

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

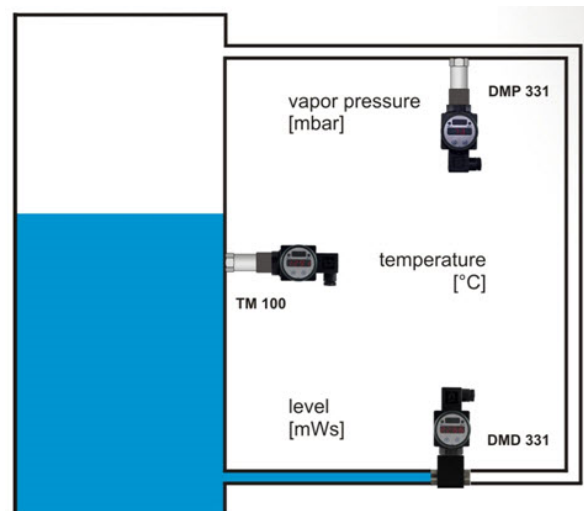
Optional versions

- ▶ 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	$\leq \pm 0.1\%$ FSO					
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 Binder 723 (5-pin) or 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: $-25 \dots 85\text{ }^\circ\text{C}$ storage: $-40 \dots 85\text{ }^\circ\text{C}$					
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					
Explosion protection (optionally for 4 ... 20 mA / 2-wire)						
Approval AX14-PA 430	IBExU 06 ATEX 1050 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	$-25 \dots 70\text{ }^\circ\text{C}$					
Wirings diagrams						
<p>2-wire-system (current)</p>	<p>3-wire-system (voltage)</p>					
Pin configuration						
Electrical connection	ISO 4400	M12x1 metal (5-pin)	Binder 723 (5-pin)	Binder 723 (7-pin) ³		
Supply +	1	1	3	3		
Supply -	2	2	4	1		
Signal + (for 3-wire)	3 ¹	3 ¹	5 ¹	-		
Contact 1	3 ¹	5	2	-		
Contact 2	-	3 ¹	1 ¹	-		
Shield	ground pin	4	ground pin	2		
³ intended for usage with DMP 331i, DMP 333i and LMP 331i with electrical connection Binder Series 723 (7-pin); pins 4, 5, 6, 7 are wired through 1:1; standard without contacts; contacts on request; 3-wire version not possible						
Dimensions (in mm)						
<p>ISO 4400</p>	<p>M12x1</p>	<p>Binder 723</p>	<p>ISO 4400</p>	<p>M12x1 (5-pin)</p>	<p>Binder 723 (5-pin)</p>	<p>Binder 723 (7-pin)</p>

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Ordering code PA 430

PA 430



Standard version		8	5	0															
Analogue output																			
	4 ... 20 mA / 2-wire				1														
	0 ... 10 V / 3-wire				3														
	Intrinsic safety for zone 1 / 4 ... 20 mA / 2-wire				E														
	customer				9														consult
Contact ¹																			
	without contact				0														
	1 contact				1														
	2 contacts				2														
Electrical connection																			
	ISO 4400				1	0	0												
	Binder series 723 (5-pin)				2	0	0												
	Binder series 723 (7-pin) ²				A	0	1												
	M12x1 (5-pin) / metal version				N	1	0												
Unit																			
	without ³							0											
	bar							1											
	mbar							2											
	mH ₂ O							3											
	%							P											
	mA							A											
	customer							9											consult
Label on display																			
	standard							1											
	neutral							N											
	customer							9											consult
Special version																			
	standard									0	0	0							
	customer									9	9	9							consult

¹ max. 1 contact for: 4 ... 20 mA / 2-wire with plug ISO 4400; 0 ... 10 V / 3-wire with Binder 723 (5-pin) or M12x1 (5-pin); Ex-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

