



PA 430

Plug-on Display
self powered

- ▶ for 4 ... 20 mA / 2-wire or 0 ... 10 V / 3-wire transmitters
- ▶ standard: plug DIN 43650; optional: M12x1 5-pin or Binder 723 5-pin
- ▶ up to 2 contacts possible
- ▶ display and housing rotatable

The plug-on display PA 430 is suitable for all transmitters with output signals 4 ... 20 mA / 2-wire or 0 ... 10 V / 3-wire. The display is installed between male and female plug and ready for work immediately.

Standard connector or the PA 430 is DIN 43650. Optionally versions with connectors M12x1 (5-pin) and Binder 723 series (5-pin) are available. Further versions are possible on request.

The display can be freely programmed via two push-buttons. Following parameters can be adjusted: Scaling, decimal point, damping, and limit contact (optional). Those parameters are being stored in an EEPROM and, thus, are being kept also in case of power breakdown.

Limit exceeding in both directions can be displayed as a message. The integrated smart electronics permanently monitors all functions of the display.

The unit label specified on the order is placed under the display foil in factory and therefore is protected from wiping off. Alternatively another label with a different unit can be stuck on the display foil by the user.

- ▶ configuration of display, including
 - current value
 - decimal point
- ▶ contact adjustable, including
 - switch on / switch off points
 - hysteresis / window mode
 - switch on / switch off delay
- ▶ special functions / administration
 - access protection
 - min. / max. value memory

Functions



PA 430
Plug-on Display

Analogue signal ^{1, 2}

2-wire system	4 ... 20 mA
3-wire system	0 ... 10 V

Supply

2-wire-system	≤ 6 V (voltage drop; supply out of current loop) Ex-protection: max. 28 V _{DC} (for combination of transmitter and PA 430)
3-wire-system	15 ... 36 VDC (display is supplied parallel with transmitter)

Contact ^{1, 2}

Number, type	0, 1, or 2 independent PNP outputs
Switching performance	standard: contact rating max. 125 mA, short-circuit resistant option Ex-protection: max. switching current: 1 SP: 70 mA (usable current depends on applied zener barrier and power supply)
Repeatability	≤ ± 0.1 % FSO
Switching frequency	max. 10 Hz
Switching cycles	> 100 x 10 ⁶
Delay time	0 ... 100 s

Electrical protection

Short-circuit protection	permanent
Reverse polarity protection	no damage, but also no function
Electromagnetic compatibility	emission and immunity according to EN 61326
Option Ex-protection AX11-PA 430	II (1) 2 G EEx ia IIC T4 (only with 4 ... 20 mA / 2-wire) safety technical maximum values: V _i = 28 V, ΣI _i = 93 mA, ΣP _i = 660 mW

Display

Type	4-digit, red LED display, digit height 7 mm, digit width 4.85 mm (angle 10 °)
Range	-1999 ... +9999
Accuracy	0.1 % ± 1 digit
Update value	0.3 ... 30 s (programmable)

Mechanical stability

Vibration	10 g RMS (20 ... 2000 Hz)
Shock	100 g / 11 ms

Permissible temperatures

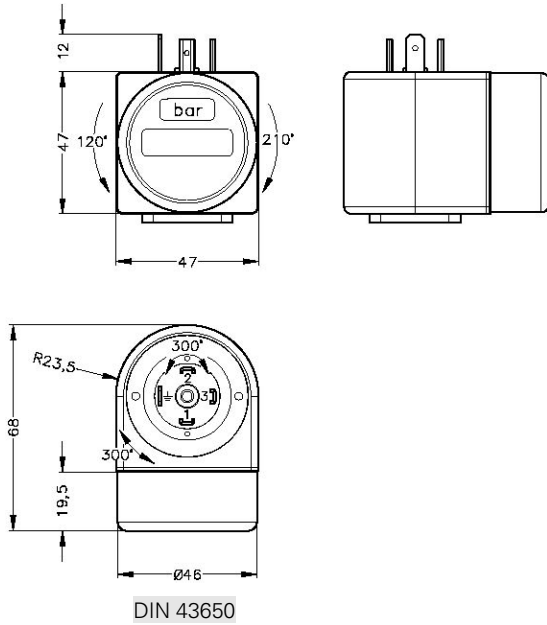
Electronics / environment	-25 ... 85 °C
Storage	-40 ... 85 °C

¹ with connector DIN 43650 and output 4 ... 20 mA / 2-wire only max. 1 contact possible; with 0 ... 10 V / 3-wire no contact possible

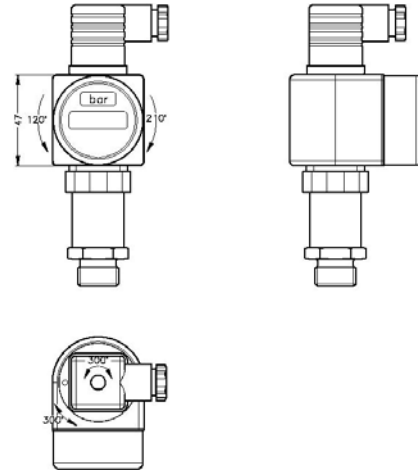
² with Ex version max. 1 contact possible;

Dimensions

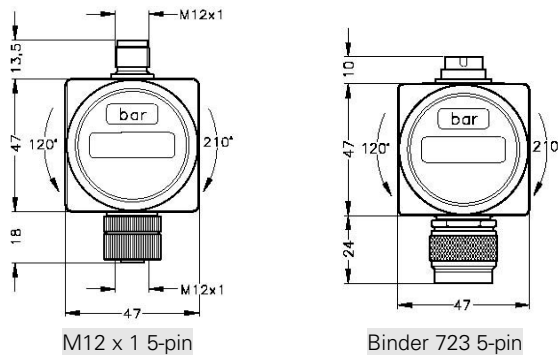
Standard



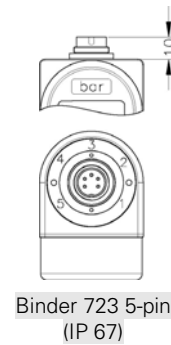
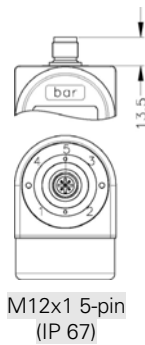
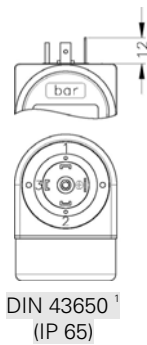
Example: use with a BD SENSORS pressure transmitter with connector DIN 43650



Optionen



Electrical connection



Materials

Display housing	PA 6.6, Polycarbonate
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Miscellaneous

Weight	approx. 100 g
Data memory	non-volatile EEPROM

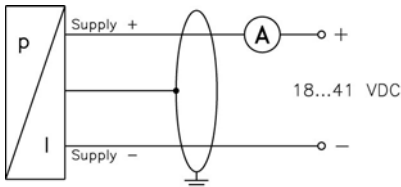
Pin configuration

Electrical connection		DIN 43650	M12x1 plastic (5-pin)	M12x1 metal (5-pin)	Binder 723 (5-pin)	cable colours (DIN 47100)
2-wire-system	Supply +	1	1	1	3	white
	Supply -	2	3	3	4	brown
	Contact 1	3	4	4	2	grey
	Contact 2	-	5	5	1	pink
Ground		ground contact	via pressure port	plug housing	via pressure port	cable shield
3-wire-system	Supply+	1	1	1	3	white
	Supply -	2	3	3	4	brown
	Signal +	3	2	2	5	green
	Contact 1	-	4	4	2	grey
	Contact 2	-	5	5	1	pink
Ground		ground contact	via pressure port	plug housing	via pressure port	cable shield

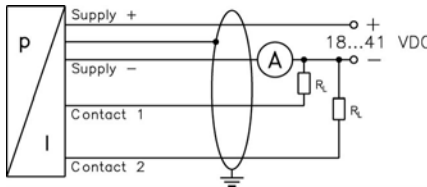
Wiring diagrams (when using with a BD SENSORS pressure transmitter)

2-wire-system (current) (for Ex-protection supply is $V_s = 20 \dots 28 V_{DC}$; max. 1 contact possible)

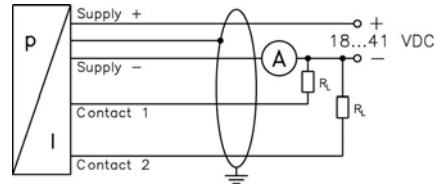
without contact



1 contact

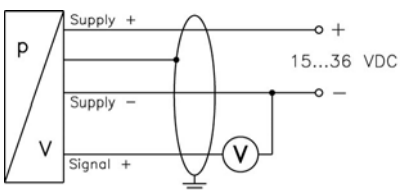


2 contacts

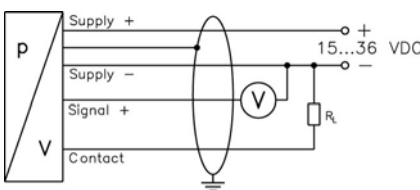


3-wire-system (current)

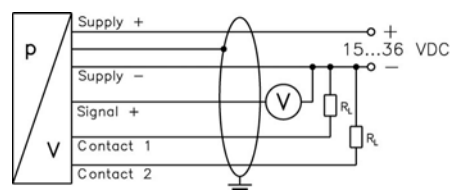
without contact



1 contact

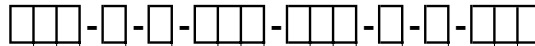


2 contacts



Ordering code PA 430

PA 430



Standard version									
		8	5	0					
Analogue output									
4 ... 20 mA / 2-wire ¹				1					
0 ... 10 V / 3-wire ¹				3					
Intrinsic safety for zone 1 / 4 ... 20 mA / 2-wire ²				E					
customer				X					
contact									
without contact				0					
1 contact ¹				1					
2 contacts ¹				2					
Electrical Connection (output)									
DIN 43650				1	0	0			
Binder series 723 (5-pin)				2	0	0			
M12x1 (5-pin) / metal version				N	1	0			
Electrical Connection (input)									
DIN 43650 ¹					1	0	0		
Binder series 723 (5-pin)					2	0	0		
M12x1 (5-pin) / metal version					N	1	0		
Unit									
without ³							0		
bar							1		
mbar							2		
mWC							3		
%							P		
mA							A		
customer							X		
Label on display									
standard							1		
neutral							N		
customer							X		
Special version									
standard							0	0	0
customer							X	X	X

¹ with connector DIN 43650 and output 4 ... 20 mA / 2-wire only max. 1 contact possible; with 0 ... 10 V / 3-wire no contact possible

² with Ex version is max. one contact possible

³ the unit signs are loose-settled



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