

# PA 430



## Plug-on Display for Current Loop with Contacts

### Functional range

- ▶ free scalable display
- ▶ switch mode, hysteresis, parameterizable deceleration of the contacts
- ▶ display 330 ° rotatable
- ▶ connector 300 ° rotatable
- ▶ no external power supply necessary

### Product characteristics

- ▶ plug-on display for pressure transmitter with output signal: 4 ... 20 mA / 2-wire or 0 ... 10 V / 3-wire
- ▶ 4-digit LED display

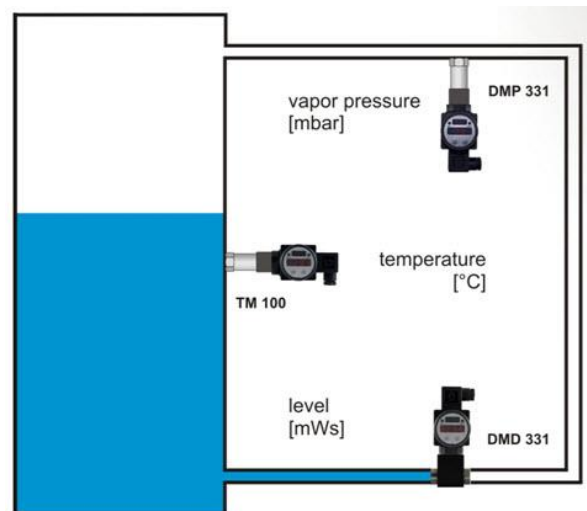
### Optional versions

- ▶ IS-version
- ▶ 1 or 2 programmable contacts

### Typical application



in situ display of pressure, temperature and level



<b>Analogue signal</b>		
2-wire-system	2-wire: 4 ... 20 mA	
Option Ex-protection	2-wire: 4 ... 20 mA	
3-wire-system	0 ... 10 V	
<b>Supply</b>		
2-wire-system	supplied by current loop; voltage drop $\leq 6$ V; $V_S = (V_{T \min} \dots V_{T \max}) + 6 V_{DC}$ with $V_T$ = supply of the used transmitter	
	Ex-protection: max. 28 V <sub>DC</sub> (for combination of transmitter and PA 430)	
3-wire-system	display is supplied parallel with transmitter $V_{S \min} = 8 V_{DC} \dots V_{T \min}$ ; $V_{S \max} = V_{T \max} \dots 36 V_{DC}$ with $V_T$ = supply of the used transmitter	
<b>Contact (optionally) <sup>1</sup></b>		
Number, type	max. 2 independent PNP open collector contacts	
Switching performance	$V_{Switch} = V_S - 2$ V; contact rating max. 125 mA, short-circuit resistant	
Max. switching current <sup>2</sup>	70 mA	
Repeatability	$\leq \pm 0.1$ % span	
Switching frequency	max. 10 Hz	
Switching cycles	$> 100 \times 10^6$	
Delay time	0 ... 100 sec	
<sup>1</sup> max. 1 contact for: 4 ... 20 mA / 2-wire with plug ISO 4400; 0 ... 10 V / 3-wire with M12x1; Ex-protection no contact possible with 0 ... 10 V / 3-wire with plug ISO 4400		
<sup>2</sup> the real switching current in the application depends on the power supply unit		
<b>Miscellaneous</b>		
Electrical protection	reverse polarity protection (no damage, but also no function); electromagnetic compatibility (emission and immunity according to EN 61326); short-circuit protection; ingress protection IP 65	
Display	4-digit, 7-segment red LED display, digit height 7 mm; range of indication -1999 ... +9999; accuracy 0.1 % $\pm$ 1 digit; digital damping 0.3 ... 30 sec (programmable); measured value update 0.0 ... 10 sec (programmable)	
Permissible temperatures	electronics / environment: -25 ... 85 °C      storage: -40 ... 85 °C	
Material of display housing	PA 6.6, polycarbonate	
Mechanical stability	vibration: 5 g RMS (20 ... 2000 Hz)      shock: 100 g / 11 msec	
Weight	approx.. 150 g	
CE-conformity	EMC Directive_ 2014/30/EU	
<b>Explosion protection (optionally for 4 ... 20 mA / 2-wire)</b>		
Approval AX4-PA 430	IBExU06ATEX 1049 X      zone 1: II 2G Ex ia IIC T4 Gb	
Safety techn. maximum values	$U_i = 28$ V, $I_i = 93$ mA, $P_i = 660$ mW, $C \approx 0$ nF, $L_i \approx 0$ $\mu$ H; ; plus cable inductivities 1 $\mu$ H/m and cable capacities 100 pF/m	
Permissible temperatures for environment	-25 ... 70 ° C	
<b>Wirings diagrams</b>		
<p>2-wire-system (current)</p>		<p>3-wire-system (voltage)</p>
<b>Pin configuration</b>		
Electrical connection	ISO 4400	M12x1 metal (5-pin)
Supply +	1	1
Supply -	2	2
Signal + (for 3-wire)	3 <sup>1</sup>	3 <sup>1</sup>
Contact 1	3 <sup>1</sup>	5
Contact 2	-	3 <sup>1</sup>
Shield	ground pin	4
<b>Dimensions (in mm)</b>		

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

## Ordering code PA 430

14.2.2022

PA 430

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Version											
Standard version	8	5	0								
Analogue output											
4 ... 20 mA / 2-wire				1							
0 ... 10 V / 3-wire				3							
Intrinsic safety Ex ia 4 ... 20 mA / 2-wire				E							
Customer				9							
Contacts <sup>1</sup>											
Without switching output				0							
1 x PNP (3-wire output only with 5-pin connector N10)				1							
2 x PNP (only with 5-pin connector N10)				2							
Electrical connection											
Connector DIN 43650 (ISO 4400) (IP 65) - 4-pin					1	0	0				
Connector M12 x 1, 5-pin (IP 67) - metal					N	1	0				
Units											
Without description <sup>3</sup>								0			
bar								1			
mbar								2			
m H <sub>2</sub> O								3			
Mpa								4			
kPa								5			
mA								A			
°C								C			
°C dp								D			
Kelvin								K			
mm/s								M			
%								P			
Volt								V			
Customer								9			
Label on display											
Standard										1	
Neutral										N	
Customer										9	
Special version											
Standard									0	0	0
Customer									9	9	9

0,-...without additional charge  
 On request...in accordance with the producer

Surcharges for calibrati Surcharge 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.  
 With connector DIN 43650 and output 4...20 mA/2-wire only max. 1 switching output possible;  
 1 0 ... 10 V / 3-wire with Binder 723 (5-pin) or M12x1 (5-pin); IS protection  
 no contact possible with 0 ... 10 V / 3-wire with plug ISO 4400  
 2 intended for the use with DMP 331i, DMP 333i and LMP 331i with el. connection Binder Serie 723 (7-pin)  
 3 the unit signs are loose-settled



BD SENSORS s.r.o.  
 Hradištská 817  
 CZ – 687 08 Buchlovice

Tel.: +420 572 411 011  
 Fax: +420 572 411 497

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

www.bdsensors.cz  
 info@bdsensors.cz

