



# DMP 339

## Industrial Pressure Transmitter

Stainless Steel Sensor

accuracy according to IEC 60770:  
0,35 % FSO

### Nominal pressure

from 0 ... 60 bar to 0 ... 600 bar

### Output signals

2-wire: 4 ... 20 mA

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

others on request

### Special characteristics

- ▶ mechanical connection: G 1/4" flush
- ▶ suitable for viscous and pasty media

### Optional versions

- ▶ IS-version  
Ex ia = intrinsically safe for gases and dusts
- ▶ several electrical connections
- ▶ customer specific versions

The DMP 339 industrial pressure transmitter features a G 1/4" flush pressure port and was designed for the use in a range of machinery including metering systems. It is ideal for measuring the pressure of viscous and pasty media, as only a small dead space is created.

Material accumulation, dripping and stringing in machinery is eliminated. This increases the efficiency and reliability of your machines.

The DMP 339 is available with various electrical connections, ensuring an excellent adaption to the application conditions.

### Preferred areas of use are:



Plant and Machine Engineering  
- especially conveyor plants and dosing systems



Hydraulics



**paab**  
TEKNO TRADING

Input pressure range <sup>1</sup>							
Nominal pressure gauge / abs.	[bar]	60	100	160	250	400	600
Overpressure	[bar]	210	210	600	600	1050	1050
Burst pressure ≥	[bar]	300	300	1100	1100	1500	1500
<sup>1</sup> Nominal pressure $P_N < 60$ bar on request							
Output signal / Supply							
Standard		2-wire: 4 ... 20 mA / $V_S = 8 \dots 32 V_{DC}$					
Option IS-protection		2-wire: 4 ... 20 mA / $V_S = 10 \dots 28 V_{DC}$					
Options 3-wire		3-wire: 0 ... 20 mA / $V_S = 14 \dots 30 V_{DC}$ 0 ... 10 V / $V_S = 14 \dots 30 V_{DC}$					
Performance							
Accuracy <sup>2</sup>		≤ ± 0.35 % FSO					
Permissible load		current 2-wire: $R_{max} = [(V_S - V_S \text{ min}) / 0.02 \text{ A}] \Omega$ current 3-wire: $R_{max} = 500 \Omega$ voltage 3-wire: $R_{min} = 10 \text{ k}\Omega$					
Influence effects		supply: 0.05 % FSO / 10 V load: 0.05 % FSO / kΩ					
Long term stability		≤ ± 0.1 % FSO / year at reference conditions					
Response time		2-wire: ≤ 10 msec 3-wire: ≤ 3 msec					
<sup>2</sup> accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)							
Thermal effects (Offset and Span)							
Tolerance band		≤ ± 1 % FSO					
in compensated range		-20 ... 85 °C					
Permissible temperatures							
Permissible temperatures		medium: -40 ... 125 °C electronics / environment: -40 ... 85 °C storage: -40 ... 100 °C					
Electrical protection							
Short-circuit protection		permanent					
Reverse polarity protection		no damage, but also no function					
Electromagnetic compatibility		emission and immunity according to EN 61326					
Mechanical stability							
Vibration		10 g RMS (25 ... 2000 Hz) according to DIN EN 60068-2-6					
Shock		100 g / 11 msec according to DIN EN 60068-2-27					
Materials							
Pressure port		stainless steel 1.4548 (17-4 PH ERS) for G1/4" flush (DIN 3852)					
Housing		stainless steel 1.4404 (316 L)					
Option compact field housing		stainless steel 1.4305 (303), cable gland brass, nickel plated others on request					
Seals		FKM others on request					
Diaphragm		stainless steel 1.4435 (316 L)					
Media wetted parts		pressure port, diaphragm					
Explosion protection (only for 4 ... 20 mA / 2-wire)							
Approvals DX19-DMP 339		IBExU 10 ATEX 1068 X / IECEx IBE 12.0027X zone 0: II 1G Ex ia IIC T4 Ga zone 20: II 1D Ex ia IIIC T 85°C Da					
Safety technical maximum values		$U_i = 28 V_{DC}$ , $I_i = 93 \text{ mA}$ , $P_i = 660 \text{ mW}$ , $C_i \approx 0 \text{ nF}$ , $L_i \approx 0 \mu\text{H}$ , $C_{iGND} \approx 27 \text{ nF}$					
Ambient temperature range		in zone 0: -20 ... 60 °C with $p_{atm}$ 0.8 bar up to 1.1 bar in zone 1 or higher: -20 ... 70 °C					
Connecting cables (by factory)		cable capacitance: signal line/shield also signal line/signal line: 160 pF/m cable inductance: signal line/shield also signal line/signal line: 1μH/m					
Miscellaneous							
Current consumption		signal output current: max. 25 mA		signal output voltage: max. 7 mA			
Weight		approx. 120 g					
Installation position		any <sup>3</sup>					
Operational life		> 100 x 10 <sup>6</sup> pressure cycles					
CE-conformity		EMC Directive: 2004/108/EC		Pressure Equipment Directive: 97/23/EC (module A) <sup>4</sup>			
ATEX Directive		94/9/EG					
<sup>3</sup> Pressure transmitters are calibrated in a vertical position with the pressure connection down.							
<sup>4</sup> This directive is only valid for devices with maximum permissible overpressure > 200 bar							

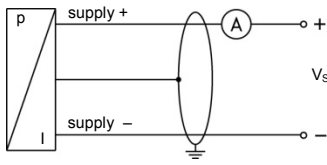
# DMP 339

Industrial Pressure Transmitter

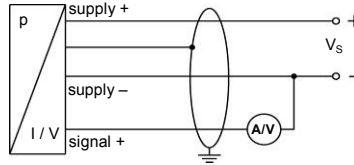
Technical Data

## Wiring diagrams

2-wire-system (current)



3-wire-system (current / voltage)

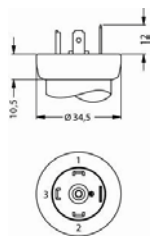


## Pin configuration

Electrical connection	ISO 4400	Binder 723 (5-pin)	M12x1 / Metal (4-pin)	field housing	cable colours (DIN 47100)
Supply +	1	3	1	IN +	wh (white)
Supply -	2	4	2	IN -	bn (brown)
Signal + (for 3-wire)	3	1	3	OUT +	gn (green)
Shield	ground pin	5	4		ye/gn (yellow / green)

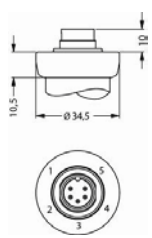
## Electrical connections (dimensions in mm)

standard

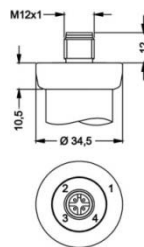


ISO 4400 (IP 65)

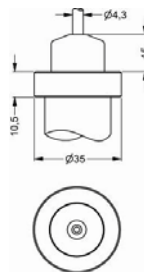
option



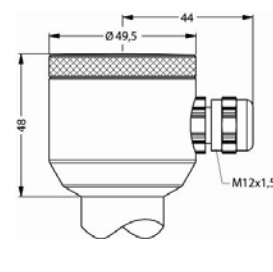
Binder Series 723 5-pin (IP 67)



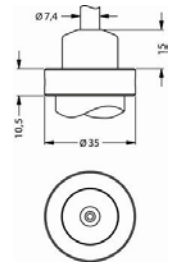
M12x1 4-pin (IP 67)



cable outlet with PVC cable (IP 67)<sup>5</sup>



compact field housing (IP 67)



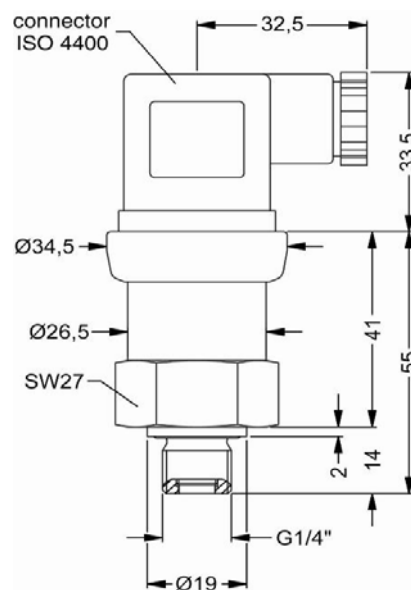
cable outlet, cable with ventilation tube (IP 68)<sup>6</sup>

⇒ universal field housing stainless steel 1.4404 (316 L) with cable gland M20x1.5 metal (ordering code 880) and other versions on request

<sup>5</sup> standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70 °C)

<sup>6</sup> different cable types and lengths available, permissible temperature depends on kind of cable

## Mechanical connections (dimensions in mm)



G1/4" flush DIN 3852

This data sheet contains product specification, properties are not guaranteed. Subject to change without notice.

## Ordering code DMP 339

**DMP 339**

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<b>Pressure</b>		gauge	1 3 5																		
		absolute	1 3 6																		
<b>Input</b>		[bar]	1																		
		60		6	0	0	2														
		100		1	0	0	3														
		160		1	6	0	3														
		250		2	5	0	3														
		400		4	0	0	3														
		600		6	0	0	3														
		customer		9	9	9	9														consult
<b>Output</b>		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													
		customer						9													consult
<b>Accuracy</b>		0.35 %						3													
		customer						9													consult
<b>Electrical connection</b>																					
		Male and female plug ISO 4400																			1 0 0
		Male plug Binder series 723 (5-pin)																			2 0 0
		Cable outlet with PVC cable <sup>2</sup>																			T A 0
		Cable outlet <sup>3</sup>																			T R 0
		Male plug M12x1 (4-pin) / metal																			M 1 0
		Compact field housing																			
		stainless steel 1.4305 (303)																			8 5 0
		customer																			9 9 9
<b>Mechanical connection</b>																					
		G1/4" DIN 3852																			
		with flush sensor																			F 0 2
		customer																			9 9 9
<b>Seals</b>																					
		FKM																			1
		customer																			9
<b>Special version</b>																					
		standard																			0 0 0
		customer																			9 9 9

<sup>1</sup> nominal pressure gauge P<sub>N</sub> < 60 bar on request  
<sup>2</sup> standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70°C), others on request  
<sup>3</sup> cable with ventilation tube (code TR0 = PVC cable), different cable types and lengths available, price without cable

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