

Selection and Ordering data

Order No.

**Pressure transmitter for level,
SITRANS P DS III HART**

7MF4633-

Measuring cell filling**Measuring cell
cleaning**

Silicone oil

normal

Measuring span

25 ... 250 mbar	(0.363 ... 3.63 psi)
25 ... 600 mbar	(0.363 ... 8.70 psi)
53 ... 1600 mbar	(0.77 ... 23.2 psi)
0.16 ... 5 bar	(2.32 ... 72.5 psi)

Process connection of low-pressure side

Female thread 1/4-18 NPT with flange connection

- Mounting thread 7/16-20 UNF to EN 61518
- Mounting thread M10 to DIN 19213 (only for replacement requirement)

Non-wetted parts materials

process flange screws Electronics housing

Stainless steel	Die-cast aluminum
Stainless steel	Stainless steel precision casting ¹⁾

Version

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

Explosion protection

- None
- With ATEX, Type of protection:
 - "Intrinsic safety (Ex ia)"
 - "Explosion-proof (Ex d)²⁾
 - "Intrinsic safety and flameproof enclosure" (Ex ia + Ex d)³⁾
 - "Ex nA/nL (Zone 2)"
 - "Intrinsic safety, explosion-proof enclosure and dust explosion protection (Ex ia+ Ex d + Zone 1D/2D)³⁾
- With FM + CSA, Type of protection:
 - "Intrinsic Safe und Explosion Proof (is + xp)⁴⁾

Electrical connection / cable entry

- Screwed gland Pg 13.5⁴⁾
- Screwed gland M20x1.5
- Screwed gland 1/2-14 NPT
- Han 7D plug (plastic housing) incl. mating connector⁴⁾
- M12 connectors (metal)⁵⁾

Display

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

► Available ex stock

Ordering information

1st order item: Pressure transmitter 7MF4633-...
2nd order item: Mounting flange 7MF4912-3...

ordering example

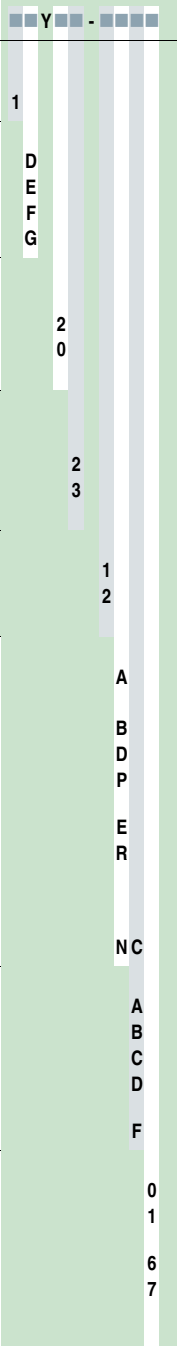
Item line 1: 7MF4633-1EY20-1AA1-Z
B line: Y01
C line: Y01: 80 to 143 mbar (1.16 to 2.1 psi)
Item line 2: 7MF4912-3GE01

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

Included in delivery of the device:

- Brief instructions (Leporello)
- CD-ROM with detailed documentation
- Sealing plug(s) or sealing screw(s) for the process flanges(s)

- 1) Not in conjunction with electrical connection "Screwed gland Pg 13.5" and "Han7D plug".
- 2) Without cable gland, with blanking plug.
- 3) With enclosed cable gland EEx ia and blanking plug.
- 4) Not in conjunction with types of protection "Explosion-proof" and "Ex nA", "Intrinsic safety" and "Explosion-proof".
- 5) M12 delivered without cable socket



Selection and Ordering data

Order No.

Pressure transmitters for level**SITRANS P DS III PA (PROFIBUS PA)**

7 MF 4 6 3 4 -

SITRANS P DS III FF (FOUNDATION Fieldbus)

7 MF 4 6 3 5 -

1 Y - - - - -

Nominal measuring range

250 mbar (3.63 psi)

600 mbar (8.70 psi)

1600 mbar (23.2 psi)

5 bar (72.5 psi)

D

E

F

G

Process connection of low-pressure side

Female thread ¼-18 NPT with flange connection

• Mounting thread 7/16-20 UNF to EN 61518

• Mounting thread M10 to DIN 19213
(only for replacement requirement)

2

0

Non-wetted parts materials

process flange screws Electronics housing

Stainless steel Die-cast aluminum

Stainless steel Stainless steel precision casting

2

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 (EEx¹d)"- "Intrinsic safety and flameproof enclosure"
(EEx ia + EEx d)²

- "Ex nA/nL (Zone 2)"

- "Intrinsic safety, explosion-proof enclosure and
dust explosion protection (EEx ia + EEx d +
Zone 1D/2D)² (not for DS III FF)

• With FM + CSA, Type of protection:

- "Intrinsic Safe und Explosion Proof (is + xp)¹)"

A

B

D

P

E

R

NC

Electrical connection / cable entry

• Screwed gland M20 x 1.5

• Screwed gland ½-14 NPT

• M12 connectors (metal)³)

B

C

F

Display

• Without indicator

• Without visible digital indicator(digital indicator ►
concealed, setting: mA)

• With visible digital indication

• With customer-specific digital indication (setting
as specified, Order Code "Y21" required)

0

1

6

7

► Available ex stock

Ordering information

1st order item: Pressure transmitter 7MF4634-...

2nd order item: Mounting flange 7MF4912-...

ordering example

Item line 1: 7MF4634-1EY20-1AA1

Item line 2: 7MF4912-3GE01

Included in delivery of the device:

• Brief instructions (Leporello)

• CD-ROM with detailed documentation

• Sealing plug(s) or sealing screw(s) for the process flanges(s)

1) Without cable gland, with blanking plug.

2) With enclosed cable gland EEx ia and blanking plug.

3) M12 delivered without cable socket

Selection and Ordering data	Order code		
<i>Further designs</i>	HART	PA	FF
Add "-Z" to Order No. and specify Order Code.			
O-rings for process flanges on low-pressure side (instead of FPM (Viton))			
• PTFE (Teflon)	A20	✓	✓
• FEP (with silicone core, approved for food)	A21	✓	✓
• FPM (Kalrez, compound 4079)	A22	✓	✓
• NBR (Buna N)	A23	✓	✓
Plug			
• Han 7D (metal, gray)	A30	✓	
• Han 8U (instead of Han 7D)	A31	✓	
• Angled	A32	✓	
• Han 8D (metal, gray)	A33	✓	
Sealing screw ¼-18 NPT, with valve in mat. of process flanges	A40	✓	✓
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	✓	✓
"Functional safety (SIL2)" certificate	C20	✓	
PROFIsafe certificate and protocol	C21		✓
"Functional safety (SIL2/3)" certificate	C23	✓	
Setting of upper limit of output signal to 22.0 mA	D05	✓	
Degree of protection IP68 (only for M20x1.5 and ½-14 NPT)	D12	✓	✓
Supplied with oval flange (1 item), PTFE packing and screws in thread of process flange	D37	✓	✓
Use on zone 1D / 2D (only together with type of protection "Intrinsic safety (EEx ia)")	E01	✓	✓
Overfilling safety device for flammable and non-flammable liquids (max. PN 32 (MWVP 464 psi), basic device with type of protection "Intrinsic safety (EEx ia)")	E08	✓	✓
Explosion-proof "Intrinsic safety" to INMETRO (Brazil) (only for transmitter 7MF4...-.....-B..)	E25	✓	✓
Ex Approval IEC Ex (EEx ia) (only for transmitter 7MF4...-.....-B..)	E45	✓	✓
Ex Approval IEC Ex (EEx id) (only for transmitter 7MF4...-.....-D..)	E46	✓	✓

Selection and Ordering data	Order code		
<i>Further designs</i>	HART	PA	FF
Add "-Z" to Order No. and specify Order Code.			
Explosion-proof "Intrinsic safety" to NEPSI (China) (only for transmitter 7MF4...-.....-B..)	E55	✓	✓
Explosion protection "Explosion-proof" to NEPSI (China) (only for transmitter 7MF4...-.....-D..)	E56	✓	✓
Ex protection "Zone 2" to NEPSI (China) (only for transmitter 7MF4...-.....-E..)	E57	✓	✓
Two coats of lacquer on casing and cover (PU on epoxy)	G10	✓	✓
Replacement of process connection side	H01	✓	✓
<i>Additional data</i>			
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 ¹⁾ , inH ₂ O ¹⁾ , ftH ₂ O ¹⁾ , mmHG, inHG, psi, Pa, kPa, MPa, g/cm ² , kg/cm ² , Torr, ATM or % ¹⁾ ref. temperature 20 °C	Y21	✓	✓
Setting of pressure indicator in non-pressure units²⁾ Specify in plain text: Y22: up to l/min, m ³ /h, m, USgpm, ... (specification of measuring range in pressure units "Y01" is essential, unit with max. 5 characters)	Y22 ¹⁾ + Y01	✓	
Preset bus address possible between 1 and 126 Specify in plain text Y25:	Y25		✓
Only "Y01", "Y21", "Y22", "Y25" and "D05" can be factory preset ✓ = available			

¹⁾ Not in conjunction with over-filling safety device for flammable and non-flammable liquids (Order Code "E08")

²⁾ Preset values can only be changed over SIMATIC PDM.

Selection and Ordering data		Order No.	
Mounting flange		D)	7 MF 4 9 1 2
Directly mounted on the SITRANS P pressure transmitter (converter part) for level, for DS III series		3	
Connection to EN 1092-1			
Nominal diameter	Nominal pressure		
DN 80	PN 40	D	
DN 100	PN 16	G	
	PN 40	H	
Connection to ASME B16.5			
Nominal diameter	Nominal pressure		
3 inch	Class 150	Q	
	Class 300	R	
4 inch	Class 150	T	
	Class 300	U	
Other version, add Order Code and plain text: Nominal diameter: ...; Nominal press.: ...		Z	J 1 Y
Wetted parts materials			
<ul style="list-style-type: none"> Stainless steel 316L <ul style="list-style-type: none"> - Coated with PFA - Coated with PTFE Coated with ECTFE¹⁾ Monel 400, mat. no. 2.4360 Hastelloy B2, mat. no. 2.4617 Hastelloy C276, mat. no. 2.4819 Hastelloy C4, mat. no. 2.4610 Tantalum 		A D E 0 F G H J U K Z	
Other version, add Order Code and plain text: material of parts in contact with the medium: ... Sealing face, see "Technical specifications"			K 1 Y
Tube length			
<ul style="list-style-type: none"> None 50 mm (1.97 inch) 100 mm (3.94 inch) 150 mm (5.90 inch) 200 mm (7.87 inch) 		0 1 2 3 4 9	
Other version: add Order Code and plain text: tube length: ...			L 1 Y
Filling liquid			
<ul style="list-style-type: none"> Silicone oil M5 Silicone oil M50 High-temperature oil Halocarbon oil (for O₂-measurement) Glycerin/water²⁾ Food oil (FDA-listed) 		1 2 3 4 6 7 9	
Other version, add Order Code and plain text: filling liquid: ...			M 1 Y

Selection and Ordering data		Order code			
Further designs			HART	PA	FF
Add "-Z" to Order No. and specify Order Code.					
Spark arrester		A01	✓	✓	
For mounting on zone 0 (including documentation)					
Certificate to EN 10204-2.2		C10			
For certification of oil - and grease-free cleaned and packed version for oxygen and summer applications in which only inert filling liquid may be used. (Only in conjunction with halocarbon oil fill fluid)					
Quality inspection certificate (factory calibration) to IEC 60770-2		C11	✓	✓	
Inspection certificate		C12	✓	✓	
Acc. to EN 10204-3.1					
Vacuum-proof design		V04	✓	✓	
(for use in low-pressure range)					
Note: suffix "Y01" required with pressure transmitter!					
✓ = available					

¹⁾ For vacuum on request

²⁾ Not suitable for use in low-pressure range

D) Subject to export regulations AL:N, ECCN:EAR99H