

DMP 33 1

Industrial Pressure Transmitter for Low Pressure

Stainless Steel Sensor

accuracy according to IEC 60770:
standard: 0.35 % FSO
option: 0.25 / 0.1 % FSO



Nominal pressure

from 0 ... 100 mbar up to 0 ... 60 bar

Output signals

2-wire: 4 ... 20 mA

3-wire: 0 ... 20 mA / 0 ... 10 V

others on request

Special characteristic

- ☒ perfect thermal behaviour
- ☒ excellent long term stability
- ☒ pressure port
G 1/2" flush from 100 mbar

Optional versions

- ☒ IS-version
Ex ia = intrinsically safe for gases and
dusts
- ☒ SIL 2-according to
IEC 61508 / IEC 61511
- ☒ pressure sensor welded
- ☒ customer specific versions

The pressure transmitter DMP 331 can be used in all industrial areas when the medium is compatible with stainless steel 1.4404 (316 L) or 1.4435 (316 L). Additional are different elastomer seals as well as a helium tested welded version available.

The modular concept of the device allows to combine different stainless steel sensors and electronic modules with a variety of electrical and mechanical versions. Thus a diversity of variations is created, meeting almost all requirements in industrial applications.

Preferred areas of use are



Plant and Machine Engineering



Environmental Engineering
(water - sewage - recycling)



Energy Industry

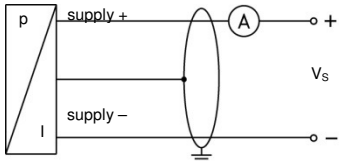
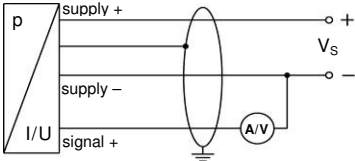

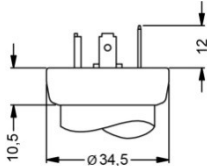
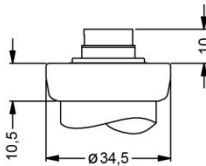
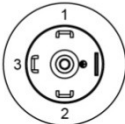
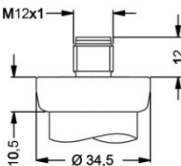
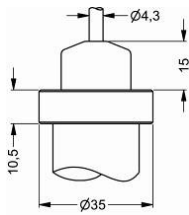
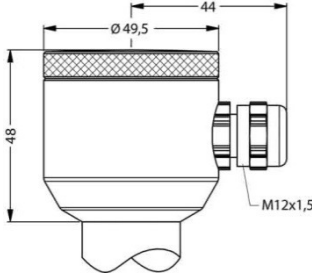
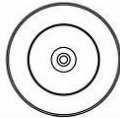
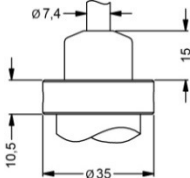


DMP 331

Industrial Pressure Transmitter

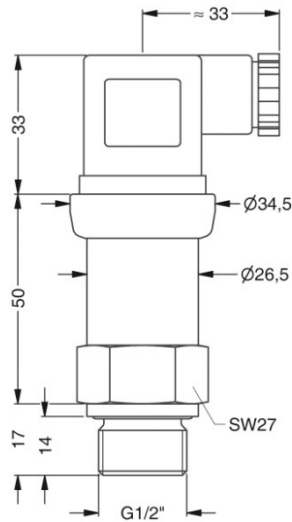


Technical Data

Miscellaneous							
Option SIL ³ 2	according to IEC 61508 / IEC 61511						
Current consumption	signal output current: max. 25 mA		signal output voltage: max. 7 mA				
Weight	approx. 200 g						
Installation position	any ⁴						
Operational life	> 100 x 10 ⁶ pressure cycles						
CE-conformity	EMC Directive: 2014/30/EU						
ATEX Directive	2014/34/EU						
³ only for 4 ... 20 mA / 2-wire, not in combination with the accuracy 0.1%							
⁴ Pressure transmitters are calibrated in a vertical position with the pressure connection down. If this position is changed on installation there can be slight deviations in the zero point for pressure ranges $P_N \leq 1$ bar.							
Wiring diagrams							
2-wire-system (current) 				3-wire-system (current / voltage) 			
Pin configuration							
Electrical connection	ISO 4400	Binder 723 (5-pin)	M12x1/metal (4-pin)	Bayonet MIL-C-26482 (10-6)		field housing	cable colours (IEC 60757)
				2-wire	3-wire		
Supply +	1	3	1	A	A	IN +	wh (white)
Supply -	2	4	2	B	D	IN -	bn (brown)
Signal + (for 3-wire)	3	1	3	-	B	OUT +	gn (green)
Shield	ground pin	5	4	pressure port			gnye (green-yellow))
Electrical connections (dimensions in mm)							
standard				option			
							
							
ISO 4400 (IP 65)				Binder Series 723 5-pin (IP 67)			
							
				cable outlet with PVC cable (IP 67) ⁵			
				cable outlet, cable with ventilation tube (IP 68) ⁵			
Bayonet MIL-C-26482 (10-6) (IP 67)				compact field housing (IP 67)			
⇒ universal field housing stainless steel 1.4404 (316 L) with cable gland M20x1.5 (ordering code 880) and other versions on request							
⁵ standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70°C)							
⁶ different cable types and lengths available, permissible temperature depends on kind of cable							

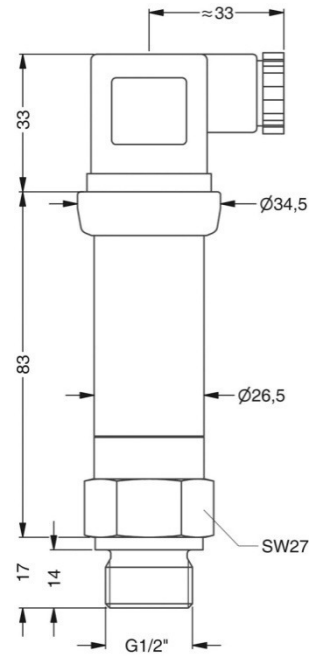
Mechanical connections (dimensions in mm)

standard



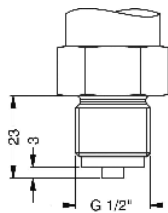
G1/2" DIN 3852
with ISO 4400

SIL- and SIL-IS-version

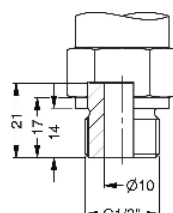


G1/2" DIN 3852
with ISO 4400

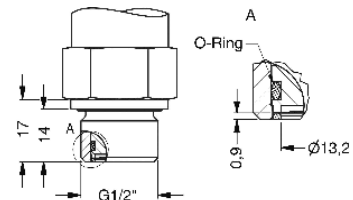
option



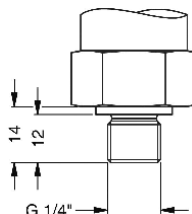
G1/2" EN 837



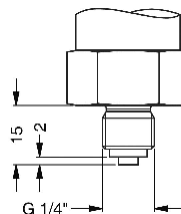
G1/2" DIN 3852 open port, $P_N \leq 40$ bar



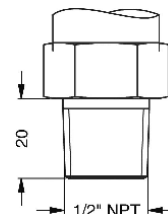
G1/2" DIN 3852
with flush sensor, $P_N \leq 40$ bar



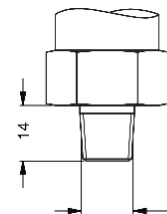
G1/4" DIN 3852



G1/4" EN 837



1/2" NPT



1/4" NPT

⇒ metric threads and other versions on request

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Ordering code DMP 331

DMP 331

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Pressure					
	gauge	1	1	0	
	absolute ¹	1	1	1	
Input					
	[bar]				
	0.10 ¹	1	0	0	0
	0.16 ¹	1	6	0	0
	0.25 ¹	2	5	0	0
	0.40	4	0	0	0
	0.60	6	0	0	0
	1.0	1	0	0	1
	1.6	1	6	0	1
	2.5	2	5	0	1
	4.0	4	0	0	1
	6.0	6	0	0	1
	10	1	0	0	2
	16	1	6	0	2
	25	2	5	0	2
	40	4	0	0	2
	60	6	0	0	2
	-1 ... 0	X	1	0	2
	customer	9	9	9	9
Output					
	4 ... 20 mA / 2-wire		1		
	0 ... 20 mA / 3-wire		2		
	0 ... 10 V / 3-wire		3		
Intrinsic safety	4 ... 20 mA / 2-wire		E		
SIL2	4 ... 20 mA / 2-wire		1S		
	SIL2 with intrinsic safety		ES		
	4 ... 20 mA / 2-wire				
	customer		9		
Accuracy					
standard for P _N ≥ 0.4 bar	0.35 %		3		
standard for P _N < 0.4 bar	0.5 %		5		
option 1 for P _N ≥ 0.4 bar	0.25 %		2		
option 2	0.1 % ²		1		
	customer		9		
Electrical connection					
	Male and female plug ISO 4400		1	0	0
	Male plug Binder series 723 (5-pin)		2	0	0
	Cable outlet with PVC cable ³		T	A	0
	Cable outlet ⁴		T	R	0
	Male plug M12x1 (4-pin) / metal		M	1	0
	Bayonet MIL-C-26482 (10-6); 2 wire		B	G	0
	Bayonet MIL-C-26482 (10-6); 3 wire		B	G	4
	Compact field housing stainless steel 1.4305		8	5	0
	customer		9	9	9
Mechanical connection					
	G1/2" DIN 3852		1	0	0
	G1/2" EN 837		2	0	0
	G1/4" DIN 3852		3	0	0
	G1/4" EN 837		4	0	0
	G1/2" DIN 3852 with flush sensor ⁵		F	0	0
	G1/2" DIN 3852 open pressure port ⁵		H	0	0
	1/2" NPT		N	0	0
	1/4" NPT		N	4	0
	customer		9	9	9
Seals					
	FKM			1	
	EPDM			3	
	without (welded version) ^{5, 6}			2	
	customer			9	
Special version					
	standard			0	0
	customer			9	9

¹ absolute pressure possible from 0.4 bar

² not in combination with SIL

³ standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70°C), others on request

⁴ cable with ventilation tube (code TR0 = PVC cable), different cable types and lengths available, price without cable

⁵ only for $P_N \leq 40$ bar

⁶ welded version only with pressure ports according to EN 837