CITDANC D STATE	ng data		Orc								
SITRANS P pressure transmitters for absolute F)					7 M F 4 3 3 3 -						
pressure, from the differential pressure, series DS III HART											
Measuring cell filling	Magazzing coll										
weasuring cen mining	Measuring cell cleaning										
Silicone oil	Standard		1								
Inert liquid ¹⁾	Grease-free		3								
Span											
8.3 250 mbar a	(0.12 3.63 psi a)	E)	D								
43 1300 mbar a	(0.62 18.9 psi a)	E)	F								
0.16 5 bar a	(2.32 72.5 psi a)	E)	G								
1 30 bar a	(14.5 435 psi a)	_,	Н								
5.3 100 bar a	(76.9 1450 psi a)			Е							
Wetted parts materia Seal diaphragm											
	Parts of measuring cell	_									
Stainless steel	Stainless steel			A							
Hastelloy	Stainless steel			B							
Hastelloy	Hastelloy			С							
Tantalum	Tantalum			E							
Monel	Monel	E)		H							
Gold	Gold			L							
Version for diaphragm	seal ² / ³ / ³ /			Y							
Non-wetted parts ma	toriale										
Process flange screws											
	Electronics housing	_			2						
Stainless steel		_ n			2						
Stainless steel Stainless steel Version	Electronics housing Die-cast aluminium	–									
Stainless steel Stainless steel Version Standard version	Electronics housing Die-cast aluminium Stainless steel precisior casting ⁶⁾					1					
Stainless steel Stainless steel Version Standard version International version,	Electronics housing Die-cast aluminium Stainless steel precisior casting ⁶ , English label inscriptions					1 2					
Stainless steel Stainless steel Version Standard version International version, documentation in 5 li	Die-cast aluminium Stainless steel precision casting ⁶⁾ English label inscriptions anguages on CD										
Stainless steel Stainless steel Version • Standard version • International version, documentation in 5 le	Die-cast aluminium Stainless steel precision casting ⁶⁾ English label inscriptions anguages on CD					2					
Stainless steel Stainless steel Version • Standard version • International version, documentation in 5 li Explosion protection • Without	Electronics housing Die-cast aluminium Stainless steel precisior casting ⁶⁾ English label inscriptions anguages on CD					2	A				
Stainless steel Stainless steel Version Standard version International version, documentation in 5 le Explosion protection Without With ATEX, Type of p	Die-cast aluminium Stainless steel precisior casting ⁶) English label inscriptions anguages on CD					2					
Stainless steel Stainless steel Version Standard version International version, documentation in 5 le Explosion protection Without With ATEX, Type of p - "Intrinsic safety (EE	Electronics housing Die-cast aluminium Stainless steel precision casting ⁶) English label inscriptions anguages on CD Directection: Ex ia)"					2	В				
Stainless steel Stainless steel Version Standard version International version documentation in 5 l Explosion protection Without With ATEX, Type of p "Intrinsic safety (EE "Explosion-proof (E	Ex Electronics housing Die-cast aluminium Stainless steel precision casting ⁶) Ex again the process of the	,				2	B D				
Stainless steel Stainless steel Stainless steel Version Standard version International version, documentation in 5 le Explosion protection Without With ATEX, Type of p "Intrinsic safety (EE "Explosion-proof (E "Intrinsic safety and	Die-cast aluminium Stainless steel precision casting ⁶) English label inscriptions anguages on CD Die-cast aluminium Stainless steel precision casting ⁶) The control of the control	,				2	В				
Stainless steel Stainless steel Version Standard version International version documentation in 5 l Explosion protection Without With ATEX, Type of p "Intrinsic safety (EE "Explosion-proof (E	Die-cast aluminium Stainless steel precision casting ⁶) a, English label inscriptions anguages on CD protection: Ex ia)" Ex d)*7) d explosion-proof enclosure	,				2	B D				
Stainless steel Stainless steel Stainless steel Version Standard version International version, documentation in 5 li Explosion protection Without Without Intrinsic safety (EE "Explosion-proof (EE "Intrinsic safety and (EEx ia + EEx d)" 8 "Ex nA/nL (zone 2)" "Intrinsic safety, exp	Die-cast aluminium Stainless steel precision casting ⁶ English label inscriptions anguages on CD Die-cast aluminium Stainless steel precision casting ⁶ English label inscriptions anguages on CD Die cast in a ca	· ·				2	B D P				
Stainless steel Stainless steel Stainless steel Stainless steel Version Standard version International version, documentation in 5 l. Explosion protection Without With ATEX, Type of p. "Intrinsic safety (EE - "Explosion-proof (E - "Intrinsic safety and (EEx ia + EEx d)" 8. "Ex nA/nL (zone 2)" - "Intrinsic safety, explosion profession profession profession profession profession steel profession pr	Die-cast aluminium Stainless steel precision casting ⁶) English label inscriptions anguages on CD Drotection: Ex ia)" Ex d)" ⁷) d explosion-proof enclosure closion-proof enclosure and tection (EEx ia + EEx d +	· ·				2	B D P				
Stainless steel Stainless steel Stainless steel Version Standard version International version, documentation in 5 lie Explosion protection Without With ATEX, Type of periodic in the standard version in 5 lie Explosion protection Intrinsic safety (EE in Explosion-proof (EE in Explosion-proof (EE in Ex nA/nL (zone 2)) intrinsic safety, explosion profession in the standard version in the	Die-cast aluminium Stainless steel precision casting ⁶) English label inscriptions anguages on CD Direction: Ex ia)" Ex d)" ⁷) d explosion-proof enclosure colosion-proof enclosure and tection (EEx ia + EEx d + e of protection:	· ·				2	B D P E R				
Stainless steel Stainless steel Stainless steel Version Standard version International version, documentation in 5 I. Explosion protection Without With ATEX, Type of p. "Intrinsic safety (EE - "Explosion-proof (E - "Intrinsic safety and (EEx ia + EEx d)" 8 "Ex nA/nL (zone 2)" - "Intrinsic safety, explosion profession profession profession profession profession profession steel steel safety, explosion profession profession steel safety and the safe	Die-cast aluminium Stainless steel precision casting ⁶) English label inscriptions anguages on CD Direction: Ex ia)" Ex d)" ⁷) d explosion-proof enclosure colosion-proof enclosure and tection (EEx ia + EEx d + e of protection:	· ·				2	B D P				
Stainless steel Stainless steel Stainless steel Stainless steel Version Standard version International version, documentation in 5 l Explosion protection Without With ATEX, Type of p "Intrinsic safety (EE "Explosion-proof (E "Intrinsic safety and (EEx ia + EEx d)" 8; "Ex nA/nL (zone 2)" Intrinsic safety, exp dust explosion prof Zone 1D/2D)"8 With FM + CSA, Type "Intrinsic safety and (is + xp)"7) Electrical connection	Die-cast aluminium Stainless steel precision casting ⁶) English label inscriptions anguages on CD Die-cast aluminium Stainless steel precision casting ⁶) English label inscriptions anguages on CD Die contection: Ex ia)* Ex d)* ⁷) Die explosion-proof enclosure and tection (EEx ia + EEx d + EEx	· ·				2	B D P E R				
Stainless steel Stainless steel Stainless steel Stainless steel Version Standard version International version, documentation in 5 l Explosion protection Without With ATEX, Type of p "Intrinsic safety (EE "Explosion-proof (E "Intrinsic safety and (EEx ia + EEx d)" 8; "Ex nA/nL (zone 2)" Intrinsic safety, exp dust explosion prof Zone 1D/2D)"8 With FM + CSA, Type "Intrinsic safety and (is + xp)"7) Electrical connection	Die-cast aluminium Stainless steel precision casting ⁶) English label inscriptions anguages on CD Die-cast aluminium Stainless steel precision casting ⁶) English label inscriptions anguages on CD Die contection: Ex ia)* Ex d)* ⁷) Die explosion-proof enclosure and tection (EEx ia + EEx d + EEx	· ·				2	B D P E R				
Stainless steel Stainless steel Stainless steel Version Standard version International version, documentation in 5 l Explosion protection Without With ATEX, Type of p "Intrinsic safety (EE "Explosion-proof (E "Intrinsic safety and (EEx ia + EEx d)" 8. "Ex nA/nL (zone 2)" Intrinsic safety, exp dust explosion prof Zone 1D/2D)"8 With FM + CSA, Type "Intrinsic safety and (is + xp)"7) Electrical connection Screwed gland Pg 1 Screwed gland M20:	Die-cast aluminium Stainless steel precision casting ⁶) English label inscriptions anguages on CD Die-cast aluminium Stainless steel precision casting ⁶) English label inscriptions anguages on CD Die contection: Ex ia)* Ex d)* ⁷) Die explosion-proof enclosure and tection (EEx ia + EEx d + EEx	· ·				2	B D P E R				
Stainless steel Stainless steel Stainless steel Version Standard version International version, documentation in 5 le Explosion protection Without With ATEX, Type of period in the standard version, documentation in 5 le Explosion protection Without Intrinsic safety (EE - "Explosion-proof (E - "Intrinsic safety and (EEx ia + EEx d)" 8 left in the safety and sexplosion proof Zone 1D/2D)" 8 with FM + CSA, Type - "Intrinsic safety and intrinsic safet	Die-cast aluminium Stainless steel precision casting ⁶) English label inscriptions anguages on CD Die-cast aluminium Stainless steel precision casting ⁶) English label inscriptions anguages on CD Die-cast aluminium Casting ⁶ Die-cast alumin	· ·				2	B D P E R				

• Plug M12 (metal)¹⁰⁾

Selection and Ordering data

SITRANS P pressure transmitters for absolute F pressure, from the differential pressure, series DS III HART

Display

• Without (digital indicator hidden, setting: mA)

• With visible digital indicator

• With customer-specific digital indicator (setting)

7

Power supply units see "SITRANS I power supply units and isolation amplifiers".

Factory-mounting of shut-off valves and valve manifolds see page 2/133.

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) For oxygen applications, add Order code E10.

as specified, Order code "Y21" or required)

- 2) Version 7MF4333-1DY... only up to max. span 200 mbar a (2.9 psi a).
- 3) When the manufacture's certificate M (calibration certificate) has to be ordered for transmitters with diaphragm seals, it is recommended only to order this certificate exclusively with the diaphragm seals. The measuring accuracy of the total combination is certified here.
- 4) Whe the acceptance test certificate 3.1 for transmitters with direct-connected diaphragm seals is ordered, this certificate must also be ordered with the corresponding seals.
- 5) Not for span '5.3 ... 100 bar a (76.9 ... 1450 psi a)". Position of the top vent valve in the process flange (see dimensional drawing).
- 6) Not together with Electrical connection "Screwed gland Pg 13.5" and "Han7D plug".
- 7) Without cable gland, with blanking plug
- 8) With enclosed cable gland EEx ia and blanking plug
- 9) Not together with type of protection "Explosion-proof" and and type of protection "Ex nA".
- ¹⁰⁾ Not together with types of protection "Explosion-proof" or "Intrinsic safety and explosion-proof"
- E) Combinations of the versions marked with E) are subject to the export regulations AL: 2B230, ECCN: N.
- F) Subject to export regulations AL: 91999, ECCN: N.

SITRANS P pressure transmitters for absolute pressure (from the differential pressure series)								
DS III PA series (PROFIBUS PA)						3 3	4 -	
DS III FF series (FOUN	F)	7	МF	4	3 3	5 -		
	,	.,						
Measuring cell filling	Measuring cell		ĺ		П			
Silicone oil	cleaning Standard		1					
Inert liquid ¹⁾	Grease-free		3					
			Ü					
Nominal measuring ra 250 mbar a		E)		D				
1300 mbar a	(3.63 psi a) (18.9 psi a)	E)		F				
5 bar a	(72.5 psi a)	E)		G				
30 bar a	(435 psi a)	_,		H				
100 bar a	(1450 psi a)			 K E				
Wetted parts materials				_				
Seal diaphragm	Parts of measuring cell							
Stainless steel	Stainless steel	-		Α				
Hastelloy	Stainless steel			В				
Hastelloy	Hastelloy			С				
Tantalum	Tantalum			E				
Monel	Monel	E)		Н				
Gold	Gold	<i>'</i>		L				
Version as diaphragm s	eal ²⁾³⁾⁴⁾			Υ				
- Mounting thread M1 - Mounting thread ⁷ / _{1t} • Vent on side of proces - Mounting thread M1 - Mounting thread ⁷ / _{1t} Non-wetted parts mate Process flange screws Stainless steel Stainless steel	-				2 3			
Version								
 Standard version 						1		
 International version, I documentation in 5 la 						2		
Explosion protection • Without							A	
With CENELEC, Type of protection:								
- "Intrinsic safety (EEx						В		
- "Explosion-proof (EE						D		
- "Intrinsic safety and					Р			
(EEx ia + EEx d)" ⁷⁾								
- "Ex nA/nL (zone 2)"					E			
- "Intrinsic safety, expl	ł					R		
dust explosion prote								
	ID/2D)"7) (not for DS III FF)							
• With FM + CSA, Type								
 "Intrinsic safety and (is + xp)"⁶⁾ 	explosion-proof						NC	
Electrical connection	cable entry							
• Screwed gland M20x							В	
• Screwed gland ½-14							C	
 M12 Connector (meta 							F	
	,							

Order No

Selection and Ordering data

Selection and Ordering data Order No.

SITRANS P pressure transmitters for absolute pressure (from the differential pressure series)

DS III PA series (PROFIBUS PA) F) 7 M F 4 3 3 4 -

Display

Without (digital display hidden)

With visible digital indicator

With customer-specific digital indicator (setting as specified, Order code "Y21" or required)

Factory-mounting of shut-off valves and valve manifolds see page

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) For oxygen application, add Order code E10.
- ²⁾ Version 7MF4334-1DY... only up to max. span 200 mbar a (2.9 psi a).
- 3) When the manufacture's certificate M (calibration certificate) has to be ordered for transmitters with diaphragm seals, 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) Whe the acceptance test certificate 3.1 for transmitters with direct-connected diaphragm seals is ordered, this certificate must also be ordered with the corresponding seals.
- 5) Not for nominal measuring range 100 bar a (1450 psi a). Position of the top vent valve in the process flange (see dimensional drawing).
- 6) Without cable gland, with blanking plug
- 7) With enclosed cable gland EEx ia and blanking plug
- 8) Cannot be used together with the following types of protection: "Explosion-proof" and "Intrinsic safety and explosion-proof".
- E) Combinations of the versions marked with E) are subject to the export regulations AL: 2B230, ECCN: N.
- F) Subject to export regulations AL: 91999, ECCN: N.

Selection and Ordering data	Order code			Selection and Ordering data	Order code					
Further designs		HART	PA	FF	Further designs		HART	PA	FF	
Add "-Z" to Order No. and specify Order					Add "-Z" to Order No. and specify Order					
code.					code.					
Pressure transmitter with mounting					Explosion-proof "Intrinsic safety" to NEPSI	E55	✓	✓	✓	
bracket made of:	8.04				(China)					
SteelStainless steel	A01 A02	1	1	1	(only for transmitter 7MF4B)					
	AUZ		•	•	Explosion protection "Explosion-proof" to	E56	✓	✓	✓	
O-rings for process flanges					NEPSI (China) (only for transmitter 7MF4D)					
(instead of FPM (Viton)) ● PTFE (Teflon)	A20	1	1	1			1	1	,	
• FEP (with silicone core, approved for food)	A21	1	1	1	Explosion-proof "Zone 2" to NEPSI (China) (only for transmitter 7MF4E)	E3/	•	•	✓	
• FFPM (Kalrez, compound 4079)	A22	1	1	1	(Only for transmitter /fwr-4)					
NBR (Buna N)	A23	✓	✓	✓	Interchanging of process connection side	H01	✓	✓	✓	
Plug					Vent on side for gas measurements	H02	✓	✓	✓	
Han 7D (metal, gray)	A30	1			Process flange					
Han 8U (instead of Han 7D)	A31	✓			Hastelloy	K01	✓	✓	✓	
Sealing screws	A40	1	1	1	Monel	K02	✓	✓	✓	
1/4-18 NPT, with valve in material of process					 Stainless steel with PVDF insert 	K04	✓	1	✓	
flanges					max. PN 10 (MWP 145 psi), max. temperature of medium 90 °C (194 °F)					
Cable sockets for M12 connectors (metal)	A50	✓	✓	✓	, , ,					
Rating plate inscription					For ½-14 NPT inner process connection on the side in the middle of the process flange,					
(instead of German)					vent valve not possible					
• English	B11	✓	✓	✓	Additional data					
• French	B12	✓	✓	V	Add "-Z" to Order No. and specify Order					
• Spanish	B13	1	1	1	code.					
• Italian	B14	✓	V	V	Measuring range to be set	Y01	√			
English rating plate	B21	✓	✓	✓	Specify in plain text (max. 5 digits):					
Pressure units in inH ₂ O or psi					Y01: up to mbar, bar, kPa, MPa, psi					
Manufacturer's test certificate M	C11	✓	✓	✓	Measuring point number (TAG No.)	Y15	✓	✓	✓	
(calibration certificate) ¹⁾ To DIN 55350, Part 18 and to ISO 8402					Max. 16 characters, specify in plain text:					
	040				Y15:					
Acceptance test certificate ²⁾ To EN 10204-3.1	C12	✓	V	V	Measuring point text	Y16	✓	✓	✓	
		,			Max. 27 characters, specify in plain text: Y16:					
Factory certificate To EN 10204-2.2	C14	✓	1	V		V47	,			
					Entry of HART address (TAG) Max. 8 characters, specify in plain text:	Y17	V			
"Functional Safety (SIL)" certificate	C20	✓			Y17:					
"PROFIsafe" certificate and protocol	C21		✓		Setting of pressure indication in pressure	Y21	1	1	1	
Setting of upper limit of output signal to	D05	✓			units					
22.0 mA					Specify in plain text (standard setting: mA):					
Manufacturer's declaration acc. to NACE	D07	✓	✓	✓	Y21: mbar, bar, kPa, MPa, psi,					
(only together with seal diaphragm made of					Note: The following pressure units can be selected:					
Hastelloy and stainless steel)	D40				bar, mbar, mm H_2O^{*} , in H_2O^{*} , ftH_2O^{*} ,					
Type of protection IP68	D12	✓	1	V	mmHG, inHG, psi, Pa, kPa, MPa, g/cm ² ,					
(not together with Han 7D/Han 8U plug, cable gland PG 13.5)					kg/cm ² , Torr, ATM oder % *) ref. temperature 20 °C					
Digital indicator alongside the input keys	D27	1	1	1	,	Voo	,			
(only together with the devices 7MF4333-					Setting of pressure indication in non-pressure units	Y22 + Y01	1			
2A.6 orA.7-Z, Y21 or Y22 + Y01)					Specify in plain text:					
Supplied with oval flange	D37	1	1	1	Y22: up to l/min, m ³ /h, m, USgpm,					
(1 item), PTFE packing and stainless steel					(specification of measuring range in pressure units "Y01" is essential, unit with					
screws in thread of process flange					max. 5 characters)					
Use in or on zone 1D/2D	E01	✓	✓	✓	Preset bus address	Y25		1		
(only together with type of protection "Intrinsic safety (EEx ia)")					Specify in plain text:					
	F00		,	,	Y25:					
Use on zone 0 (only together with type of protection "Intrinsic	E02	1	✓	1	Only "Y01", "Y21", "Y22", "Y25" and "D05" can be factory preset					
(only together with type of protection "Intrinsic safety (EEx ia)")					✓ = available					
Oxygen application	E10	1	1	1						
(max. 160 bar a (2320 psi a) with oxygen	_10	, i	, i	Ť	 When the manufacture's certificate M (calibra ordered for transmitters with diaphragm seals 	ion certi it is rec	iicate) f ommen	ıas to ded ∩	pe alv to	
measurement and inert liquid)					order this certificate exclusively with the diaph	nragm se				
Explosion-proof "Intrinsic safety" to	E25	1	1	1	accuracy of the total combination is certified here.					
INMETRO (Brazil)					nected diaphragm seals is ordered, this certificate must also be ordered.					
(only for transmitter 7MF4B)					with the corresponding seals.					