	4		(0 14.5 psi a) 0 1.6 bar a	(43.5 psi a) 10 bar	н	3
cable gland, IP65 Stainless steel field h	ousing (small) with	5		(0 23.2 psi a) 0 2.5 bar a	(145 psi)	н	
cable gland, IP67	0.	Ū		(0 36.3 psi a)	10 bar a (145 psi a)		
Internal ventilation fo < 16 bar (< 232 psi)				0 4 bar a (0 58 psi a)	10 bar a (145 psi a)	н	)
U	Overload pressure			0 6 bar a	60 bar a	н	=
0 160 mbar (0 2.32 psi)	1 bar (14.5 psi)	BB		(0 87 psi a) 0 10 bar a	(870 psi a) 60 bar a	J	<b>`</b>
0 250 mbar (0 3.63 psi)	1 bar (14.5 psi)	BC		(0 145 psi a)	(870 psi a)		
0 400 mbar	3 bar	ВD		Special version (add Order code ar	nd plain text)	Z	A P1Y
(0 5.8 psi) 0 600 mbar	(43.5 psi) 3 bar	BE		Explosion protecti	,	_	
(0 8.7 psi)	(43.5 psi)			without			1
0 1 bar (0 14.5 psi)	3 bar (43.5 psi)	CA		with, to ATEX 100a, Further designs	II 2 G, EX ID IIC 16	Order code	2
0 1.6 bar	10 bar (145 psi)	СВ		0	rticle No. and specify	Order code	
0 2.5 bar	10 bar	cc		Order code			
(0 36.3 psi) 0 4 bar	(145 psi) 20 bar	CD		Hygiene version Roughness of proce	ess connection:	P01	
(0 58 psi)	(290 psi)			Foil R <sub>a</sub> < 0.8 µm (3. Welded seams R <sub>a</sub> <	15·10 <sup>-8</sup> inch);		
0 6 bar (0 87 psi)	60 bar (870 psi)	CE		$(5.9 \cdot 10^{-8} \text{ inch})$	ς 1.5 μπ		
0 10 bar	60 bar	DA		Integral cooling el		K01	
(0 145 psi) 0 16 bar	(870 psi) 60 bar	DB		Process temperatur (392 °F) instead of			
(0 232 psi) 0 25 bar	(870 psi) 60 bar	DC		Connections for p	-	Det	
(0 363 psi)	(870 psi)			Pipes to DIN 11850 ISO pipes to ISO 24		R01 R02	
0 40 bar (0 580 psi)	100 bar (1450 psi)	D D		Pipes to O. D. Tubir	ng "BS 4825 Part 1"	R03	
-160 0 mbar	1 bar	EB		Certificates			
(-2.32 0 psi) -250 0 bar	(14.5 psi) 1 bar	EC		Quality Inspection ( characteristic curve		C11	
(-3.73 0 psi)	(14.5 psi) 3 bar	ED		IEC 60770-2 Inspection certificat	, 3	C12	
(-5.8 0 psi)	(43.5 psi)			Use of FDA-listed re	emote seal filling	C12 C17	
	3 bar (43.5 psi)	EE		liquids certified by to EN 10204-2.2	test report		
-1 0 bar	3 bar (43.5 psi)	FA		Roughness depth n		C18	
-1 0.6 bar	10 bar	FB		certified by test rep to EN 10204-3.1	ort		
(-14.5 8.7 psi) -1 1.5 bar	(145 psi) 10 bar	FC		Certification to EHE		C19	
(-14.5 21.8 psi)	(145 psi)			seals with aseptic s to DIN 11864	crewed gland		
	20 bar (290 psi)	FD					
	20 bar (290 psi)	FE					

## SITRANS P Compact for gauge and absolute pressure

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## SITRANS P Compact for gauge and absolute pressure

## 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"		
G	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"
G D	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)
D	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)
D	11⁄2"	16	12 (0.47)	50.5 (2)
	2"	16	14 (0.55)	64 (2.52)
	21⁄2"	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"
G	11⁄2"	40	13.5 (0.53)	11/2"
	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"
G	11⁄2"	40	13.5 (0.53)	11/2"
	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"
G	11⁄2"	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"
G D	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 transmitters

Single-range transmitters for general applications

SITRANS P Compact for gauge and absolute pressure

#### Varivent connection DN PN н D mm (inch) mm (inch) 25 19 (0.75) 50 (1.97) 25 40. 19 (0.75) 25/10 68 (2.68) 125

#### 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"
G F	11⁄2"	40	20 (0.79)	Rd 58 x 1/6"
	2"	25	20 (0.79)	Rd 65 x 1/6"
	21/2"	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"
G D	1½"	40	15 (0.59)	Rd 58 x 1/6"
	2"	25	15 (0.59)	Rd 65 x 1/6"
	21⁄2"	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
G J	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
G →	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

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							
SW SW	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)	
G	G¾A	32 (1.26)	22.6 (0.89)	31 (1.22)	16 (0.63)	32 (1.26)	
d -	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)
L_	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)
21/2"	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"
Ţ <b>ĸ</b> _Ŀ <b>→</b> Ţ	11⁄2"	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
<b>I</b> ← L → I	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

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## Pressure transmitters Single-range transmitters for general applications

## SITRANS P Compact for gauge and absolute pressure

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)	
[ <b>←</b> L →	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)	

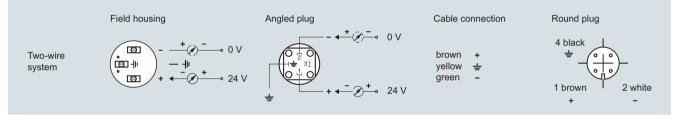
#### Aseptic screwed gland SÜDMO with threaded socket W 501

DN	PN	L mm (inch)	G
1"	25	110 (4.33)	Rd 44 x 1/6"
11⁄2"	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)
[ <mark>← L</mark> →]	11⁄2"	16	110 (4.33)	64 (2.52)
	2"	16	110 (4.33)	77.5 (3.05)

### Schematics



SITRANS P Compact, connection diagram