

# SITRANS P measuring instruments for pressure

## Transmitters for gage, absolute and differential pressure, flow and level

**DS III series  
for level**

Selection and Ordering data		Order No.	Selection and Ordering data		Order code			
<b>SITRANS P pressure transmitter for level</b>			<b>Further designs</b>			<b>HART</b>	<b>PA</b>	<b>FF</b>
<b>DS III PA series (PROFIBUS PA)</b>		7 MF 4 6 3 4 -	Add "-Z" to Order No. and specify Order code.					
<b>DS III FF series (FOUNDATION Fieldbus)</b>		7 MF 4 6 3 5 -	<b>O-rings for process flanges on low-pressure side</b>					
		1 ■ Y ■ ■ - ■ ■ ■ ■	(instead of FPM (Viton))					
<b>Nominal measuring range</b>			<b>• PTFE (Teflon)</b>		<b>A20</b>	✓	✓	✓
250 mbar	(3.63 psi)	D	<b>• FEP (with silicone core, approved for food)</b>		<b>A21</b>	✓	✓	✓
600 mbar	(8.70 psi)	E	<b>• FPPM (Kalrez, compound 4079)</b>		<b>A22</b>	✓	✓	✓
1600 mbar	(23.2 psi)	F	<b>• NBR (Buna N)</b>		<b>A23</b>	✓	✓	✓
5 bar	(72.5 psi)	G	<b>Plug</b>					
<b>Process connection of low-pressure side</b>			<b>• Han 7D (metal, gray)</b>		<b>A30</b>	✓		
Female thread 1/4-18 NPT with flange connection			<b>• Han 8U (instead of Han 7D)</b>		<b>A31</b>	✓		
• Mounting thread M10 to DIN 19213 (only for replacement needs)		0	<b>Sealing screws</b>					
• Mounting thread 7/16-20 UNF to EN 61518		2	1/4-18 NPT, with valve in material of process flanges		<b>A40</b>	✓	✓	✓
<b>Non-wetted parts materials</b>			<b>Cable sockets for M12 connectors (metal)</b>		<b>A50</b>	✓	✓	✓
Process flange screws	Electronics housing		<b>Rating plate inscription</b>					
Stainless steel	Die-cast aluminium	2	(instead of German)					
Stainless steel	Stainless steel precision casting	3	• English		<b>B11</b>	✓	✓	✓
<b>Version</b>			• French		<b>B12</b>	✓	✓	✓
• Standard version		1	• Spanish		<b>B13</b>	✓	✓	✓
• International version, English label inscriptions, documentation in 5 languages on CD		2	• Italian		<b>B14</b>	✓	✓	✓
<b>Explosion protection</b>			<b>English rating plate</b>		<b>B21</b>	✓	✓	✓
• Without		A	Pressure units in inH <sub>2</sub> O or psi					
• With ATEX, Type of protection:			<b>Quality inspection certificate (Factory calibration) to IEC 60770-2</b>		<b>C11</b>	✓	✓	✓
- "Intrinsic safety (EEx ia)"		B	<b>Acceptance test certificate</b>		<b>C12</b>	✓	✓	✓
- "Explosion-proof (EEx d) <sup>1)</sup> "		D	To EN 10204-3.1					
- "Intrinsic safety and explosion-proof enclosure (EEx ia + EEx d) <sup>2)</sup> "		P	<b>Factory certificate</b>		<b>C14</b>	✓	✓	✓
- "Ex nA/nL (zone2)"		E	To EN 10204-2.2					
- "Intrinsic safety, explosion-proof enclosure and dust explosion protection (EEx ia + EEx d + Zone 1D/2D) <sup>2)</sup> (not for DS III FF)"		R	<b>"Functional Safety (SIL)" certificate</b>		<b>C20</b>	✓		
• With FM + CSA, Type of protection:			<b>"PROFIsafe" certificate and protocol</b>		<b>C21</b>		✓	
- "Intrinsic safety and explosion-proof (is + xp) <sup>1)</sup> "		NC	<b>Setting of upper limit of output signal to 22.0 mA</b>		<b>D05</b>	✓		
<b>Electrical connection / cable entry</b>			<b>Type of protection IP68</b>		<b>D12</b>	✓	✓	✓
• Screwed gland M20x1.5		B	(not together with PROFIBUS plug M12)					
• Screwed gland 1/2-14 NPT		C	<b>Supplied with oval flange</b>		<b>D37</b>	✓	✓	✓
• Plug M12 incl. mating connector <sup>3)</sup>		F	(1 item), PTFE packing and stainless steel screws in thread of process flange					
<b>Display</b>			<b>Use on zone 1D / 2D</b>		<b>E01</b>	✓	✓	✓
• Without indicator		0	(only together with type of protection "Intrinsic safety (EEx ia)")					
• Without visible digital indicator (digital indicator hidden, setting: mA)		1	<b>Use on zone 0</b>		<b>E02</b>	✓	✓	✓
• With visible digital indication		6	(only together with type of protection "Intrinsic safety (EEx ia)")					
• With customer-specific digital indication (setting as specified, Order code "Y21" or required)		7	<b>Overfilling safety device for flammable and non-flammable liquids</b>		<b>E08</b>	✓	✓	
			(max. PN 32 (MVWP 464 psi), basic device with type of protection "Intrinsic safety (EEx ia)")					
<b>Ordering information:</b>			<b>Explosion-proof "Intrinsic safety" to INMETRO (Brazil)</b>		<b>E25</b>	✓	✓	✓
1st order item: Pressure transmitter 7MF4634-...			(only for transmitter 7MF4...-.....-B..)					
2nd order item: Mounting flange 7MF4912-...			<b>Explosion-proof "Intrinsic safety" to NEPSI (China)</b>		<b>E55</b>	✓	✓	✓
<b>Ordering example:</b>			(only for transmitter 7MF4...-.....-B..)					
Item line 1: 7MF4634-1EY20-1AA1			<b>Explosion protection "Explosion-proof" to NEPSI (China)</b>		<b>E56</b>	✓	✓	✓
Item line 2: 7MF4912-3GE01			(only for transmitter 7MF4...-.....-D..)					
Included in delivery of the device:			<b>Explosion-proof "Zone 2" to NEPSI (China)</b>		<b>E57</b>	✓	✓	✓
• Brief instructions (Leporello)			(only for transmitter 7MF4...-.....-E..)					
• CD-ROM with detailed documentation			<b>Interchanging of process connection side</b>		<b>H01</b>	✓	✓	✓
• 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) Not together with types of protection "Explosion-proof" and "Intrinsic safety and explosion-proof"

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### DS III series for level

2

Selection and Ordering data	Order code		
<i>Additional data</i>	HART	PA	FF
Add "-Z" to Order No. and specify Order code.			
<b>Measuring range to be set</b> Specify in plain text (max. 5 digits): Y01: ... up to ... mbar, bar, kPa, MPa, psi	Y01	✓	
<b>Measuring point number (TAG No.)</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 indicator in pressure units</b> Specify in plain text (standard setting: mA): Y21: mbar, bar, kPa, MPa, psi, ... Note: The following pressure units can be selected: bar, mbar, mm H <sub>2</sub> O <sup>1)</sup> , inH <sub>2</sub> O <sup>1)</sup> , ftH <sub>2</sub> O <sup>1)</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 indicator in non-pressure units</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 <sup>1)</sup> + Y01	✓	
<b>Preset bus address</b> (possible between 1 and 126) Specify in plain text: Y25: .....	Y25		✓

Only "Y01", "Y21", "Y22", "Y25" and "D05" can be factory preset

✓ = available

<sup>1)</sup> Not together with over-filling safety device for flammable and non-flammable liquids (Order code "E08")

Selection and Ordering data	Order No.Ord. code	
<b>Mounting flange</b> Directly mounted on the SITRANS P pressure transmitter (converter part) for level, for DS III series	7 MF 4 9 1 2 -	
	3	
<b>Connection acc. to EN 1092-1</b> <b>Nom. diam.</b> <b>Nom. press.</b> DN 80                                  PN 40 DN 100                                PN 16 PN 40	D G H	
<b>Connection acc. to ASME B16.5</b> <b>Nom. diam.</b> <b>Nom. press.</b> 3 inch                                  Class 150 Class 300 4 inch                                  Class 150 Class 300	Q R T U Z	J 1 Y
Other version, add Order code and plain text: Nominal diameter: ...; Nominal pressure: ...		
<b>Wetted parts materials</b> • Stainless steel 316L - Coated with PFA - Coated with PTFE - Coated with ECTFE <sup>1)</sup> • 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 F G H J U K Z	K 1 Y
Other version, add Order code and plain text: material of parts in contact with the medium: ... Sealing face, see "Technical specifications"		
<b>Tube length</b> • Without • 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	L 1 Y
Other version: add Order code and plain text: Tube length: ...		
<b>Filling liquid</b> • Silicone oil M5 • Silicone oil M50 • High-temperature oil • Halocarbon oil (for O <sub>2</sub> measurements) • Glycerin / water <sup>2)</sup> • Food oil (FDA-listed)	1 2 3 4 6 7 9	M 1 Y
Other version, add Order code and plain text: filling liquid: ...		

<sup>1)</sup> For vacuum on request

<sup>2)</sup> Not suitable for use in low-pressure range

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<i>Further designs</i>		HART	PA and FF
Add "-Z" to Order No. and specify Order code.			
<b>Flame flashover lock-out</b> For mounting on zone 0 (including documentation)	<b>A01</b>	✓	✓
<b>Quality inspection certificate (Factory calibration) to IEC 60770-2</b>	<b>C11</b>	✓	✓
<b>Acceptance test certificate</b> To EN 10204-3.1	<b>C12</b>	✓	✓
<b>Vacuum-proof design</b> (for use in low-pressure range)	<b>V04</b>	✓	✓
<b>Calculation of span of associated pressure transmitter</b> (enclose filled-in questionnaire with order) Note: suffix "Y01" required with pressure transmitter!	<b>Y05</b>	✓	✓

✓ = available