

# Pressure Measurement

## Transmitters for basic requirements

### 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	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 • DN 25 • DN 32 • DN 40 • DN 50 • DN 65 Milk pipe union to DIN 11851 with threaded socket • DN 25 • DN 32 • DN 40 • DN 50 • DN 65 Clamp connection to DIN 32676 • DN 25 • DN 40 • DN 50 Clamp connection to ISO 2852 • 1 inch • 1½ inch • 2 inch • 2½ inch IDF standard with slotted union nut • 1 inch • 1½ inch • 2 inch IDF standard with threaded socket • 1 inch • 1½ inch • 2 inch SMS standard with slotted union nut • 1 inch • 1½ inch • 2 inch SMS standard with threaded socket • 1 inch • 1½ inch • 2 inch DRD flange, without welding-type flange • DN 50, PN 40 Varivent connection (Tuchenhagen) • D = 50, for Varivent housing DN 25 and 1 inch • D = 68, for Varivent housing DN 40 ... DN 125 and 1½ ... 6 inch Special version (add Order code and plain text)	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		<b>Diaphragm seal with aseptic connection</b> Aseptic screwed gland to DIN 11864-1, form A, with slotted union nut • 1 inch • 1½ inch • 2 inch • 2½ inch Aseptic screwed gland to DIN 11864-1, form A with threaded socket • 1 inch • 1½ inch • 2 inch • 2½ inch Aseptic screwed NEUMO with slotted union nut <sup>1)</sup> • DN 25 • DN 32 • DN 40 • DN 50 Aseptic screwed NEUMO with threaded socket <sup>1)</sup> • DN 25 • DN 32 • DN 40 • DN 50 Aseptic screwed NEUMO with clamp connection, form R <sup>1)</sup> • DN 25 • DN 32 • DN 40 • DN 50 Aseptic screwed NEUMO with clamp connection, form V <sup>1)</sup> • DN 25 • DN 32 • DN 40 • DN 50 Male thread DIN 3852 Form A • G½", min. meas. span 1.6 bar (23.2 psi) • G¾", min. meas. span 1 bar (14.5 psi) • G1", min. meas. span 0.4 bar (5.8 psi) • G1½", min. meas. span 0.25 bar (3.63 psi) • G2", min. meas. span 0.16 bar (2.32 psi) Special version (add Order code and plain text)	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		
<b>Filling liquid</b> Vegetable oil Medicinal white oil Food oil, FDA-listed Special version (add Order code and plain text)	1 2 3 9	J 1 Y L 1 Y	<b>Filling liquid</b> Vegetable oil Medicinal white oil Food oil, FDA-listed Special version (add Order code and plain text)	1 2 3 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

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<b>Housing design (stainless steel mat. No. 1.4404/316L) / electr. connection</b> Housing with angled plug to DIN 43650, IP65 Housing with round plug M12, IP65, union nut made of polyamide Housing with round plug M12, IP65, union nut made of stainless steel Stainless steel field housing (small) with cable gland, IP65 Stainless steel field housing (small) with cable gland, IP67 Internal ventilation for measuring ranges < 10 bar (< 145 psi)	1 2 3 4 5	
<b>Measured range    Overload pressure</b> 0 ... 160 mbar    2 bar (29 psi) 0 ... 250 mbar    2 bar (29 psi) 0 ... 400 mbar    6 bar (87 psi) 0 ... 600 mbar    6 bar (87 psi) 0 ... 1 bar    10 bar (145 psi) 0 ... 1.6 bar    10 bar (145 psi) 0 ... 2.5 bar    16 bar (232 psi) 0 ... 4 bar    16 bar (232 psi) 0 ... 6 bar    30 bar (435 psi) 0 ... 10 bar    30 bar (435 psi) 0 ... 16 bar    50 bar (725 psi) 0 ... 25 bar    50 bar (725 psi) 0 ... 40 bar    70 bar (1015 psi) -160 ... 0 mbar    2 bar (29 psi) (-2.32 ... 0 psi) -250 ... 0 bar    2 bar (29 psi) (-3.73 ... 0 psi) -400 ... 0 bar    6 bar (87 psi) (-5.8 ... 0 psi) -600 ... 0 bar    6 bar (87 psi) (-8.7 ... 0 psi) -1 ... 0 bar    10 bar (145 psi) (-14.5 ... 0 psi) -1 ... 0.6 bar    10 bar (145 psi) (-14.5 ... 8.7 psi) -1 ... 1.5 bar    16 bar (232 psi) (-14.5 ... 21.8 psi) -1 ... 3 bar    16 bar (232 psi) (-14.5 ... 43.5 psi) -1 ... 5 bar    30 bar (435 psi) (-14.5 ... 72.5 psi)	BB BC BD BE CA CB CC CD CE DA DB DC DD EB EC ED EE FA FB FC FD FE	

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<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>Measured range    Overload pressure</b> (continued) -1 ... +9 bar (-14.5 ... +130.5 psi) -1 ... +15 bar (-14.5 ... +217.6 psi) 0 ... 1 bar a (0 ... 14.5 psia) 0 ... 1.6 bar a (0 ... 23.2 psia) 0 ... 2.5 bar a (0 ... 36.3 psia) 0 ... 4 bar a (0 ... 58 psia) 0 ... 6 bar a (0 ... 87 psia) 0 ... 10 bar a (0 ... 145 psia) Special version (add Order code and plain text)	30 bar (435 psi) 50 bar (725 psi) 10 bar a (145 psia) 10 bar a (145 psia) 16 bar a (232 psia) 16 bar a (232 psia) 30 bar a (435 psi) 30 bar a (435 psi)	GA GB HA HB HC HD HE JA ZA    P 1 Y
<b>Explosion protection</b> without with, to ATEX 100a, II 2 G, Ex ib IIC T6		1 2
<b>Further designs</b> Please add "-Z" to Article No. and specify Order code		Order code
<b>Hygiene version</b> 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)		P01
<b>Integral cooling element</b> Process temperature max. 200 °C (392 °F) instead of 140 °C (284 °F)		K01
<b>Connections for pipe</b> Pipes to DIN 11850 ISO pipes to DIN 2463 Pipes to O. D. Tubing "BS 4825 Part 1"		R01 R02 R03
<b>Certificates</b> Quality inspection certificate (Factory calibration) to IEC 60770-2 Inspection certificate to EN 10204-3.1 Use of FDA-listed remote seal filling liquids certified by test report to EN 10204-2.2 Roughness depth measurement $R_a$ certified by test report to EN 10204-3.1 Certification to EHEDG for clamp-on seals with aseptic screwed gland to DIN 11864		C11 C12 C17 C18 C19

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<b>Clamp-on remote seal (screwed gland at both ends) with quick-release clamps</b> 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 32</li> <li>• DN 40</li> <li>• DN 50</li> <li>• DN 65</li> </ul> Clamp connection to ISO 2852 <sup>1)</sup> <ul style="list-style-type: none"> <li>• 1 inch</li> <li>• 1½ inch</li> <li>• 2 inch</li> <li>• 2½ inch</li> </ul> Special version (add Order code and plain text)	AD AE AF AG AH CD CE CF CG CH DM DN DP DQ ZA	J 1 Y	<b>Clamp-on seal with aseptic connection</b> 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> </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> <li>• DN 65</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 gland SÜDMO with threaded socket W 501 <ul style="list-style-type: none"> <li>• 1 inch</li> <li>• 1½ inch</li> <li>• 2 inch</li> </ul> Aseptic screwed gland SÜDMO with clamp connection W 601 <ul style="list-style-type: none"> <li>• 1 inch</li> <li>• 1½ inch</li> <li>• 2 inch</li> </ul> Special version (add Order code and plain text)	QM QN QP SD SE SF SG SH TD TE TF TG VM VN VP WM WN WP ZA	J 1 Y
<b>Filling liquid</b> Vegetable oil Medicinal white oil Food oil, FDA-listed Special version (add Order code and plain text)	1 2 3 9	L 1 Y	<b>Filling liquid</b> Vegetable oil Medicinal white oil Food oil, FDA-listed Special version (add Order code and plain text)	1 2 3 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 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

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<b>Measured range    Overload pressure</b> 0 ... 160 mbar    2 bar (0 ... 2.32 psi)    (29 psi) 0 ... 250 mbar    2 bar (0 ... 3.63 psi)    (29 psi) 0 ... 400 mbar    6 bar (0 ... 5.8 psi)    (87 psi) 0 ... 600 mbar    6 bar (0 ... 8.7 psi)    (87 psi) 0 ... 1 bar    10 bar (0 ... 14.5 psi)    (145 psi) 0 ... 1.6 bar    10 bar (0 ... 23.2 psi)    (145 psi) 0 ... 2.5 bar    16 bar (0 ... 36.3 psi)    (232 psi) 0 ... 4 bar    16 bar (0 ... 58 psi)    (232 psi) 0 ... 6 bar    30 bar (0 ... 87 psi)    (435 psi) 0 ... 10 bar    30 bar (0 ... 145 psi)    (435 psi) 0 ... 16 bar    50 bar (0 ... 232 psi)    (725 psi) 0 ... 25 bar    50 bar (0 ... 363 psi)    (725 psi) 0 ... 40 bar    70 bar (0 ... 580 psi)    (1015 psi) -160 ... 0 mbar    2 bar (-2.32 ... 0 psi)    (29 psi) -250 ... 0 bar    2 bar (-3.73 ... 0 psi)    (29 psi) -400 ... 0 bar    6 bar (-5.8 ... 0 psi)    (87 psi) -600 ... 0 bar    6 bar (-8.7 ... 0 psi)    (87 psi) -1 ... 0 bar    10 bar (-14.5 ... 0 psi)    (145 psi) -1 ... 0.6 bar    10 bar (-14.5 ... 8.7 psi)    (145 psi) -1 ... 1.5 bar    16 bar (-14.5 ... 21.8 psi)    (232 psi) -1 ... 3 bar    16 bar (-14.5 ... 43.5 psi)    (232 psi) -1 ... 5 bar    30 bar (-14.5 ... 72.5 psi)    (435 psi)		BB BC BD BE CA CB CC CD CE DA DB DC DD EB EC ED EE FA FB FC FD FE	-1 ... 9 bar    30 bar (-14.5 ... 130.5 psi)    (435 psi) -1 ... 15 bar    50 bar (-14.5 ... 217.6 psi)    (725 psi) 0 ... 1 bar a    10 bar a (0 ... 14.5 psia)    (145 psia) 0 ... 1.6 bar a    10 bar a (0 ... 23.2 psia)    (145 psia) 0 ... 2.5 bar a    16 bar a (0 ... 36.3 psia)    (232 psia) 0 ... 4 bar a    16 bar a (0 ... 58 psia)    (232 psia) 0 ... 6 bar a    30 bar a (0 ... 87 psia)    (435 psia) 0 ... 10 bar a    30 bar a (0 ... 145 psia)    (435 psia) Special version (add Order code and plain text)		GA GB HA HB HC HD HE JA ZA    P1Y
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