

SITRANS P measuring instruments for pressure

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

DS III series for gage pressure

Selection and Ordering data		Order No.	
SITRANS P pressure transmitters for gage pressure, series DS III HART		7MF4033 -	
Measuring cell filling	Measuring cell cleaning		
Silicone oil	Standard	▶ 1	
Inert liquid ¹⁾	Grease-free	▶ 3	
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	
1.6 ... 160 bar g	(23.2 ... 2320 psi g)	▶ F	
4.0 ... 400 bar g	(58.0 ... 5802 psi g)	▶ G	
7.0 ... 700 bar g	(102.0 ... 10153 psi g)	▶ J	
Wetted parts materials			
Seal diaphragm	Process connection		
Stainless steel	Stainless steel	▶ A	
Hastelloy	Stainless steel	▶ B	
Hastelloy	Hastelloy	▶ C	
Version as diaphragm seal ^{2) 3)}		▶ Y	
Process connection			
• Connection shank G $\frac{1}{2}$ B to EN 837-1		▶ 0	
• Female thread $\frac{1}{2}$ -14 NPT		▶ 1	
• Oval flange made of stainless steel			
- Mounting thread $\frac{7}{16}$ -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 $\frac{1}{2}$ -14 NPT		▶ 6	
Non-wetted parts materials			
• Housing made of die-cast aluminium		▶ 0	
• Housing stainless steel precision casting ⁴⁾		▶ 3	
Version			
• Standard version		▶ 1	
• International version, English label inscriptions, documentation in 5 languages on CD		▶ 2	
Explosion protection			
• Without			A
• With ATEX, Type of protection:			
- "Intrinsic safety (EEx ia)"			B
- "Explosion-proof (EEx d) ⁵⁾ "			D
- "Intrinsic safety and explosion-proof enclosure (EEx ia + EEx d) ⁶⁾ "			P
- "Ex nA/nL (zone 2)"			E
- "Intrinsic safety, explosion-proof enclosure and dust explosion protection (EEx ia + EEx d + Zone 1D/2D) ⁶⁾ "			R
• With FM + CSA, Type of protection:			
- "Intrinsic safety and explosion-proof (is + xp) ⁵⁾ "			NC
Electrical connection / cable entry			
• Screwed gland Pg 13.5 (adapter) ⁷⁾			A
• Screwed gland M20x1.5			B
• Screwed gland $\frac{1}{2}$ -14 NPT			C
• Han 7D plug (plastic housing) incl. mating connector ⁷⁾			D
• M12 connector (metal) ⁸⁾			F

Selection and Ordering data		Order No.	
SITRANS P pressure transmitters for gage pressure, series DS III HART		7MF4033 -	
Display			
• Without indicator			0
• Without visible digital indicator (digital indicator hidden, setting: mA)	▶		1
• With visible digital indicator, setting: mA			6
• with customer-specific digital indicator (setting as specified, Order code "Y21" or "Y22" required)			7
▶ Available ex stock			
Power supply units see "SITRANS I power supply units and isolation amplifiers".			
Factory-mounting of shut-off valves and valve manifolds see page 2/142.			
Included in delivery of the device:			
• Brief instructions (Leporello)			
• CD-ROM with detailed documentation			
1) For oxygen application, add Order code E10.			
2) 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.			
3) When 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.			
4) Not together with Electrical connection „Screwed gland Pg 13.5“ and „Han7D plug“.			
5) Without cable gland, with blanking plug			
6) With enclosed cable gland EEx ia and blanking plug			
7) Not together with type of protection "Explosion-proof" and type of protection "Ex nA".			
8) Cannot be used together with the following types of protection: "Explosion-proof" and "Intrinsic safety and explosion-proof"			

TABLE 9-1 Model 7MF4033, Model Designation

Pressure transmitter, two-wire, series DSIII, 7MF4033-					
<u>Measuring cell filling</u>			<u>Measuring cell cleaning</u>		
Silicone oil			Normal	1	
Inert			Grease-free	3	
<u>Span</u>			<u>PN</u>		
0.15 To 15 psi			87 psi	B	
0.60 To 60 psi			145 psi	C	
2.3 To 230 psi			460 psi	D	
9.25 To 925 psi			1450 psi	E	
23 To 2320 psi			3625 psi	F	
58 To 5800 psi			8700 psi	G	
<u>Material of wetted parts</u>					
<u>Process diaphragm</u>		<u>Connection shank</u>			
Stainless steel		Stainless steel		A	
Hastelloy		Stainless steel		B	
Hastelloy		Hastelloy		C	
Version for diaphragm remote process				Y 0	
<u>Process connection</u>					
Connection shank G1/2 A				0	
Female thread 1/2-14 NPT				1	
Oval flange and connection shank, stainless steel, maximum span: 2320 psi:					
- Mounting thread 7/16-20 UNF				2	
- Mounting thread M10				3	
<u>Material of non-wetted parts</u>					
Housing diecast aluminum				0	
Housing stainless steel precision casting				3	
<u>Version</u>					
Standard version				1	
International version (in preparation)					
English plate description and documentation in 5 languages on CD				2	
<u>Explosion protection</u>					
without explosion protection				A	
with explosion protection (CENELEC):					
- Degree of protection "Intrinsic safety" (EEx ia) ³⁾				B	
- Degree of protection "Explosion proof" (EEx d) ¹⁾³⁾				D	
- Degree of protection "Intrinsic safety and explosion proof" (EEx ia + EEx d) ¹⁾³⁾				P	
Application in Zone 2 n (TÜV) ³⁾				E	
with explosion protection (FM intrinsic safety and explosion proof) ¹⁾				H C	
with explosion protection (CSA intrinsic safety and explosion proof) ¹⁾				L C	
with explosion protection (FM + CSA for IS + XP)				N	
<u>Electrical connection / cable inlet</u>					
Screwed gland PG 13.5 ²⁾³⁾ (Adapter)				A	
Female thread M 20 x 1.5				B	
Female thread 1/2-14 NPT				C	
Han 7D plug ²⁾³⁾				D	
<u>Housing cover / display</u>					
without window (digital display covered, setting: mA)				1	
with window (digital display, visible, setting: mA)				6	
with window (digital display visible, setting: as specified in Y20				7	

Notes and “Other versions” on next page.

Other versions

Add "-Z" to order number and add short spec...	7MF4033 - - Z
Transmitter with mounting bracket of:	
- steel	A01
- stainless steel	A02
Han 7D plug (metal, gray) ³⁾	A30
Han 8U plug (instead of Han 7D) ³⁾	A31
Labeling of rating plate (instead of German):	
- English	B11
- French	B12
- Spanish	B13
- Italian	B14
Manufacturer test certificate M acc. to DIN 55 350, part 18, and according to ISO 8402	C11
Acceptance test certificate B acc. to DIN 50 049 / EN 10 204-3.1 B	C12
Works certificate according to DIN 50 049-2.2 / EN 10 204-2.2	C14
Setting upper output signal limit to 22.0 mA	D05
Acid gas version according to NACE; only with Hastelloy process diaphragm	D07
IP 68 (not with Han 7D/Han 8U plug, cable screwed gland Pg13.5 and measuring cells ≤ 914 psi)	D12
Application in zone 0 (basic device EEx ia) ³⁾	E02
Oxygen application (in oxygen measurement and Inert filling liquid: 2325 psi maximum)	E10
Range to be set, specify in clear text:	
Y01: ... to ... mbar, psi, kPa, MPa, ... (27 characters maximum)	Y01
Tag number / description	
(16 characters maximum) specify in clear text:	Y15
Tag message (27 characters maximum) specify in clear text:	Y16
Setting digital display, specify in clear text: mbar, psi, kPa, MPa, ...	Y20
Factory pre-settings other than "Y01", "Y20" and "D05" are not possible.	

Notes:¹⁾ Without cable screwed gland³⁾ Not FM approved²⁾ Not for "explosion proof" protectionScope of delivery:

Transmitter as ordered, 1 brief instruction (Leporello)

Ordering example:

Position line: 7MF4033-1EA00-1AA6-Z

B-line: A01+Y01+Y20

C-line: Y01: 145 to 290 psi

C-line: Y20+D100+D36: psi

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Application in zone 0 (basic device EEx ia) ³⁾	E02
Oxygen application (in oxygen measurement and Inert filling liquid: 2325 psi maximum)	E10
Range to be set, specify in clear text:	
Y01: ... to ... mbar, psi, kPa, MPa, ... (27 characters maximum)	Y01
Tag number / description	
(16 characters maximum) specify in clear text:	Y15
Tag message (27 characters maximum) specify in clear text:	Y16
Setting digital display, specify in clear text: mbar, psi, kPa, MPa, ...	Y20
Factory pre-settings other than "Y01", "Y20" and "D05" are not possible.	

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