

Selection and Ordering data

Order No.

Pressure transmitter for gauge and absolute pressure, front-flush diaphragm, SITRANS P DS III HART

F) 7 MF 4 1 3 3 -

Measuring cell filling
Measuring cell cleaning

Silicone oil	normal	1
Inert liquid	Grease-free	3
FDA compliant fill fluid		
• Neobee oil	normal	4

Measuring span

0,01 ... 1 bar g	(0.15 ... 14.5 psi g)	B
0,04 ... 4 bar g	(0.58 ... 58 psi g)	C
0,16 ... 16 bar g	(2.32 ... 232 psi g)	D
0,63 ... 63 bar g	(9.14 ... 914 psi g)	E
13 ... 1300 mbar a ¹⁾	(0.19 ... 18.9 psi a) ¹⁾	S
0,05 ... 5 bar a ¹⁾	(0.7 ... 72.5 psi a) ¹⁾	T
0,3 ... 30 bar a ¹⁾	(4.35 ... 435 psi a) ¹⁾	U

Wetted parts materials

Seal diaphragm	Connection shank	
Stainless steel	Stainless steel	A
Hastelloy ²⁾	Stainless steel	B

Process connection

- Flange version with Order Code M..., N..., R... or Q... 7

Non-wetted parts materials

- Housing made of die-cast aluminium 0
- Housing stainless steel precision casting 3

Version

- Standard versions 1
- International version, English label inscriptions, documentation in 5 languages on CD 2

Explosion protection

- None A
- With ATEX, Type of protection:
 - "Intrinsic safety (EEx ia)" B
 - "Explosion-proof (EExd)"³⁾ D
 - "Intrinsic safety, explosion-proof enclosure and dust explosion protection (EEx ia+ EEx d + Zone 1D/2D)"⁴⁾ R
- With FM + CSA, Type of protection:
 - "Intrinsic Safe und Explosion Proof (is + xp)"³⁾ (Available soon) NC

Electrical connection / cable entry

- Inner thread M20 x 1.5 B
- Female thread ½-14 NPT C
- M12 connectors (metal)⁵⁾ F

Display

- Without indicator 0
- Without visible digital indicator (digital indicator concealed, setting: mA) ▶ 1
- with visible digital indication, setting: mA 6
- with customer-specific digital indication (setting as specified, Order Code "Y21" or "Y22" required) 7

Power supply units see Chap. 8 "Supplementary Components".

Included in delivery of the device:

- Brief instructions (Leporello)
- CD-ROM with detailed documentation

¹⁾ Not with temperature decoupler P00 and P10, not for process connections R02, R04, R10 and R11, and can only be ordered in conjunction with silicone oil.

²⁾ Only possible for flange with M..., N... and Q... option.

³⁾ Without cable gland, with blanking plug

⁴⁾ With enclosed cable gland EEx ia and blanking plug

⁵⁾ M12 delivered without cable socket

F) Subject to export regulations AL: 91999, ECCN: N.

Selection and Ordering data

Order No.

Pressure transmitter P for gauge and absolute pressure, front-flush diaphragm:**SITRANS P DS III PA (PROFIBUS PA)** F) 7MF4134-**SITRANS P DS III FF (FOUNDATION Fieldbus)** F) 7MF4135-**Measuring cell filling****Measuring cell cleaning**

Silicone oil	normal	1
Inert liquid	Grease-free	3
FDA compliant fill fluid		
• Neobee oil	normal	4

Nominal measuring range

1 bar g	(14.5 psi g)	B
4 bar g	(58 psi g)	C
16 bar g	(232 psi g)	D
63 bar g	(914 psi g)	E
1300 mbar a ¹⁾	(18.9 psi a ¹⁾)	N
		O
5 bar a ¹⁾	(72.5 psi a ¹⁾)	T
30 bar a ¹⁾	(435 psi a ¹⁾)	U

Wetted parts materials

Seal diaphragm	Connection shank	
Stainless steel	Stainless steel	A
Hastelloy ²⁾	Stainless steel	B

Process connection

• Flange version with Order Code M.., N.., R.. or Q.. 7

Non-wetted parts materials

• Housing made of die-cast aluminium 0
 • Housing stainless steel precision casting 3

Version

• Standard versions 1
 • International version, English label inscriptions, documentation in 5 languages on CD 2

Explosion protection

• None A
 • With ATEX, Type of protection:
 - "Intrinsic safety (EEx ia)" B
 - "Explosion-proof (EExd)"³⁾ D
 - "Intrinsic safety, explosion-proof enclosure and dust explosion protection (EEx ia+ EEx d + Zone 1D/2D)"⁴⁾ R
 • With FM + CSA, Type of protection:
 - "Intrinsic Safe und Explosion Proof (is + xp)"³⁾ NC
 (Available soon)

Electrical connection / cable entry

• Screwed gland M20 x 1.5 B
 • Screwed gland ½"-14 NPT C
 • Han 7D plug (plastic housing) incl. mating connector⁵⁾ D
 • M12 connectors (metal)⁶⁾ F

Display

• Without indicator 0
 • Without visible digital indicator ▶ (digital indicator concealed, setting: mA) 1
 • With visible digital display 6
 • With customer-specific digital display (setting as specified, Order Code "Y21" required) 7

Included in delivery of the device:

- Brief instructions (Leporello)
- CD-ROM with detailed documentation

¹⁾ Not with temperature decoupler P00 and P10, not for process connections R01, R02, R04, R10 and R11, and can only be ordered in conjunction with silicone oil.

²⁾ Only possible for flange with M.., N.. and Q.. option.

³⁾ Without cable gland, with blanking plug

⁴⁾ With enclosed cable gland EEx ia and blanking plug

⁵⁾ Not in conjunction with types of protection "Explosion-proof" and "Ex nA", "Intrinsic safety" and "Explosion-proof".

⁶⁾ M12 delivered without cable socket

F) Subject to export regulations AL: 9I999, ECCN: N.

Selection and Ordering data	Order code			
<i>Further designs</i> Add "-Z" to Order No. and specify Order Code.		HART	PA	FF
Plug • Angled • Han 8D (metal, gray)	A32 A33	✓ ✓		
Cable sockets for M12 connectors (metal)	A50	✓	✓	✓
Rating plate inscription (instead of German)				
• English	B11	✓	✓	✓
• French	B12	✓	✓	✓
• Spanish	B13	✓	✓	✓
• Italian	B14	✓	✓	✓
English rating plate Pressure units in inH ₂ O and/or psi	B21	✓	✓	✓
Quality inspection certificate (factory calibration) to IEC 60770-2	C11	✓	✓	✓
Inspection certificate Acc. to EN 10204-3.1	C12	✓	✓	✓
Factory certificate Acc. to EN 10204-2.2	C14	✓	✓	✓
PROFIsafe certificate and protocol	C21		✓	
"Functional safety (SIL2/3)" certificate	C23	✓		
Ex Approval IEC Ex (EEx ia) (only for transmitter 7MF4...-.....-B..)	E45	✓	✓	✓
Ex Approval IEC Ex (EEx id) (only for transmitter 7MF4...-.....-D..)	E46	✓	✓	✓
Two coats of lacquer on casing and cover (PU on epoxy)	G10	✓	✓	✓
Flanges to EN 1092-1, Form b1 • DN 25, PN 40 ¹⁾ • DN 25, PN 100 ¹⁾ • DN 40, PN 40 • DN 40, PN 100 • DN 50, PN 16 • DN 50, PN 40 • DN 80, PN 16 • DN 80, PN 40	M11 M21 M13 M23 M04 M14 M06 M16	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
Flanges to ASME B16.5 • Stainless steel flange 1" class 150 ¹⁾ • Stainless steel flange 1½" class 150 • Stainless steel flange 2" class 150 • Stainless steel flange 3" class 150 • Stainless steel flange 4" class 150 • Stainless steel flange 1" class 300 ¹⁾ • Stainless steel flange 1½" class 300 • Stainless steel flange 2" class 300 • Stainless steel flange 3" class 300 • Stainless steel flange 4" class 300	M40 M41 M42 M43 M44 M45 M46 M47 M48 M49	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
Threaded connector to DIN 3852-2, form A, thread to ISO 228 • G ¾"-A, front-flush ²⁾ • G 1"-A, front-flush ²⁾ • G 2"-A, front-flush ²⁾	R01 R02 R04	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓
Tank connection³⁾ Sealing is included in delivery • TG 52/50, PN 40 • TG 52/150, PN 40	R10 R11	✓ ✓	✓ ✓	✓ ✓

Selection and Ordering data	Order code			
<i>Further designs</i> Add "-Z" to Order No. and specify Order Code.		HART	PA	FF
Sanitary process connection according DIN 11851 (Dairy connection) • DN 50, PN 25 • DN 80, PN 25	N04 N06	✓ ✓	✓ ✓	✓ ✓
Tri-Clamp connection according DIN 32676/ISO 2852 • DN 50/2", PN 16 • DN 65/3", PN 10	N14 N15	✓ ✓	✓ ✓	✓ ✓
Varivent connection Certified to EHEDG • Type N = 68 for Varivent housing DN 40 ... 125 und 1½" ... 6", PN 40	N28	✓	✓	✓
Temperature decoupler up to 200 °C⁴⁾ for version with front-flush diaphragm	P00	✓	✓	✓
Temperature decoupler up to 250 °C Measuring cell filling: High-temperature oil, only in conjunction with measuring cell filling silicone oil	P10	✓	✓	✓
Bio-Control sanitary process connection Certified to EHEDG • DN 50, PN 16 • DN 65, PN 16	Q53 Q54	✓ ✓	✓ ✓	✓ ✓
Sanitary process connection to DRD • 65 mm, PN 40	M32	✓	✓	✓
SMS socket with union nut • 2" • 2½" • 3"	M67 M68 M69	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓
SMS threaded socket • 2" • 2½" • 3"	M73 M74 M75	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓
IDF socket with union nut ISO 2853 • 2" • 2½" • 3"	M82 M83 M84	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓
IDF threaded socket ISO 2853 • 2" • 2½" • 3"	M92 M93 M94	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓
Sanitary process connection to NEUMO Bio-Connect screw connection Certified to EHEDG • DN 50, PN 16 • DN 65, PN 16 • DN 80, PN 16 • DN 100, PN 16 • DN 2", PN 16 • DN 2½", PN 16 • DN 3", PN 16 • DN 4", PN 16	Q05 Q06 Q07 Q08 Q13 Q14 Q15 Q16	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
Sanitary process connection to NEUMO Bio-Connect flange connection Certified to EHEDG • DN 50, PN 16 • DN 65, PN 16 • DN 80, PN 16 • DN 100, PN 16 • DN 2", PN 16 • DN 2½", PN 16 • DN 3", PN 16 • DN 4", PN 16	Q23 Q24 Q25 Q26 Q31 Q32 Q33 Q34	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓

Selection and Ordering data	Order code			
Further designs Add "-Z" to Order No. and specify Order Code.		HART	PA	FF
Sanitary process connection to NEUMO Bio-Connect clamp connection Certified to EHEDG				
• DN 50, PN 16	Q39	✓	✓	✓
• DN 65, PN 10	Q40	✓	✓	✓
• DN 80, PN 10	Q41	✓	✓	✓
• DN 100, PN 10	Q42	✓	✓	✓
• DN 2½", PN 16	Q48	✓	✓	✓
• DN 3", PN 10	Q49	✓	✓	✓
• DN 4", PN 10	Q50	✓	✓	✓
Sanitary process connection to NEUMO Bio-Connect S flange connection Certified to EHEDG				
• DN 50, PN 16	Q63	✓	✓	✓
• DN 65, PN 10	Q64	✓	✓	✓
• DN 80, PN 10	Q65	✓	✓	✓
• DN 100, PN 10	Q66	✓	✓	✓
• DN 2", PN 16	Q72	✓	✓	✓
• DN 2½", PN 10	Q73	✓	✓	✓
• DN 3", PN 10	Q74	✓	✓	✓
• DN 4", PN 10	Q75	✓	✓	✓
Aseptic threaded socket to DIN 11864-1 Form A				
• DN 50, PN 25	N33	✓	✓	✓
• DN 65, PN 25	N34	✓	✓	✓
• DN 80, PN 25	N35	✓	✓	✓
• DN 100, PN 25	N36	✓	✓	✓
Aseptic flange with notch to DIN 11864-2 Form A				
• DN 50, PN 16	N43	✓	✓	✓
• DN 65, PN 16	N44	✓	✓	✓
• DN 80, PN 16	N45	✓	✓	✓
• DN 100, PN 16	N46	✓	✓	✓
Aseptic flange with groove to DIN 11864-2 Form A				
• DN 50, PN 16	N43 + P11	✓	✓	✓
• DN 65, PN 16	N44 + P11	✓	✓	✓
• DN 80, PN 16	N45 + P11	✓	✓	✓
• DN 100, PN 16	N46 + P11	✓	✓	✓
Aseptic clamp with groove to DIN 11864-3 Form A				
• DN 50, PN 25	N53	✓	✓	✓
• DN 65, PN 25	N54	✓	✓	✓
• DN 80, PN 16	N55	✓	✓	✓
• DN 100, PN 16	N56	✓	✓	✓

Selection and Ordering data	Order code			
Additional data		HART	PA	FF
Please add "-Z" to Order No. and specify Order code(s) and plain text.				
Measuring range to be set Specify in plain text (max. 5 characters): Y01: ... up to ... mbar, bar, kPa, MPa, psi	Y01	✓		
Stainless steel tag plate (measuring point description) Max. 16 characters, specify in plain text: Y15:	Y15	✓	✓	✓
Measuring point text Max. 27 characters, specify in plain text: Y16:	Y16	✓	✓	✓
Entry of HART address (TAG) Max. 8 characters, specify in plain text: Y17:	Y17	✓		
Setting of pressure indicator in pressure units Specify in plain text (standard setting: bar): Y21: mbar, bar, kPa, MPa, psi, ... Note: The following pressure units can be selected: bar, mbar, mm H ₂ O ⁺ , inH ₂ O ⁺ , ftH ₂ O ⁺ , mmHG, inHG, psi, Pa, kPa, MPa, g/cm ² , kg/cm ² , Torr, ATM or % ¹⁾ ref. temperature 20 °C	Y21	✓	✓	✓
Preset bus address possible between 1 and 126 Specify in plain text: Y25:	Y25		✓	
Only "Y01" and "Y21" can be factory preset ✓ = available				
ordering example Item line: 7MF4133-1DB20-1AB7-Z B line: A22 + Y01 + Y21 C line: Y01: 1 ... 10 bar (14.5 ... 145 psi) C line: Y21: bar (psi)				

1) Special seal in Viton included in the scope of delivery.

2) Lower measuring limit -100 mbar g (1.45 psi g).

3) The weldable socket can be ordered under accessories.

4) The maximum permissible temperatures of the medium depend on the respective cell fillings.