

IPA 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

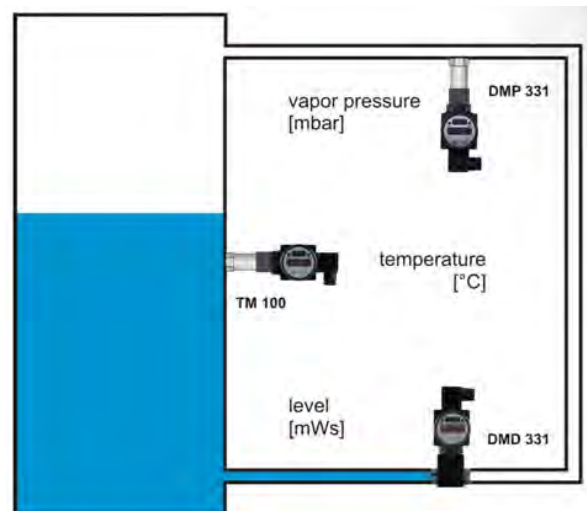
Optional versions

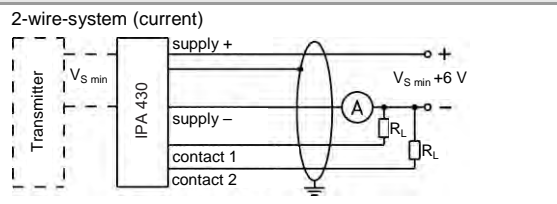
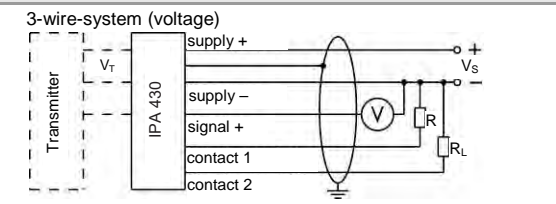
- ▶ IS-version
- ▶ 1 or 2 programmable contacts

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 IPA 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 ... 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	
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 ... 70° C			
Wirings diagrams				
				
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 el. 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)				
