



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

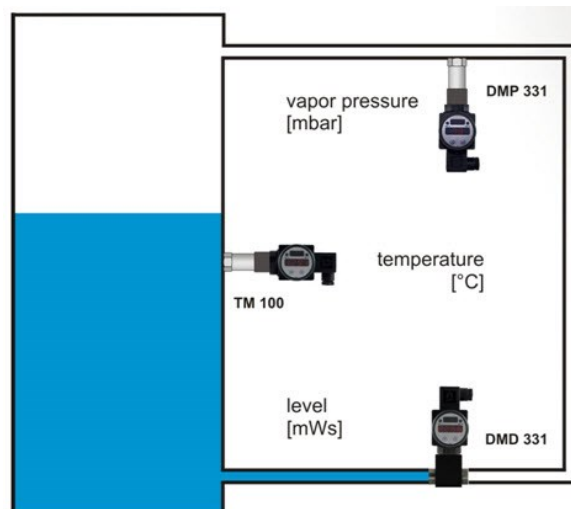
Optional versions

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

Typical application



in situ display of pressure, temperature and level



Analogue signal		
2-wire-system	2-wire: 4 ... 20 mA	
Option Ex-protection	2-wire: 4 ... 20 mA	
3-wire-system	0 ... 10 V	
Supply		
2-wire-system	supplied by current loop; voltage drop $\leq 6\text{ V}$; $V_S = (V_{T\text{ min}} \dots V_{T\text{ max}}) + 6\text{ V}_{DC}$ with V_T = supply of the used transmitter Ex-protection: max. 28 V_{DC} (for combination of transmitter and PA 430)	
3-wire-system	display is supplied parallel with transmitter $V_{S\text{ min}} = 8\text{ V}_{DC} \dots V_{T\text{ min}}$; $V_{S\text{ max}} = V_{T\text{ max}} \dots 36\text{ V}_{DC}$ with V_T = supply of the used transmitter	
Contact (optionally) ¹		
Number, type	max. 2 independent PNP open collector contacts	
Switching performance	$V_{\text{Switch}} = V_S - 2\text{ V}$; contact rating max. 125 mA, short-circuit resistant	
Max. switching current ²	70 mA	
Repeatability	$\leq \pm 0.1\%$ span	
Switching frequency	max. 10 Hz	
Switching cycles	$> 100 \times 10^6$	
Delay time	0 ... 100 sec	
¹ 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 ² the real switching current in the application depends on the power supply unit		
Miscellaneous		
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	
Explosion protection (optionally for 4 ... 20 mA / 2-wire)		
Approval AX4-PA 430	IBExU06ATEX 1049 X zone 1: II 2G Ex ia IIC T4 Gb	
Safety techn. maximum values	$U_i = 28\text{ V}$, $I_i = 93\text{ mA}$, $P_i = 660\text{ mW}$, $C \approx 0\text{ nF}$, $L_i \approx 0\text{ }\mu\text{H}$; plus cable inductivities $1\text{ }\mu\text{H/m}$ and cable capacities 100 pF/m	
Permissible temperatures for environment	-25 ... 70 °C	
Wirings diagrams		
Pin configuration		
Electrical connection	ISO 4400	M12x1 metal (5-pin)
Supply +	1	1
Supply -	2	2
Signal + (for 3-wire)	3 ¹	3 ¹
Contact 1	3 ¹	5
Contact 2	-	3 ¹
Shield	ground pin	4
Dimensions (in mm)		
ISO 4400	M12x1	M12x1 (5-pin)

Ordering code PA 430

23.08.2024

PA 430

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Version																			
Standard version		8	5	0															
Analogue output																			
4 ... 20 mA / 2-wire																			
0 ... 10 V / 3-wire																			
Intrinsic safety Ex ia 4 ... 20 mA / 2-wire																			
Customer																			
Contacts ¹																			
Without switching output																			
1 x PNP (3-wire output only with 5-pin connector N10)																			
2 x PNP (only with 5-pin connector N10)																			
Electrical connection																			
Connector DIN 43650 (ISO 4400) (IP 65) - 4-pin																			
Connector M12 x 1, 5-pin (IP 67) - metal																			
Units																			
Without description ³																			
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Customer																			
Label on display																			
Standard																			
Neutral																			
Customer																			
Special version																			
Standard																			
Customer																			

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.

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.
 Hradišská 817
 CZ – 687 08 Buchlovice

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

Tel.: +420 572 411 011

 www.bdsensors.cz
 info@bdsensors.cz
