

**Selection and Ordering data**

Order No.

**Pressure transmitters for absolute pressure aus series pressure, SITRANS P DS III HART**

F) 7 MF 4 2 3 3 -

**Measuring cell filling**
**Measuring cell cleaning**

 Silicone oil  
 Inert liquid<sup>1)</sup>

 normal  
 Grease-free

 1  
 3

**Measuring span**

8.3 ... 250 mbar a	(0.12 ... 3.63 psi a)
43 ... 1300 mbar a	(0.62 ... 18.9 psi a)
0.16 ... 5 bar a	(2.32 ... 72.5 psi a)
1 ... 30 bar a	(14.5 ... 435 psi a)

 D  
 F  
 G  
 H

**Wetted parts materials**

Seal diaphragm      Process connection

Stainless steel	Stainless steel	F)	A
Hastelloy	Stainless steel	F)	B
Hastelloy	Hastelloy	F)	C
Version for diaphragm seal <sup>2)3)4)</sup>			Y

**Process connection**

- Connection shank G½B to EN 837-1
- Female thread ½-14 NPT
- Stainless steel oval flange
  - Mounting thread 7/16-20 UNF to EN 61518
  - Mounting thread M10 to DIN 19213
  - Mounting thread M12 to DIN 19213
- Male thread M20 x 1.5
- Male thread ½ -14 NPT

 0  
 1  
 2  
 3  
 4  
 5  
 6

**Non-wetted parts materials**

- Housing made of die-cast aluminium
- Housing stainless steel precision casting<sup>5)</sup>

 0  
 3

**Version**

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

 1  
 2

**Explosion protection**

- None
- With ATEX, Type of protection:
  - "Intrinsic safety (EEx ia)"
  - "Explosion-proof (EEx d)"<sup>6)</sup>
  - "Intrinsic safety and flameproof enclosure" (EEx ia + EEx d)"<sup>7)</sup>
  - "Ex nA/nL (Zone 2)"
  - "Intrinsic safety, explosion-proof enclosure and dust explosion protection (EEx ia+ EEx d + Zone 1D/2D)"<sup>7)</sup>
- With FM + CSA, Type of protection:
  - "Intrinsic Safe und Explosion Proof (is + xp)"<sup>6)</sup>

 A  
 B  
 D  
 P  
 E  
 R  
 NC

**Electrical connection / cable entry**

- Screwed gland Pg 13.5<sup>8)</sup>
- Screwed gland M20x1.5
- Screwed gland ½-14 NPT
- Han 7D plug (plastic housing) incl. mating connector<sup>8)</sup>
- M12 connectors (metal)<sup>9)</sup>

 A  
 B  
 C  
 D  
 F

**Selection and Ordering data**

Order No.

**Pressure transmitters for absolute pressure aus series pressure, SITRANS P DS III HART**

F) 7 MF 4 2 3 3 -

**Display**

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

 0  
 1  
 6  
 7

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

Included in delivery of the device:

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

- 1) For oxygen application, add Order code E10.
  - 2) Version 7MF4233-1DY... only up to max. span 200 mbar a (2.9 psi a).
  - 3) When the manufacture's certificate (calibration certificate) has to be ordered for transmitters with diaphragm seals according to IEC 60770-2, it is recommended only to order this certificate exclusively with the diaphragm seals. The measuring accuracy of the total combination is certified here.If the acceptance test certificate 3.1 is ordered for the transmitter with mounted diaphragm seals this certificate must also be ordered with the respective remote seals.
  - 4) If the acceptance test certificate 3.1 is ordered for the transmitter with mounted diaphragm seals this certificate must also be ordered with the respective remote seals.
  - 5) Not in conjunction with Electrical connection "Screwed gland Pg 13.5" and "Han7D plug".
  - 6) Without cable gland, with blanking plug.
  - 7) With enclosed cable gland EEx ia and blanking plug.
  - 8) Not in conjunction with types of protection "Explosion-proof" and "Ex nA", "Intrinsic safety" and "Explosion-proof".
  - 9) M12 delivered without cable socket
- F) Subject to export regulations AL: 91999, ECCN: N.

Selection and Ordering data		Order No.
<b>For absolute pressure (from the gauge pressure series)</b>		
<b>SITRANS P DS III PA (PROFIBUS PA)</b>	F)	<b>7 MF 4 2 3 4 -</b>
<b>SITRANS P DS III FF (FOUNDATION Fieldbus)</b>	F)	<b>7 MF 4 2 3 5 -</b>
■ ■ ■ ■ ■ - ■ ■ ■ ■ ■		
<b>Measuring cell filling</b>	<b>Measuring cell cleaning</b>	
Silicone oil	normal	1
Inert liquid <sup>1)</sup>	Grease-free	3
<b>Nominal measuring range</b>		
250 mbar a	(3.63 psi a)	D
1300 mbar a	(18.9 psi a)	F
5 bar a	(72.5 psi a)	G
30 bar a	(435 psi a)	H
<b>Wetted parts materials</b>		
Seal diaphragm	Process connection	
Stainless steel	Stainless steel	F) A
Hastelloy	Stainless steel	F) B
Hastelloy	Hastelloy	F) C
Version as diaphragm seal <sup>2) 3) 4)</sup>		Y
<b>Process connection</b>		
• Connection shank G <sup>1</sup> / <sub>2</sub> B to EN 837-1		0
• Female thread 1/2-14 NPT		1
• Stainless steel oval flange		
- Mounting thread <sup>7</sup> / <sub>16</sub> -20 UNF to EN 61518		2
- Mounting thread M10 to DIN 19213		3
- Mounting thread M12 to DIN 19213		4
• Male thread M20 x 1.5		5
• Male thread 1/2 -14 NPT		6
<b>Non-wetted parts materials</b>		
• Housing made of die-cast aluminium		0
• Housing stainless steel precision casting		3
<b>Version</b>		
• Standard versions		1
• International version, English label inscriptions, documentation in 5 languages on CD		2
<b>Explosion protection</b>		
• None		A
• With ATEX, Type of protection:		
- "Intrinsic safety (EEx ia)"		B
- "Explosion-proof (EEx d)" <sup>5)</sup>		D
- "Intrinsic safety and flameproof enclosure" (EEx ia + EEx d) <sup>6)</sup>		P
- "Ex nA/nL"		E
- "Intrinsic safety, explosion-proof enclosure and dust explosion protection (EEx ia + EEx d + Zone 1D/2D) <sup>6)</sup> (not for DS III FF)		R
• With FM + CSA, Type of protection:		
- "Intrinsic Safe und Explosion Proof (is + xp)" <sup>5)</sup>		NC
<b>Electrical connection / cable entry</b>		
• Screwed gland M20 x 1.5		B
• Screwed gland 1/2-14 NPT		C
• M12 connectors (metal) <sup>7)</sup>		F

Selection and Ordering data		Order No.
<b>For absolute pressure (from the gauge pressure series)</b>		
<b>SITRANS P DS III PA (PROFIBUS PA)</b>	F)	<b>7 MF 4 2 3 4 -</b>
<b>SITRANS P DS III FF (FOUNDATION Fieldbus)</b>	F)	<b>7 MF 4 2 3 5 -</b>
■ ■ ■ ■ ■ - ■ ■ ■ ■ ■		
<b>Display</b>		
• Without indicator		0
• Without visible digital indicator (digital indicator concealed, setting: mA)	▶	1
• With visible digital indicator		6
• with customer-specific digital indicator (setting as specified, Order Code "Y21" or "Y22" required)		7
Included in delivery of the device:		
• Brief instructions (Leporello)		
• CD-ROM with detailed documentation		
1) For oxygen application, add Order code E10.		
2) Version 7MF4233-1DY... only up to max. span 200 mbar a (2.9 psi a).		
3) When the manufacture's certificate (calibration certificate) has to be ordered for transmitters with diaphragm seals according to IEC 60770-2, it is recommended only to order this certificate exclusively with the diaphragm seals. The measuring accuracy of the <u>total</u> combination is certified here.		
4) If the acceptance test certificate 3.1.is ordered for the transmitter with mounted diaphragm seals this certificate must also be ordered with the respective remote seals.		
5) Without cable gland, with blanking plug.		
6) With enclosed cable gland EEx ia and blanking plug.		
7) M12 delivered without cable socket		
F) Subject to export regulations AL: 91999, ECCN: N.		

Selection and Ordering data	Order code		
<i>Further designs</i>	HART	PA	FF
Add "-Z" to Order No. and specify Order Code.			
<b>Pressure transmitter with mounting bracket (2 shackles, 4 nuts, 4 U-plates, 1 angle) made of:</b>			
• Steel	A01	✓	✓
• Stainless steel	A02	✓	✓
<b>plug</b>			
• Han 7D (metal, gray)	A30	✓	
• Han 8U (instead of Han 7D)	A31	✓	
• Angled	A32	✓	
• Han 8D (metal, gray)	A33	✓	
<b>Cable sockets for M12 connectors (metal)</b>	A50	✓	✓
<b>Rating plate inscription</b> (instead of German)			
• English	B11	✓	✓
• French	B12	✓	✓
• Spanish	B13	✓	✓
• Italian	B14	✓	✓
<b>English rating plate</b>	B21	✓	✓
Pressure units in inH <sub>2</sub> O and/or psi			
<b>Quality inspection certificate (factory calibration) to IEC 60770-2<sup>1)</sup></b>	C11	✓	✓
<b>Inspection certificate<sup>2)</sup></b> Acc. to EN 10204-3.1	C12	✓	✓
<b>Factory certificate</b> Acc. to EN 10204-2.2	C14	✓	✓
<b>"Functional safety (SIL2)" certificate</b>	C20	✓	
<b>PROFIsafe certificate and protocol</b>	C21		✓
<b>"Functional safety (SIL2/3)" certificate</b>	C23	✓	
<b>Setting of upper limit of output signal to 22.0 mA</b>	D05	✓	
<b>Manufacturer's declaration acc. to NACE</b>	D07	✓	✓
<b>Degree of protection IP68</b> (only for M20 x 1.5 and ½-14 NPT)	D12	✓	✓
<b>Supplied with oval flange</b> (1 item), PTFE packing and screws in thread of oval flange	D37	✓	✓
<b>Use in or on zone 1D/2D</b> (only together with type of protection "Intrinsic safety (EEx ia)")	E01	✓	✓
<b>Oxygen application</b> (In the case of oxygen measurement and inert liquid max. 120 bar a (1740 psi a) at 60°C (140 °F))	E10	✓	✓
<b>Explosion-proof "Intrinsic safety" to INMETRO (Brazil)</b> (only for transmitter 7MF4...-.....-B..)	E25	✓	✓
<b>Ex Approval IEC Ex (EEx ia)</b> (only for transmitter 7MF4...-.....-B..)	E45	✓	✓
<b>Ex Approval IEC Ex (EEx id)</b> (only for transmitter 7MF4...-.....-D..)	E46	✓	✓
<b>Explosion-proof "Intrinsic safety" to NEPSI (China)</b> (only for transmitter 7MF4...-.....-B..)	E55	✓	✓

Selection and Ordering data	Order code		
<i>Further designs</i>	HART	PA	FF
Add "-Z" to Order No. and specify Order Code.			
<b>Explosion protection "Explosion-proof" to NEPSI (China)</b> (only for transmitter 7MF4...-.....-D..)	E56	✓	✓
<b>Explosion-proof "Zone 2" to NEPSI (China)</b> (only for transmitter 7MF4...-.....-E..)	E57	✓	✓
<b>Two coats of lacquer on casing and cover (PU on epoxy)</b>	G10	✓	✓
<i>Additional data</i>			
Please add "-Z" to Order No. and specify Order code(s) and plain text.			
<b>Measuring range to be set</b> Specify in plain text (max. 5 characters): Y01: ... up to ... mbar, bar, kPa, MPa, psi	Y01	✓	
<b>Stainless steel tag plate (measuring point description)</b> Max. 16 characters, specify in plain text: Y15: .....	Y15	✓	✓
<b>Measuring point text</b> Max. 27 characters, specify in plain text: Y16: .....	Y16	✓	✓
<b>Entry of HART address (TAG)</b> Max. 8 characters, specify in plain text: Y17: .....	Y17	✓	
<b>Setting of pressure indication in pressure units</b> 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 <sub>2</sub> O <sup>*)</sup> , inH <sub>2</sub> O <sup>*)</sup> , ftH <sub>2</sub> O <sup>*)</sup> , mmHG, inHG, psi, Pa, kPa, MPa, g/cm <sup>2</sup> , kg/cm <sup>2</sup> , Torr, ATM or % *) ref. temperature 20 °C	Y21	✓	✓
<b>Setting of pressure indication in non-pressure units<sup>3)</sup></b> Specify in plain text: Y22: ..... up to ..... l/min, m <sup>3</sup> /h, m, USgpm, ... (specification of measuring range in pressure units "Y01" is essential, unit with max. 5 characters)	Y22 + Y01	✓	
<b>Preset bus address</b> possible between 1 and 126 Specify in plain text: Y25: .....	Y25		✓
Factory mounting of valve manifolds, see accessories.			
Only "Y01", "Y21", "Y22", "Y25" and "D05" can be factory preset			
✓ = available			
<sup>1)</sup> When the manufacturer's certificate (calibration certificate) has to be ordered for transmitters with diaphragm seals according to IEC 60770-2, it is recommended only to order this certificate exclusively with the diaphragm seals. The measuring accuracy of the <u>total</u> combination is certified here.			
<sup>2)</sup> If the acceptance test certificate 3.1 is ordered for the transmitter with mounted diaphragm seals this certificate must also be ordered with the respective remote seals.			
<sup>3)</sup> Preset values can only be changed over SIMATIC PDM.			