



# DMP 331i / DMP333i LMP 331 i

Precision Pressure Transmitter / Screw-in transmitter

Stainless Steel Sensor

accuracy according to EN IEC 62828-2: 0.1 % span

### Nominal pressure

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

### **Output signal**

2-wire: 4 ... 20 mA 3-wire: 0 ... 10 V (only for DMP 331i and LMP 331i) others on request

### **Product characteristics**

- thermal error in compensated range -20 ... 80 °C: 0.2 % span TC 0.02 % span / 10K
- turn:down 10:1
- communication interface for adjusting of offset, span and damping

### **Optional versions**

- **IS-versions** Ex ia = intrinsically safe for gases and dusts
- adjustment of nominal pressure gauges (factory-provided)

The precision pressure transmitter DMP 331i and DMP 333i as well as the precision screw-in level probe LMP 331i demonstrate the further development of our industrial pressure transmitters.

The signal of the sensor is processed by the intelligent digital electronics with 16-bit A/D converter which is able to do an active temperature compensation and linearization. Due to this we are able to offer the transmitters with excellent measurement parameters and exceptionally attractive price.

#### Preferred areas of use are DMP 331i / DMP 333i



Laboratory Techniques

Energy production (gas consumption and thermal energy measurement)

### Preferred areas of use are LMP 331i



Environmental Engineering

(water / sewage / recycling)





BD SENSORS s.r.o. Hradišťská 817 CZ - 687 08 Buchlovice

Tel.: +420 572 411 011

www.bdsensors.cz info@bdsensors.cz



The company BD SENSORS s.r.o. is certified by Bureau Veritas Czech according to the standard ISO 9001.

## DMP 331i / DMP 333i / LMP 331i

Precision Pressure Transmitter / Screw-in Transmitter

**Technical Data** 

Pressure ranges DMP 331 i <sup>1</sup>								
Nominal pressure [t	bar]	0.4	1	2	4	10	20	40
gauge / absolute [b	oar]	0.4	1	2	4	10	20	40
Overpressure [b	oar]	2	5	10	20	40	80	105
Burst pressure [b	oar]	3	7,5	15	25	50	120	210
<sup>1</sup> On customer request we adjust the	dev	ice within the turn	n-down-possibil	ity by software	on the required p	ressure range.		
Vacuum ranges	orl	0.4 0.4		1 1	1 0	1	4	1 10
Overpressure	barj	-0.4 0.4	-	5	-1 Z	-1.	4	-110
Burst pressure [h	bar]	3		7.5	10	2	5	50
	Jaij	5		1.5	10	Z	0	50
Pressure ranges DMP 333 i <sup>1</sup>								
Nominal pressure [t	bar]			400	000			000
gauge / absolute [t	bar]	60		100	200	40	0	600
Overpressure [b	oar]	210		210	600	10	00	1000
Burst pressure [b	oar]	420		420	1000	12	50	1250
<sup>1</sup> On customer request we adjust the	dev	ice within the turn	n-down-possibil	ity by software	on the required p	ressure range.		
Pressure ranges LMP 331 i <sup>1</sup>								
	aarl	0.4	1	2	4	10	20	40
		4	10	20	40	100	200	400
Overpressure III	20j parl	2	5	10	20	40	80	105
Burst pressure [h	harl	3	7.5	15	25	80	120	210
<sup>1</sup> On customer request we adjust the	dev	ice within the turn	n-down-possibil	itv bv software	on the reauired p	ressure range.	120	210
				., .,		g_		
Output signal / Supply								
Standard		2-wire: 4	20 mA / \	√s = 12 36	VDC			
Option Exi, MINES – M1		2-wire: 4	20 mA / \	√ <sub>s</sub> = 14 28	V <sub>DC</sub>			
Options analog signal		2-wire: 4	20 mA with c	ommunicatio	n interface <sup>2</sup>			
		3-wire*: 0	10 V / V	√s = 14 36	V <sub>DC</sub>			
		0	10 V with co	mmunication	interface <sup>2</sup>			
* only for DMP 331i and LMP 331i								
<sup>2</sup> only possible with el. connection Bi	nder	series 723 (7-pin	1)					
Performance								
A								
Accuracy <sup>3</sup>		≤ ± 0.1 % spa	n					
Accuracy <sup>3</sup> performance after turn-down		≤ ± 0.1 % spai	n					
Accuracy <sup>3</sup> performance after turn-down - TD ≤ 5:1 - TD > 5:1		$\leq \pm 0.1$ % span no change of a	n accuracy <sup>4</sup>	wing formula	(for nominal pr		< 0.40 bar soo	2 noto 5);
Accuracy <sup>3</sup> performance after turn-down - TD ≤ 5:1 - TD > 5:1		$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm 10.1 \pm 0.01$	n accuracy <sup>4</sup> use the follo 15 x turn-dow	wing formula	(for nominal pre	essure ranges	≤ 0.40 bar see	e note 5):
Accuracy <sup>3</sup> performance after turn-down - TD ≤ 5:1 - TD > 5:1		$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01]$ with turn-dowr	n accuracy <sup>4</sup> use the follo 15 x turn-dow n = nominal c	wing formula 'n] % span pressure rang	(for nominal pre	essure ranges qe	≤ 0.40 bar see	e note 5):
Accuracy <sup>3</sup> performance after turn-down - TD ≤ 5:1 - TD > 5:1		$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turn	n accuracy <sup>4</sup> i use the follo 15 x turn-dow n = nominal p n-down of 10	wing formula n] % span pressure rang :1 following a	(for nominal pre e / adjusted ran ccuracy is calcu	essure ranges ge ılated:	≤ 0.40 bar see	e note 5):
Accuracy³ performance after turn-down - TD ≤ 5:1 - TD > 5:1		$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turn $\leq \pm (0.1 + 0.01$	n accuracy <sup>4</sup> use the follo 15 x turn-dow n = nominal p n-down of 10 15 x 10) % sp	wing formula n] % span pressure rang :1 following a pan i.e. accur	(for nominal pre e / adjusted ran ccuracy is calcu acy is ≤ ± 0.25	essure ranges ge Jlated: % span	≤ 0.40 bar see	e note 5):
Accuracy³ performance after turn-down - TD ≤ 5:1 - TD > 5:1 Permissible load		$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turr $\leq \pm (0.1 + 0.01$ current 2-wire:	n accuracy <sup>4</sup> use the follo 15 x turn-dow n = nominal p n-down of 10 15 x 10) % sp : R <sub>max</sub> = [(V <sub>S</sub>	wing formula n] % span pressure rang :1 following a pan i.e. accur . – V <sub>s</sub> min) / 0	(for nominal pre e / adjusted ran ccuracy is calcι acy is ≤ ± 0.25 .02 A] Ω volt	essure ranges ge Jlated: % span age 3-wire:_R	≤ 0.40 bar see min = 10 kΩ	e note 5):
Accuracy <sup>3</sup> performance after turn-down - TD ≤ 5:1 - TD > 5:1 Permissible load Influence effects		$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turn $\leq \pm (0.1 + 0.01$ current 2-wire: supply: 0.0	n accuracy <sup>4</sup> use the follo 15 x turn-dow n = nominal p n-down of 10 15 x 10) % sp : R <sub>max</sub> = [(V <sub>s</sub> 05 % span / 2	wing formula n] % span pressure rang :1 following a pan i.e. accur .– V <sub>s</sub> min) / 0 10 V	(for nominal pre e / adjusted ran ccuracy is calcu acy is ≤ ± 0.25 .02 A] Ω volt loa	essure ranges ge Jlated: % span age 3-wire: R ad: 0.05 %	≤ 0.40 bar see min = 10 kΩ span / kΩ	e note 5):
Accuracy <sup>3</sup> performance after turn-down - TD ≤ 5:1 - TD > 5:1 Permissible load Influence effects Long term stability		$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turn $\leq \pm (0.1 + 0.01$ current 2-wire: supply: 0.0 $\leq \pm (0.1 \times turn)$	n accuracy <sup>4</sup> use the follo 15 x turn-down n = nominal p n-down of 10 15 x 10) % sp : R <sub>max</sub> = [(V <sub>s</sub> 05 % span / -down) % spa	wing formula n] % span pressure rango 1 following a pan i.e. accur - V <sub>s</sub> min) / 0 10 V an / year	(for nominal pre e / adjusted ran ccuracy is calcu acy is ≤ ± 0.25 .02 A] Ω volt loa	essure ranges ge Jlated: % span age 3-wire: R ad: 0.05 %	≤ 0.40 bar see c <sub>min</sub> = 10 kΩ span / kΩ	e note 5):
Accuracy <sup>3</sup> performance after turn-down - TD ≤ 5:1 - TD > 5:1 Permissible load Influence effects Long term stability Response time		$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turn $\leq \pm (0.1 + 0.01$ current 2-wire: supply: 0.0 $\leq \pm (0.1 \times turn-$ current output	n accuracy <sup>4</sup> use the follo 15 x turn-down n = nominal p n-down of 10 15 x 10) % sp $R_{max} = [(V_s)$ 05 % span / -down) % spa 420 mA	wing formula n] % span pressure rang :1 following a pan i.e. accur :- V <sub>s</sub> min) / 0 10 V an / year . (2-wire)	(for nominal pre e / adjusted ran ccuracy is calcι acy is ≤ ± 0.25 .02 A] Ω volt loa 5ms	essure ranges ge Jlated: % span age 3-wire: R ad: 0.05 %	≤ 0.40 bar see c <sub>min</sub> = 10 kΩ span / kΩ	e note 5):
Accuracy <sup>3</sup> performance after turn-down - TD ≤ 5:1 - TD > 5:1 Permissible load Influence effects Long term stability Response time		$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turn $\leq \pm (0.1 + 0.01$ current 2-wire: supply: 0.0 $\leq \pm (0.1 \times turn-$ current output voltage output	n accuracy <sup>4</sup> use the follo 15 x turn-dow n = nominal p n-down of 10 15 x 10) % sp : R <sub>max</sub> = [(V <sub>s</sub> 05 % span / -down) % spa 420 mA t 0 10 V	wing formula n] % span pressure rang :1 following a pan i.e. accur :- V <sub>s</sub> min) / 0 10 V an / year . (2-wire)	(for nominal pre e / adjusted ran ccuracy is calct acy is ≤ ± 0.25 .02 A] Ω volt loa 5ms 25 ms	essure ranges ge Jlated: % span age 3-wire: R ad: 0.05 %	≤ 0.40 bar see amin = 10 kΩ span / kΩ	e note 5):
Accuracy <sup>3</sup> performance after turn-down - TD ≤ 5:1 - TD > 5:1 Permissible load Influence effects Long term stability Response time Adjustability		$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turn $\leq \pm (0.1 + 0.01$ current 2-wire: supply: 0.0 $\leq \pm (0.1 \times turn-$ current output voltage output configuration c = electronic de	n accuracy <sup>4</sup> use the follo 15 x turn-down n = nominal p n-down of 10 15 x 10) % sp : R <sub>max</sub> = [(V <sub>s</sub> 05 % span / -down) % spa 420 mA t 0 10 V of following p amping 0	wing formula n] % span pressure rang tan i.e. accur - V <sub>s</sub> min) / 0 10 V an / year . (2-wire) arameters po	(for nominal pre curacy is calcu acy is ≤ ± 0.25 .02 A] Ω volt loa 5ms 25 ms ssible (interface	essure ranges ge Ilated: % span age 3-wire: R ad: 0.05 %	≤ 0.40 bar see comin = 10 kΩ span / kΩ cessary <sup>5</sup> ):	e note 5):
Accuracy <sup>3</sup> performance after turn-down - TD ≤ 5:1 - TD > 5:1 Permissible load Influence effects Long term stability Response time Adjustability		$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turn $\leq \pm (0.1 + 0.01$ current 2-wire: supply: 0.0 $\leq \pm (0.1 \times turn-$ current output voltage output configuration c - electronic da - offset: 09	n accuracy <sup>4</sup> use the follo 15 x turn-dow n = nominal p n-down of 10 15 x 10) % sp : R <sub>max</sub> = [(V <sub>s</sub> 05 % span / -down) % spa 420 mA t 0 10 V of following p amping: 0 20 % span	wing formula n] % span ressure rang tan i.e. accur - V <sub>s</sub> min) / 0 10 V an / year . (2-wire) arameters po 100 sec	(for nominal pre e / adjusted ran ccuracy is calcu acy is ≤ ± 0.25 .02 A] Ω volt loa 5ms 25 ms ssible (interface	essure ranges ge Jlated: % span age 3-wire: R ad: 0.05 %	≤ 0.40 bar see comin = 10 kΩ span / kΩ cessary <sup>5</sup> ):	e note 5):
Accuracy <sup>3</sup> performance after turn-down - TD ≤ 5:1 - TD > 5:1 Permissible load Influence effects Long term stability Response time Adjustability		$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turn $\leq \pm (0.1 + 0.01$ current 2-wire: supply: 0.0 $\leq \pm (0.1 \times \text{turn-}$ current output voltage output configuration c - electronic da - offset: 0 9 - turn down of	n accuracy <sup>4</sup> use the follo 15 x turn-dow n = nominal p n-down of 10 15 x 10) % sp : R <sub>max</sub> = [(Vs 05 % span / -down) % spa 420 mA t 0 10 V of following p amping: 0 20 % span f span: max.	wing formula n] % span ressure rangu :1 following a aan i.e. accur :- V <sub>s</sub> min) / 0 10 V an / year . (2-wire) arameters po 100 sec 10:1	(for nominal pre e / adjusted ran ccuracy is calcu acy is ≤ ± 0.25 .02 A] Ω volt loa 5ms 25 ms 25 ms ssible (interface	essure ranges ge Jlated: % span age 3-wire: R ad: 0.05 %	≤ 0.40 bar see g <sub>min</sub> = 10 kΩ span / kΩ cessary <sup>5</sup> ):	e note 5):
Accuracy <sup>3</sup> performance after turn-down - TD ≤ 5:1 - TD > 5:1 Permissible load Influence effects Long term stability Response time Adjustability <sup>3</sup> accuracy according to EN IEC 6283		$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turn $\leq \pm (0.1 + 0.01$ current 2-wire: supply: 0.0 $\leq \pm (0.1 \times turn-current outputvoltage outputconfiguration c- electronic daoffset: 09- turn down of$	n accuracy <sup>4</sup> use the follo 15 x turn-down n = nominal p n-down of 10 15 x 10) % sp : R <sub>max</sub> = [(V <sub>s</sub> 05 % span / -down) % span 420 mA t 0 10 V of following p amping: 0 00 % span f span: max. tment (non-line	wing formula n] % span ressure rangu i following a aan i.e. accur - V <sub>s</sub> min) / 0 10 V an / year . (2-wire) arameters po 100 sec 10:1 arity, hysteresis	(for nominal pre e / adjusted ran ccuracy is calcu acy is ≤ ± 0.25 .02 A] Ω volt loa 5ms 25 ms ssible (interface s, repeatability)	essure ranges ge Jlated: % span age 3-wire: R ad: 0.05 %	≤ 0.40 bar see g <sub>min</sub> = 10 kΩ span / kΩ cessary <sup>5</sup> ):	e note 5):
Accuracy <sup>3</sup> performance after turn-down - TD ≤ 5:1 - TD > 5:1 Permissible load Influence effects Long term stability Response time Adjustability <sup>3</sup> accuracy according to EN IEC 628: <sup>4</sup> except nominal pressure ranges ≤	28-2-	$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turn $\leq \pm (0.1 + 0.01$ current 2-wire: supply: 0.0 $\leq \pm (0.1 \times \text{turn-}$ current output voltage output configuration c - electronic da - offset: 09 - turn down of - limit point adjust	n accuracy <sup>4</sup> use the follo 15 x turn-down n = nominal p n-down of 10 15 x 10) % sp : R <sub>max</sub> = [(Vs 05 % span / -down) % spa 420 mA t 0 10 V of following p amping: 0 00 % span f span: max. tment (non-line alculation of acc	wing formula n] % span ressure range an i.e. accur $-V_s min) / 0$ 10 V an / year (2-wire) arameters po 100 sec 10:1 arity, hysteresis curacy is as foll	(for nominal pre- e / adjusted ran ccuracy is calcu acy is $\leq \pm 0.25$ .02 A] $\Omega$ volt loa 5ms 25 ms ssible (interface s, repeatability) ows:	essure ranges ge Jated: % span age 3-wire: R ad: 0.05 %	≤ 0.40 bar see min = 10 kΩ span / kΩ cessary ⁵):	e note 5):
Accuracy <sup>3</sup> performance after turn-down - TD $\leq$ 5:1 - TD > 5:1 Permissible load Influence effects Long term stability Response time Adjustability <sup>3</sup> accuracy according to EN IEC 628: <sup>4</sup> except nominal pressure ranges $\leq$ $\leq \pm (0.1 + 0.02 \times turn-down) \%$ spai <sup>5</sup> software, interface, and cable have	28-2- 0.40 n e.go	$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turn $\leq \pm (0.1 + 0.01$ current 2-wire: supply: 0.0 $\leq \pm (0.1 \times turn-$ current output voltage output configuration c - electronic da - offset: 0 9 - turn down of - limit point adjust D bar; for these ca - ordred senara	n accuracy <sup>4</sup> use the follo 15 x turn-down n = nominal p n-down of 10 15 x 10) % sp $R_{max} = [(V_s)$ 05 % span / -down) % span 420 mA t 0 10 V of following p amping: 0 00 % span f span: max. tment (non-line alculation of acc 1: $\leq \pm (0.1 + 0.0)$	wing formula m] % span ressure rangu- the following a pan i.e. accur $-V_s min) / 0$ 10 V an / year (2-wire) arameters po 100 sec 10:1 arity, hysteresis curacy is as foll porporpriate for l	(for nominal pre- e / adjusted ran ccuracy is calcu acy is $\leq \pm 0.25$ .02 A] $\Omega$ volt loa 5ms 25 ms ssible (interface s, repeatability) ows: <i>i.e. accuracy is </i> $\leq$ <i>Windows</i> <sup>®</sup> 95 98	essure ranges ge Jlated: % span age 3-wire: R ad: 0.05 % e / software ne ± 0.16 % span 2000 NT Versi	≤ 0.40 bar see $g_{min} = 10 kΩ$ span / kΩ cessary <sup>5</sup> ):	and XP)
Accuracy <sup>3</sup> performance after turn-down - TD $\leq$ 5:1 - TD > 5:1 Permissible load Influence effects Long term stability Response time Adjustability <sup>3</sup> accuracy according to EN IEC 628: <sup>4</sup> except nominal pressure ranges $\leq$ $\leq \pm (0.1 + 0.02 \times turn-down) \%$ spai <sup>5</sup> software, interface, and cable have Thermal effects (Offset and S)	28-2- 0.4( n e.g to b man)	$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turn $\leq \pm (0.1 + 0.01$ current 2-wire: supply: 0.0 $\leq \pm (0.1 \times turn-$ current output voltage output configuration c - electronic da - offset: 0 9 - turn down of - limit point adjust bar; for these ca turn-down of 3:1 e ordered separat	n accuracy <sup>4</sup> use the follo 15 x turn-down n = nominal p n-down of 10 15 x 10) % sp $R_{max} = [(V_s)$ 05 % span / -down) % span 420 mA to 0 10 V of following p amping: 0 00 % span f span: max. trenet (non-line alculation of acc ts $t \in (0.1 + 0.0.)$	wing formula m] % span ressure rangu- t following a pan i.e. accur $-V_s min) / 0$ 10 V an / year (2-wire) arameters po 100 sec 10:1 arity, hysteresis curacy is as foll $02 \times 3$ % span appropriate for t	(for nominal pre- e / adjusted ran ccuracy is $\leq \pm 0.25$ .02 A] $\Omega$ volt loa 5ms 25 ms ssible (interface s, repeatability) ows: <i>i.e. accuracy is</i> $\leq$ <i>Windows</i> <sup>®</sup> 95, 98,	essure ranges ge Jlated: % span age 3-wire: R ad: 0.05 % e / software ne ± 0.16 % span 2000, NT Versid	≤ 0.40 bar see min = 10 kΩ span / kΩ cessary <sup>5</sup> ): on 4.0 or higher,	and XP)
Accuracy <sup>3</sup> performance after turn-down - TD $\leq$ 5:1 - TD > 5:1 Permissible load Influence effects Long term stability Response time Adjustability <sup>3</sup> accuracy according to EN IEC 628: <sup>4</sup> except nominal pressure ranges $\leq$ $\leq \pm (0.1 + 0.02 \times turn-down) % spat \leq software, interface, and cable haveThermal effects (Offset and S)Tolerance band [9/6 set$	28-2- 0.4( n e.g to b pan)	$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turn $\leq \pm (0.1 + 0.01$ current 2-wire: supply: 0.0 $\leq \pm (0.1 \times \text{turn-}$ current output voltage output configuration c - electronic da - offset: 0 9 - turn down of - limit point adjust D bar; for these ca bar; for these ca - supply: 0.1 - turn-down of 3.1 e ordered separate / Permissible $\leq \pm (0.2 \times \text{turn-})$	n accuracy <sup>4</sup> use the follo 15 x turn-down n = nominal p n-down of 10 15 x 10) % sp $\mathbb{R}_{max} = [(V_s)$ 05 % span / -down) % span 420 mA t 0 10 V of following p amping: 0 00 % span f span: max. tment (non-line alculation of action tis $\pm (0.1 + 0.0)$ tely (software a temperature i-down)	wing formula m] % span pressure range 1 following a pan i.e. accur $-V_s min) / 0$ 10 V an / year (2-wire) arameters po 100 sec 10:1 arity, hysteresis curacy is as foll 2 x 3 ) % span appropriate for N <b>S</b>	(for nominal pre- e / adjusted ran ccuracy is calcu acy is $\leq \pm 0.25$ .02 A] $\Omega$ volt loa 5ms 25 ms ssible (interface s, repeatability) ows: <i>i.e. accuracy is <math>\leq</math></i> <i>Vindows</i> <sup>®</sup> 95, 98,	essure ranges ge ulated: % span age 3-wire: R ad: 0.05 % e / software ne ± 0.16 % span 2000, NT Versid	≤ 0.40 bar see $g_{min} = 10 k\Omega$ span / kΩ cessary <sup>5</sup> ): on 4.0 or higher,	and XP)
Accuracy <sup>3</sup> performance after turn-down - TD $\leq$ 5:1 - TD > 5:1 Permissible load Influence effects Long term stability Response time Adjustability <sup>3</sup> accuracy according to EN IEC 628: <sup>4</sup> except nominal pressure ranges $\leq$ $\leq$ ± (0.1 + 0.02 x turn-down) % spat $\leq$ software, interface, and cable have <b>Thermal effects (Offset and S)</b> Tolerance band [% sp	28-2- 0 .4( n e.gg t to b <b>pan</b> ]	$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turn $\leq \pm (0.1 + 0.01$ current 2-wire: supply: 0.0 $\leq \pm (0.1 \times turn-$ current output voltage output configuration c - electronic da - offset: 0 9 - turn down of - limit point adjust D bar; for these ca bar; for these ca - supply: 0.1 $\leq \pm (0.2 \times turn)$ in compensate	n accuracy <sup>4</sup> use the follo 15 x turn-down n = nominal p n-down of 10 15 x 10) % sp $\mathbb{R}_{max} = [(V_s)$ 05 % span / -down) % span 420 mA t 0 10 V of following p amping: 0 00 % span f span: max. tment (non-line alculation of action tis $\pm (0.1 + 0.0)$ tely (software a temperature i-down) ed range	wing formula m] % span pressure range 1 following a pan i.e. accur $-V_s min) / 0$ 10 V an / year (2-wire) arameters po 100 sec 10:1 arity, hysteresis curacy is as foll 2 x 3 ) % span appropriate for N ps -20 80 °	(for nominal pre- e / adjusted ran ccuracy is calcu acy is $\leq \pm 0.25$ .02 A] $\Omega$ volt loa 5ms 25 ms ssible (interface s, repeatability) ows: <i>i.e. accuracy is <math>\leq</math></i> <i>Vindows</i> <sup>®</sup> 95, 98,	essure ranges ge ulated: % span age 3-wire: R ad: 0.05 % e / software ne ± 0.16 % span 2000, NT Versid	≤ 0.40 bar see $g_{min} = 10 k\Omega$ span / kΩ cessary <sup>5</sup> ): on 4.0 or higher,	and XP)
Accuracy <sup>3</sup> performance after turn-down - TD $\leq$ 5:1 - TD > 5:1 Permissible load Influence effects Long term stability Response time Adjustability <sup>3</sup> accuracy according to EN IEC 628: <sup>4</sup> except nominal pressure ranges $\leq$ $\leq \pm (0.1 + 0.02 \times turn-down) % spat \leq software, interface, and cable haveThermal effects (Offset and S)Tolerance band [% spat / 10$	28-2- 0 .4( n e.g pan) an]	$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turn $\leq \pm (0.1 + 0.01$ current 2-wire: supply: 0.0 $\leq \pm (0.1 \times turn-current outputvoltage outputconfiguration of- electronic da- offset: 0 9- turn down ofbar; for these cabar; for these cabar; for these cacurrend separatebar; for these caturn-down of 3:1e ordered separate\leq \pm (0.2 \times turn-in compensate\pm (0.02 \times turn-$	n accuracy <sup>4</sup> use the follo 15 x turn-down n = nominal p n-down of 10 15 x 10) % sp $\mathbb{R}_{max} = [(V_s)$ 05 % span / -down) % span 420 mA t 0 10 V of following p amping: 0 00 % span f span: max. tment (non-line alculation of acc 1: s ± (0.1 + 0.0 tely (software a temperature i-down) ed range -down)	wing formula m] % span pressure range 1 following a pan i.e. accur $-V_s min) / 0$ 10 V an / year (2-wire) arameters po 100 sec 10:1 arity, hysteresis curacy is as foll 22 x 3 ) % span appropriate for V as -20 80 °	(for nominal pre- e / adjusted ran ccuracy is calcu acy is $\leq \pm 0.25$ .02 A] $\Omega$ volt loa 5ms 25 ms ssible (interface s, repeatability) ows: i.e. accuracy is $\leq$ Windows® 95, 98,	essure ranges ge Jlated: % span age 3-wire: R ad: 0.05 % e / software ne ± 0.16 % span 2000, NT Versid	≤ 0.40 bar see $g_{min} = 10 k\Omega$ span / kΩ cessary <sup>5</sup> ): on 4.0 or higher,	e note 5):
Accuracy <sup>3</sup> performance after turn-down - TD $\leq$ 5:1 - TD > 5:1 Permissible load Influence effects Long term stability Response time Adjustability <sup>3</sup> accuracy according to EN IEC 628: <sup>4</sup> except nominal pressure ranges $\leq$ $\leq \pm (0.1 + 0.02 \times turn-down) % spat \leq software, interface, and cable haveThermal effects (Offset and S)Tolerance band [% span / 10$	28-2- 0.4( n e.g to b <b>pan</b> ) an]	$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turn $\leq \pm (0.1 + 0.01$ current 2-wire: supply: 0.0 $\leq \pm (0.1 \times turn-current outputvoltage outputconfiguration of- electronic da- offset: 0 9- turn down ofbar; for these cal-turn-down of 3:1e ordered separateI Permissible\leq \pm (0.2 \times turn-in compensate$	n accuracy <sup>4</sup> use the follo 15 x turn-down n = nominal p n-down of 10 15 x 10) % sp $\mathbb{R}_{max} = [(V_s)$ 05 % span / -down) % span 420 mA 010 V of following p amping: 0 00 % span f span: max. tment (non-line alculation of acc 1: $\leq \pm (0.1 + 0.0)$ tely (software a temperature i-down) ed range -down) ed range	wing formula m] % span pressure range 1 following a pan i.e. accur $-V_s min) / 0$ 10 V an / year (2-wire) arameters po 100 sec 10:1 arity, hysteresis curacy is as foll 22 x 3 ) % span appropriate for V sec -20 80 °	(for nominal pre- e / adjusted ran ccuracy is calcu acy is $\leq \pm 0.25$ .02 A] $\Omega$ volt loa 5ms 25 ms ssible (interface s, repeatability) ows: i.e. accuracy is $\leq$ Windows® 95, 98, C	essure ranges ge Jlated: % span age 3-wire: R ad: 0.05 % e / software ne ± 0.16 % span 2000, NT Versid	≤ 0.40 bar see $g_{min} = 10 k\Omega$ span / kΩ cessary <sup>5</sup> ): on 4.0 or higher,	e note 5):
Accuracy <sup>3</sup> performance after turn-down - TD $\leq$ 5:1 - TD > 5:1 Permissible load Influence effects Long term stability Response time Adjustability <sup>3</sup> accuracy according to EN IEC 628: <sup>4</sup> except nominal pressure ranges $\leq$ $\leq \pm (0.1 + 0.02 \times turn-down) % spai 5 software, interface, and cable have Thermal effects (Offset and Sj Tolerance band [% span / 10 Permissible temperatures$	28-2- 0.4( n e.g pan) an] ) K]	$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turn $\leq \pm (0.1 + 0.01$ current 2-wire: supply: 0.0 $\leq \pm (0.1 \times turn-$ current output voltage output configuration of - electronic da - offset: 0 9 - turn down of <i>imit point adjust</i> <i>bar; for these</i> ca <i>iturn-down of 3:1</i> e ordered separate <i>f</i> <b>Permissible</b> $\leq \pm (0.2 \times turn-in compensateStandard prod$	n accuracy <sup>4</sup> use the follo 15 x turn-down n = nominal p n-down of 10 15 x 10) % sp $R_{max} = [(V_s)$ 05 % span / -down) % span 420 mA 010 V of following p amping: 0 00 % span f span: max. tment (non-line alculation of acc 1: $\leq \pm (0.1 + 0.0)$ tely (software a temperature -down) ed range duct: medium	wing formula m] % span pressure range 1 following a pan i.e. accur $-V_s min) / 0$ 10 V an / year (2-wire) arameters po 100 sec 10:1 arity, hysteresis curacy is as foll 22 x 3 ) % span appropriate for N as -20 80 ° -25 125 °	(for nominal pre- e / adjusted ran ccuracy is calcu acy is $\leq \pm 0.25$ .02 A] $\Omega$ volt loa 5ms 25 ms ssible (interface s, repeatability) ows: i.e. accuracy is $\leq$ Windows® 95, 98, C C C / electronics /	essure ranges ge Jlated: % span age 3-wire: R ad: 0.05 % e / software ne ± 0.16 % span 2000, NT Versid	≤ 0.40 bar see $g_{min} = 10 k\Omega$ span / kΩ cessary <sup>5</sup> ): on 4.0 or higher, -25 85 °C / s	e note 5): and XP) storage: -40
Accuracy <sup>3</sup> performance after turn-down - TD $\leq$ 5:1 - TD > 5:1 Permissible load Influence effects Long term stability Response time Adjustability <sup>3</sup> accuracy according to EN IEC 628: <sup>4</sup> except nominal pressure ranges $\leq$ $\leq \pm (0.1 + 0.02 \times turn-down) % spai 5 software, interface, and cable have Thermal effects (Offset and Sj Tolerance band [% spa / 10 Permissible temperatures$	28-2- 0.4( n e.g pan) an] ) K]	$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turn $\leq \pm (0.1 + 0.01$ current 2-wire: supply: 0.0 $\leq \pm (0.1 \times turn-current outputvoltage outputconfiguration of- electronic da- offset: 0 9- turn down oflimit point adjustbar; for these caiturn-down of 3:1e ordered separatef (0.02 x turn-in compensateStandard prod100 °C*$	n accuracy <sup>4</sup> use the follo 15 x turn-down n = nominal p n-down of 10 15 x 10) % sp $R_{max} = [(V_s)$ 05 % span / -down) % span 420 mA to 0 10 V of following p amping: 0 00 % span f span: max. tment (non-line alculation of acc 1: $\leq \pm (0.1 + 0.0)$ temperature -down) ed range duct: medium	wing formula m] % span pressure range 1 following a pan i.e. accur $-V_s min) / 0$ 10 V an / year (2-wire) arameters po 100 sec 10:1 arity, hysteresis curacy is as foll 22 x 3 ) % span appropriate for N 25 80 ° -20 80 °	(for nominal pre- e / adjusted ran ccuracy is calcu acy is $\leq \pm 0.25$ .02 A] $\Omega$ volt loa 5ms 25 ms ssible (interface s, repeatability) ows: i.e. accuracy is $\leq$ Windows <sup>®</sup> 95, 98, C C C / electronics /	essure ranges ge Jlated: % span age 3-wire: R ad: 0.05 % e / software ne ± 0.16 % span 2000, NT Versid	≤ 0.40 bar see $g_{min} = 10 k\Omega$ span / kΩ cessary <sup>5</sup> ): on 4.0 or higher, -25 85 °C / s	and XP)
Accuracy³         performance after turn-down         - TD ≤ 5:1         - TD > 5:1         Permissible load         Influence effects         Long term stability         Response time         Adjustability         ³ accuracy according to EN IEC 628:         4 except nominal pressure ranges ≤         ≤ ± (0.1 + 0.02 x turn-down) % spai         ⁵ software, interface, and cable have         Thermal effects (Offset and S)         Tolerance band       [% span / 10]         Permissible temperatures	28-2- 0.4( n e.g pan) an] ) K]	$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turn $\leq \pm (0.1 + 0.01$ current 2-wire: supply: 0.0 $\leq \pm (0.1 \times turn-current outputvoltage outputconfiguration of- electronic da- offset: 0 9- turn down of- timit point adjustbar; for these ca- turn-down of 3:1e ordered separate/ Permissible\leq \pm (0.2 \times turn-in compensateStandard prod100 °C*$	n accuracy <sup>4</sup> use the follo 15 x turn-down n = nominal p n-down of 10 15 x 10) % sp $\mathbb{R}_{max} = [(V_s)$ 05 % span / -down) % span 420 mA to 010 V of following p amping: 0 00 % span f span: max. tment (non-line alculation of acc 1: $\leq \pm (0.1 + 0.0)$ tely (software a temperature -down) ed range -down) ed range duct: medium : -20 60 °C	wing formula m] % span pressure range 1 following a pan i.e. accur $-V_s min) / 0$ 10 V an / year (2-wire) arameters po 100 sec 10:1 arity, hysteresis curacy is as foll 22 x 3 ) % span appropriate for 1 25 80 ° -20 80 ° with patm 0,8	(for nominal pre- e / adjusted ran ccuracy is calcu acy is $\leq \pm 0.25$ .02 A] $\Omega$ volt loa 5ms 25 ms ssible (interface s, repeatability) ows: i.e. accuracy is $\leq$ Windows® 95, 98, C C C / electronics / bar up to 1,1 ba	essure ranges ge Jlated: % span age 3-wire: R ad: 0.05 % e / software ne ± 0.16 % span 2000, NT Versio 2000, NT Versio c environment: ar in zone	≤ 0.40 bar see $g_{min} = 10 k\Omega$ span / kΩ cessary <sup>5</sup> ): on 4.0 or higher, -25 85 °C / s 1 or higher: -20	and XP)
Accuracy <sup>3</sup> performance after turn-down - TD ≤ 5:1 - TD > 5:1 Permissible load Influence effects Long term stability Response time Adjustability <sup>3</sup> accuracy according to EN IEC 628: <sup>4</sup> except nominal pressure ranges ≤ ≤ ± (0.1 + 0.02 x turn-down) % spat <sup>5</sup> software, interface, and cable have <b>Thermal effects (Offset and Sj</b> Tolerance band [% spather for spat	28-2- 0.4( n e.g to b <b>pan</b> ) an]	$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turn $\leq \pm (0.1 + 0.01$ current 2-wire: supply: 0.0 $\leq \pm (0.1 \times turn-current outputvoltage outputconfiguration of- electronic da- offset: 0 9- turn down of- limit point adjustb bar; for these ca- turn-down of 3:1e ordered separate\pm (0.02 \times turn-in compensate\pm (0.02 \times turn-in compensateStandard prod100 °C*Exi: in zone 0:Ex (MINES - M$	n accuracy <sup>4</sup> use the follo 15 x turn-down n = nominal p n-down of 10 15 x 10) % sp $\mathbb{R}_{max} = [(V_s)$ 05 % span / -down) % span 420 mA to 010 V of following p amping: 0 00 % span f span: max. tment (non-line alculation of acc 1: $\leq \pm (0.1 + 0.0)$ tely (software a temperature i-down) ed range -down) ed range duct: medium : -20 60 °C M1): Medium:	wing formula n] % span pressure range 1 following a pan i.e. accur $-V_s min) / 0$ 10 V an / year (2-wire) arameters po 100 sec 10:1 arity, hysteresis curacy is as foll 22 x 3 ) % span appropriate for 1 25 -20 80 ° -20 80 ° -20 80 ° -20 80 ° -20 80 °	(for nominal pre- e / adjusted ran ccuracy is calcu acy is $\leq \pm 0.25$ .02 A] $\Omega$ volt loa 5ms 25 ms ssible (interface s, repeatability) ows: <i>i.e.</i> accuracy is $\leq$ Windows <sup>®</sup> 95, 98, C C C / electronics / bar up to 1,1 ba transmitter: -20	essure ranges ge Jlated: % span age 3-wire: R ad: 0.05 % e / software ne ± 0.16 % span 2000, NT Versid 2000, NT Versid c environment: ar in zone 065 °C / stoo	≤ 0.40 bar see min = 10 kΩ span / kΩ cessary <sup>5</sup> ): on 4.0 or higher, -25 85 °C / s 1 or higher: -21 rage: -2570	e note 5): and XP) storage: -40 0 65 °C °C
Accuracy³         performance after turn-down         - TD ≤ 5:1         - TD > 5:1         Permissible load         Influence effects         Long term stability         Response time         Adjustability         ³ accuracy according to EN IEC 628:         4 except nominal pressure ranges ≤         ≤ ± (0.1 + 0.02 x turn-down) % spai         ⁵ software, interface, and cable have         Thermal effects (Offset and S)         Tolerance band       [% span / 10]         Permissible temperatures         Electrical protection         Shot airwit protection	28-2- 0.4( n e.g to b <b>pan</b> ) an]	$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turn $\leq \pm (0.1 + 0.01$ current 2-wire: supply: 0.0 $\leq \pm (0.1 \times turn-current outputvoltage outputconfiguration of- electronic da- offset: 0 9- turn down of- limit point adjustbar; for these ca- turn-down of 3:1e ordered separate\pm (0.02 \times turn-in compensateStandard prod100 °C*Exi: in zone 0:Ex (MINES - M$	n accuracy <sup>4</sup> use the follo 15 x turn-down n = nominal p n-down of 10 15 x 10) % sp $\mathbb{R}_{max} = [(V_s)$ 05 % span / -down) % span 420 mA to 0 10 V of following p amping: 0 00 % span f span: max. tment (non-line alculation of acc 1: $\leq \pm (0.1 + 0.0)$ tely (software a temperature i-down) ed range -down) ed range duct: medium : -20 60 °C M1): Medium:	wing formula n] % span pressure range (1 following a ban i.e. accur - V <sub>s</sub> min) / 0 10 V an / year (2-wire) arameters po 100 sec 10:1 arity, hysteresis curacy is as foll (2 x 3 ) % span appropriate for 1 25 -20 80 ° (-25 125 ° (-25 125 °) with patm 0,8 (-20 70 °C /	(for nominal pre- e / adjusted ran ccuracy is calcu acy is $\leq \pm 0.25$ .02 A] $\Omega$ volt loa 5ms 25 ms ssible (interface s, repeatability) ows: <i>i.e.</i> accuracy is $\leq$ Windows <sup>®</sup> 95, 98, C C C / electronics / bar up to 1,1 bar	essure ranges ge Jlated: % span age 3-wire: R ad: 0.05 % e / software ne ± 0.16 % span 2000, NT Versic 2000, NT Versic content: ar in zone 065 °C / store	≤ 0.40 bar see min = 10 kΩ span / kΩ cessary <sup>5</sup> ): on 4.0 or higher, -25 85 °C / s 1 or higher: -20 rage: -2570 '	e note 5): and XP) storage: -40 0 65 °C °C
Accuracy³         performance after turn-down         - TD ≤ 5:1         - TD > 5:1         Permissible load         Influence effects         Long term stability         Response time         Adjustability         ³ accuracy according to EN IEC 628:         4 except nominal pressure ranges ≤         ≤ ± (0.1 + 0.02 x turn-down) % spai         ⁵ software, interface, and cable have         Thermal effects (Offset and S)         Tolerance band       [% spa / 10]         Permissible temperatures         Electrical protection         Short-circuit protection	28-2- 0.4( n e.g to b <b>pan</b> ) an]	$\leq \pm 0.1$ % span no change of a for calculation $\leq \pm [0.1 + 0.01$ with turn-dowr e.g. with a turn $\leq \pm (0.1 + 0.01$ current 2-wire: supply: 0.0 $\leq \pm (0.1 \times turn-current outputvoltage outputconfiguration of- electronic da- offset: 0 9- turn down of- limit point adjustD bar; for these ca- turn-down of 3:1e ordered separate\pm (0.02 \times turn-in compensate\pm (0.02 \times turn-in compensateStandard prod100 °C*Exi: in zone 0:Ex (MINES - M$	n accuracy <sup>4</sup> use the follo 15 x turn-down n = nominal p n-down of 10 15 x 10) % sp $R_{max} = [(V_s)$ 05 % span / -down) % span 420 mA 010 V of following p amping: 0 00 % span f span: max. tment (non-line alculation of acc 1: $\leq \pm (0.1 + 0.0)$ tely (software a temperature i-down) ed range -down) ed range duct: medium : -20 60 °C M1): Medium	wing formula n] % span pressure range 1 following a pan i.e. accur $-V_s min) / 0$ 10 V an / year (2-wire) arameters po 100 sec 10:1 ararity, hysteresis curacy is as foll 22 x 3 ) % span appropriate for 1 25 -20 80 ° -20 80 ° -20 80 ° with patm 0,8 -20 70 °C /	(for nominal pre- e / adjusted ran ccuracy is calcu acy is $\leq \pm 0.25$ .02 A] $\Omega$ volt loa 5ms 25 ms ssible (interface s, repeatability) ows: <i>i.e.</i> accuracy is $\leq$ Windows <sup>®</sup> 95, 98, C C C / electronics / bar up to 1,1 bar	essure ranges ge Jlated: % span age 3-wire: R ad: 0.05 % e / software ne ± 0.16 % span 2000, NT Versid 2000, NT Versid c environment: ar in zone 065 °C / stor	≤ 0.40 bar see min = 10 kΩ span / kΩ cessary <sup>5</sup> ): on 4.0 or higher, -25 85 °C / s 1 or higher: -20 rage: -2570 °	e note 5): and XP) storage: -40 0 65 °C °C

**Technical Data** 

Electromagnetic compatibility	emiss	ion and immu	nity according	to EN 61326									
Materials													
Pressure port	stainle	ess steel 1.440	)4 (316 L)										
Housing	stainle	stainless steel 1 4404 (316 L)											
Option field housing	stainle	200 Steel 1 430	)1 (304): cabl	e aland M16v1	15 brass nicke	I plated (cla	amning rang	ne 2 8 mm)					
Casta		staniess steer 1.450 r (504), cable giand wirox 1.5, brass, nickel plated (clamping range 2 8 mm)											
Seals	DIVIP	DMP 3311/ LMP 3311: FKM											
	DMP	DIMP 333I: NBR											
	option	ial:	welded v	ersion °									
	others	s on request											
Diaphragm	Diaphragm stainless steel 1.4435 (316L)												
Media wetted parts	press	ure port, seals	, diaphragm										
<sup>6</sup> welded version only with pressu	re ports accordi	na to EN 837: w	elded version no	ot available with	pressure ranges ≤	0.16 bar an	d > 40 bar						
Mochanical stability													
	40.5												
Vibration	10 g F	RMS (20 20)	JU HZ) accol	rding to DIN E	N 60068-2-6								
Shock	100 g	/ 11 msec	accor	rding to DIN E	N 60068-2-27								
Explosion protection (only	for 4 20 m/	4 / 2-wire)											
Approvals DX9-DMP 331	IBEVI	, 110ATEX1122	Y										
	Zone												
DX9-LIVIP 3311	Zone			, Da									
Approvals IBExU13ATEX104	3X IM1E	±x ia I Ma (MIN	IES - M1)										
	U <sub>i</sub> = 2	8 V, I <sub>i</sub> = 93 mA	$P_i = 660 \text{ mW}$	V, C <sub>i</sub> ≈ 0 nF, L <sub>i</sub>	≈0 μH,								
Safety technical max. values	the su	pply connection	ons have an in	ner capacity o	of max. 27 nF to	the housin	a						
Connecting cohice	achia	oonooitonooi	aignal ling/ahi		line/signal line:	160 pE/m	5						
	cable	capacitance:	signal line/shi	eid also signai	line/signal line:	160 pF/m							
(by factory)	cable	inductance:sig	nal line/shield	i also signal lir	ne/signal line: 1µ	ιH/m							
Miscellaneous													
Current consumption	signal	output current	: max. 25	mA									
	signal	output voltage	max 7 n	nA									
Weight	annroy	< 200 a											
	appio/	. 200 g											
	any												
Operational life	100 m	illion load cycl	es										
CE-conformity	EMC I	Directive: 2014	/30/EU	Pressi	ure Equipment D	irective: 20	014/68/EU (	module A) <sup>8</sup>					
ATEX Directive	2014/	34/EU											
<sup>7</sup> Pressure transmitters are calibr	ated in a vertical	nosition with th	e nressure conn	ection down. If t	his position is char	naed on inst	allation there	can he slight					
deviations in the zero point for p	ressure ranges	$P_N \leq 1 \text{ bar.}$				.gea en men		oun so ongin					
<sup>8</sup> This directive is only valid for de	vices with maxii	num permissible	e overpressure >	> 200 bar									
Wiring diagrams													
thing diagrams													
2-wire-system (current)			3-wire-system	n (voltage)									
	200 <b>.</b>		/ suppl	y +	o +								
			P /	( )									
			Vs										
	Vs												
I L Y	0	$\sim$ signal + $\checkmark$											
				-									
Pin configuration													
						Bayone	et MIL-C-						
						26482	2(10-6)						
	150 4400	<b>D</b> : 1 <b>D</b> 00	Binder	M12v1/		20402	- (10=0) - B						
	130 4400	Binder 723	723//23	IVI I ZX I/	field housing								
		(5-pin)	(7  nin)	metal (4 min)	neid neusing		and les	cable co					
	1	2 1	(7-pin) 3	(4-pin)		D	A						
Electrical connections		$(\bigcirc)$		3 2	0000								
	3	3	2 6 5		6666								
						E	F	47100)					
					Vs+ Vs- S+ GND								
	2	4 5	7 0	4 1		2-wire	2-wire						
						2-00110	2-00110						
supply +	1	3	3	1	Vs +	A	A	wh (white)					
supply –	2	4	1	D	bn (brown)								
signal + (only for 3-wire)	3	1	6	3	S +	-	В	gn (areen)					
								gn/ye					
shield	around pin	5	2	4	GND	pressi	ure port	(green/vel-					
	J		-	· ·									
Communica-			4					1011/					
tion interface <sup>9</sup>	-	-	4	-	-	-	-	-					
	-	-	5	-	-	-	-	-					
GND	-	-	7	-	-	-	-	-					





DMPi-LMPi EN 27.06.2024

Programming kits for i-devices	Programming kits for i-devices: CIS 510-RS232 and CIS 510-USB									
CIS 510-RS232	CIS 510-USB									
Supply V <sub>S</sub>	for CIS 510-RS232: 24V <sub>DC</sub> for CIS 510-USB: 24V <sub>DC</sub>									
Package contents	Programming software "Config 3.0" on CD operating manual CIS 510-RS232: Adapt 1 RS-232 connecting cable (for PC) 7-pin connecting cable (for measuring device) CIS 510-USB: Adapt 5 USB connecting cable (for PC) 7-pin connecting cable (for PC)									
System requirement	For the installation of the software, a Windows® PC (95, 98, ME, 2000, NT, XP) with serial interface (RS 232) or USB-interface is required									
Please read the operating manu	ual carefully before installing and starting up the programming kit.									
Wiring diagrams										
CIS 510-RS232:	CIS 510-USB interface:									
CIS 510-RS232: Cable with socket 7-pin Cable										
	P 7-pin connecting cable									
Ordering codes	P 7-pin connecting cable									
Ordering codes Version:	Provide the set of the									
Ordering codes Version: Adapt 1 with RS232 connecting Adapt 5 with USB connecting	Princonnecting cable Ordering code: ng cable for PC CIS 510-RS232 cable for PC CIS 510-USB									



Ordering code DMP 3	31i		
23.08.2024			
DMP 331i			
D			
Gauge (0,440 bar)	1 1 0		
Absolute (0,440 bar)	1 1 1		
Input [bar]			
00,4	4 0 0 0		
0.2			
04	4 0 0 1		
0 10	1 0 0 2		
020	2 0 0 2		
040	4002		
-0,4 0,4 -1 1	S 1 0 2		
-12	V 2 0 2		
-1 4	V 4 0 2		
-1 10	V 1 0 3		
Customer	9 9 9 9 X X X X		
Output			
420 mA / 2-wire	1		
010 V / 3-wire	3		
Intrinsic safety Ex ia 420 mA / 2-wire	E		
Customer	9		
Accuracy	-		
0,1 % - standard range		1	
0,1 % - standard range including Calibration Certificate		P	
0,1 % - customer range		H	
0.2 % (P <sub>N</sub> < 0.1 bar)		В	
$0.2 \% (P_N < 0.1 \text{ bar})$ with Calibration Certificate		Q	
Customer		9	
Electrical connection			
Connector DIN 43650 (ISO 4400) (IP 65) Connector Binder 723 5-nin (IP 67)			
Cable gland PG7 / cable length specify (IP 67)		4 0 0	
+ PVC cable / 1 m			
Connector Buccaneer (IP 68)		5 0 0	
Field housing stainless steel, cable gland M 16 x 1,5 (IP 67)		8 0 0	
Connector Binder 723 and 423 7-pin (IP 67) (for Interface RS 232)		8 8 0 A 0 0	
Connector DIN 43650 (ISO 4400) - potting compound inside (IP 67)		E 0 0	
Connector M12 x 1, 4-pin (IP 67)		M 0 0	
Connector M12 x 1, 4-pin (IP 67) - metal		M 1 0	
Cable outlet, cable with ventilation tube (IP 68) '		IRU	
Customer		999	
Mechanical connection			
G 1/2" DIN 3852			1 0 0
G 1/2" EN 837 G 1/4" DIN 3852			2 0 0
G 1/4" EN 837			4 0 0
M 20 x 1,5 DIN 3852			500
M 12 x 1 DIN 3852			6 0 0
M 10 x 1 DIN 3852			
IVI 2U X 1,3 EIN $637$			5 U U F U U
M 20 x 1,5 DIN 3852 with flush sensor diaphragm			F 0 4
1/2" NPT			N 0 0
1/4" NPT			N 4 0
Soals			alalal
Viton (FKM)			1







2 3

Without seals - welded (only with EN 837-1/-3) 2,3	
EPDM	

Viton (FKM) up to -40 °C	F			
Customer	9			
Special version				
Standard		1 1	1	
Temperature compesation -30 80 °C (only with seals "F" or welded "2")		1 1	2	
Interface RS 232 (only for connector Binder 723/423 7-pin) <sup>4</sup>		1 2	1	
Customer	(	9 9	9	
Software for set up on site				
Communication module ADAPT-6 (RS 232 / USB for DMP 331i, DMP 333i) + software				
Software for DMP 331i, 333i / update code 503498				
Accessories				

Adapt 1 with RS232 connecting cable for PC (CIS 510-RS232) Adapt 5 with USB connecting cable for PC (CIS 510-USB)

0,-...without additional charge

On request...in accordance with the producer

Surcharges for calibration are not subject to any discounts. Subject to change.

This document contains the specification for ordering the product; detailed technical parameters of the product and its possible variants are given in the data sheet. BD SENSORS reserves the right to change sensor specifications without further notice.

1 code TR0 = PVC cable, cable with ventilation tube available in different types and lengths; cable not included in the price

2 only possible for DMP 331i and  $P_N \le 40$  bar

3 welded version only with pressure ports according to EN 837

4 Communication interface RS232 only possible with el. connection Binder serie 723/423 (7pin)

Software, Interface and cable for DMP 331i with option RS-232 have to be order separately

(Ordering code: CIS-G; Software appropriate for Windows® 95, 98, 2000, NT Version 4.0 or newer and XP)

Windows® is a registrated trademark of Microsoft Corporation





Ordering code DMP	333i										
23.08.2024 DMP 333i			1.0	Т	ו.ר		Π.	-	-	Т	1
					-1-1		H				
Pressure					42						
Gauge '	1 3 0				-						
ADSOIUTE	1 3 1										
	6002				-						
0 100 <sup>2</sup>	1003										
0 200 <sup>2</sup>	2 0 0 3				Т						
0400 <sup>2</sup>	4003										
0 600 <sup>2</sup>	6003				Т						
Customer	9999										
Output											
420 mA / 2-wire		1			_						
Intrinsic safety Ex ia 420 mA /2-wire		E									
Intrinsic safety M1 Ex ia 4 20 mA / 2-wire (for mines)		F									
Customer		9			i.						
0.1%- standard range		1		1							
0.1 % - standard range		F			Т						
0.1 % - customer range											
0,1 % - customer range including Calibration Certificate		H			T						
0,2 % (P <sub>N</sub> < 0,1 bar)		E									
Customer		g			Т						
Electrical connection											
Connector DIN 43650 (ISO 4400) (IP 65)			1	0 0	S						
Connector Binder 723 5-pin (IP 67)			2	0 0	J			_			
Cable gland PG7 / cable length specify (IP 67)			4	0 0	ו						
+ PVC cable / 1 m			-	0	_						
Eield housing stainless steel, cable gland M 16 x 1.5 (IP 67)			5		)						
Field housing stainless steel, cable gland M 20 x 1,5 (IP 67)			8	8 0	0						
Connector Binder 723 and 423 7-pin (IP 67) (for Interface RS 232)			A	0 0	0						
Connector DIN 43650 (ISO 4400) - potting compound inside (IP 67)			E	0 0	0						
Connector M12 x 1, 4-pin (IP 67)			М	0 0	0						
Connector M12 x 1, 4-pin (IP 67) - metal			М	1 (	D						
Cable outlet, cable with ventilation tube (IP 68) <sup>3</sup>			Т	R	J						
+ PVC cable / 1 m											
Customer			9	9 9	3	_		_			
Mechanical connection						1 0					
G 1/2" DIN 3852						10	0				
G 1/2 EN 037 G 1/4" DIN 3852						20	0				
G 1/4" EN 837						4 0	0				
M 20 x 1.5 DIN 3852						5 0	0				
M 12 x 1 DIN 3852						6 0	0				
M 10 x 1 DIN 3852						7 0	0				
M 20 x 1,5 EN 837						8 0	0				
G1/2" DIN 3852 open pressure port						H 0	0				
1/2" NPT						N 0	0	_			
1/4" NPT						N 4	0				
Customer						99	9				
Viton (FKM)								1			
EPDM ( $P_{\rm M} < 160 \text{ bar}$ )								3			
NBR (standard)								5			
Customer								9			
Special version											
Standard									1	1 1	
Interface RS 232 (only for connector Binder 723/423 7-pin) <sup>4</sup>									1	2 1	
Customer									9	99	
Software for the intelligent pressure transmitters											
Communication module ADAP I-6 (RS 232 / USB for DMP 331i, DMP 333i) + software											
Accessones											







#### Adapt 5 with USB connecting cable for PC (CIS 510-USB)

0,-...without additional charge

On request...in accordance with the producer

Surcharges for calibration are not subject to any discounts. Subject to change.

This document contains the specification for ordering the product; detailed technical parameters of the product and its possible variants are given in the data sheet. BD SENSORS reserves the right to change sensor specifications without further notice.

1 measurement starts with ambient pressure

2 pressure ranges > 60 bar as DMP 333i 3 code TR0 = PVC cable, cable with ventilation tube available in different types and lengths; cable not included in the price

4 Communication interface RS232 only possible with el. connection Binder serie 723/423 (7pin)

Software, Interface and cable for DMP 333i with option RS-232 have to be order separately

(Ordering code: CIS-G; Software appropriate for Windows® 95, 98, 2000, NT Version 4.0 or newer and XP)





			Ordering	code L	.MP	331												
23.08.2024	4											-						
		LMP 331i		·······································	-Щ		-L	-	-	-	-		- L		-L	-		
Prossura																		
in har				430							_							
in m H₂O				1 3 1														
Input	[mH_O]	[bar]		4011														
mpar	0 4			_	10													
	0 4	0 1			1 0													
	0 20	0 2			2 0													
	0 40	0 4			4 0													
	0 100	0 10			1 0													
	0 200	0 20			2 0													
	0 400	0 40			4 0	0 2												
Customer	0 400	0			9 0													
Housing mater	rial					51515												
Stainless steel	1 4404 (316 L)				_	_	1											
Diaphragm ma	terial						·											
Stainless steel	1.4435 (316 L)				_		_	1										
Output																		
4 20 mA / 2-v	wire				_		_	_	1									
0 10 V / 3-wi	re <sup>3</sup>								3						-			
Intrinsic safety E	 Ex ia 4 20 m	A / 2-wire							E									
Intrinsic safety	V1 Ex ia 4 … 2	0 mA / 2-wire (for mines)							F									
Customer		,							9									
Accuracy																		
0,1 % - standard	d range									1								
0,1 % - standard	d range includi	ng Calibration Certificate								Р								
0,1 % - custome	er range	0								1								
0,1 % - custome	er range includ	ing Calibration Certificate								н								
0,2 % (P <sub>N</sub> < 0,1	bar)	с С								В								
Customer										9								
Electrical conn	nection									1								
Connector DIN	43650 (ISO 44	00) (IP 65)									1	0 0	)					
Connector ISO	4400 (IP 65) +	silicone seals for Ex nA									1	0 !	5					
Connector Bind	er Serie 723 5	-pin (IP 67)									2	0 0						
Cable gland PG	67 / cable lengt	h specify (IP 67)									4	0 0	D					
+ PVC cable / 1	m																	
Connector Bucc	caneer (IP 68)										5	0 0	D					
Field housing st	tainless steel, o	cable gland M 16 x 1,5 (IP 67)									8	0 0	)					
Field housing st	tainless steel, o	cable gland M 20 x 1,5 (IP 67)									8	8 (	D					
Connector DIN	43650 (ISO 44	00) - potting compound inside	(IP 67)								Е	0 0	)					
Connector Bind	er 723 and 423	3 7-pin (IP 67) (for Interface RS	232)								Α	0 (	D					
Connector M12	x 1, 4-pin (IP 6	67)									М	0	D					
Connector M12	x 1, 4-pin (IP 6	67) - metal									М	1 (	)					
Cable outlet, ca	ble with ventila	ation tube (IP 68) <sup>1</sup>	1								Т	R	D					
+ PVC cable / 1	m																	
Customer											9	9 9	9					
Mechanical co	nnection																	
G 3/4" DIN 3852	2												ł	00	)			
Customer													ę	99	)			
Seals																		
Viton (FKM)															1			
EPDM															3			
Customer															9			
Special version	n																	
Standard			0													1	1 1	
Interface RS 23	2 (only for con	nector Binder Serie 723/423 7-	pin) <sup>2</sup>													1	2 1	
Customer																9	9 9	
Accessories																		
Adapt 1 with RS	S232 connectin	g cable for PC (CIS 510-RS2	32)															

Adapt 5 with USB connecting cable for PC  $\,$  (CIS 510-USB)  $\,$ 

0,-...without additional charge

On request...in accordance with the producer







Surcharges for calibration are not subject to any discounts. Subject to change.

This document contains the specification for ordering the product; detailed technical parameters of the product and its possible variants are given in

1 code TR0 = PVC cable, cable with ventilation tube available in different types and lengths; cable not included in the price 2 not in combination with SIL

3 maximum length of PVC cable - 25 m, PUR, FEP, TPE - 40 m



