



# **DMK 331**

## Industrial **Pressure Transmitter**

Ceramic Sensor

accuracy according to IEC 60770: 0.5 % FSO

#### **Nominal pressure**

from 0 ... 400 mbar up to 0 ... 600 bar

#### **Output signals**

2-wire: 4 ... 20 mA

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

others on request

#### **Special characteristics**

- pressure port G 1/2" flush for pasty and polluted media
- pressure port G 1/2" open port PVDF for aggressive media
- oxygen application

#### **Optional versions**

- IS-version Ex ia = intrinsically safe for gases and dusts
- SIL<sub>2</sub> according to IEC 61508 / IEC 61511
- customer specific versions

The industrial pressure transmitter DMK 331 with ceramic sensor has been especially designed for pasty, polluted or aggressive media and for oxygen applications at low pressure range.

As with all industrial pressure transmitters made by BD|SENSORS, you may choose between various electrical and mechanical connections also on DMK 331.

#### Preferred areas of use are



Plant and machine engineering



Energy industry



Environmental engineering (water - sewage - recycling)



Medical technology













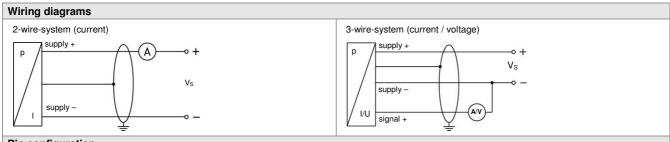






# Industrial Pressure Transmitter

Nominal pressure abs. [bar]  Overpressure [bar]  Burst pressure ≥ [bar]  Vacuum resistance  ¹ PVDF pressure port possible for nom² nominal pressure 600 bar without UL  Output signal / Supply  Standard  Option IS-protection  Options 3-wire  Performance  Accuracy ³  Permissible load  Influence effects  Long term stability  Response time  ³ accuracy according to IEC 60770 - li  Thermal effects (Offset and Spathermal error in compensated range  Permissible temperatures ⁴  ⁴ for pressure port of PVDF the minimal effection  Short-circuit protection  Reverse polarity protection  Electromagnetic compatibility  Mechanical stability  Vibration  Shock  Materials  Pressure port	- 4 7 P <sub>N</sub> ≥ 1 I minal press L certifica  2-wire 2-wire 3-wire  ≤ ± 0.5 curren voltag supply ≤ ± 0.3 2-wire limit point an) / Pei ≤ ± 0.2 -25 mediu	ssure ration  1 4	20 r 20 r 20 r 20 r 20 r 10 \ SO re:	mA / M	$V_S = V_S $	8 3 0 2 4 3 Vs mi	2 V <sub>D</sub>	.02 A titions		cu lc	urrent	: 3-wir : 3-wir : 2.05 % : ≤ 3 r	e: R <sub>m</sub>	100 200 300 < 1 ba 4 20 4 20	8 V <sub>DC</sub>	400 750 reque	est	600 <sup>2</sup>   600 <sup>2</sup>   800   1100
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Approval	IBExU			,	<b>V</b> / I	CEV	DE .	12 00	127Y									
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Safety technical maximum values	U <sub>i</sub> = 28 the su			ctions	have	an inn	er ca	apacit	ty of n	nax. 2	7 nF		hous	ing				
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Miscellaneous																		
Option SIL2 version <sup>5</sup>	accord	ding to	IEC (	61508	3 / IEC	6151												
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Current consumption	signal									loutp	ut vo	ltage:	max	. 7 m <i>P</i>	4			
Weight	approx																	
Installation position	any																	
Operational life	100 m	illion l	load c	ycles														
CE-conformity	EMC [				0/EU				Press	sure E	quipi	ment [	Direct	ive: 20	014/6	8/EU	(module	A) 6
ATEX Directive  5 only for 4 20 mA / 2-wire	2014/	34/EU																

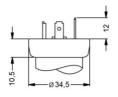


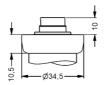
Pin configuration					
Electrical connection	ISO 4400	Binder 723 (5-pin)	M12x1 / metal (4-pin)	field housing	cable colour (IEC 60757)
Supply +	1	3	1	IN +	WH (white)
Supply –	2	4	2	IN -	BN (brown)
Signal + (only for 3-wire)	3	1	3	OUT+	GN (green)
Shield	ground pin 😩	5	4	<b>(a)</b>	GNYE (green-yellow)

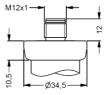
#### Electrical connections (dimensions in mm)

#### standard

#### options









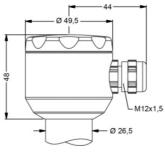


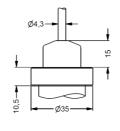


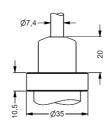
ISO 4400 (IP 65)

Binder Series 723 5-pin

M12x1 4-pin (IP 67)







compact field housing (IP 67)

cable outlet with PVC cable (IP 67) 7

cable outlet, cable with ventilation tube (IP 68) 8

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

 <sup>7</sup> standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70°C)
 8 different cable types and lengths available, permissible temperature depends on kind of cable

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### Mechanical connection (dimensions in mm) standard standard for SIL- and SIL-IS-version 33 Ø34,5 33 Ø34,5 83 **−**− Ø26,5 Ø26.5 50 SW27 SW27 17 17 4 4 G1/2" G1/2" G1/2" DIN 3852 G1/2" DIN 3852 with ISO 4400 with ISO 4400 options O-Ring <del>-</del> 4 Ø10 G 1/2 G1/2" -G1/2" EN 837 G1/2" open port G1/2" semi-flush DIN 3852; M20x1.5 9 4 5 15 4 G 1/4" G 1/4 1/2" NPT 1/4" NPT G1/4" DIN 3852 G1/4" EN 837 1/2" NPT 1/4" NPT $\ \Rightarrow$ metric threads and other versions on request <sup>9</sup> possible for nominal pressure ranges $P_N \le 25$ bar; absolute pressure ranges on request