

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

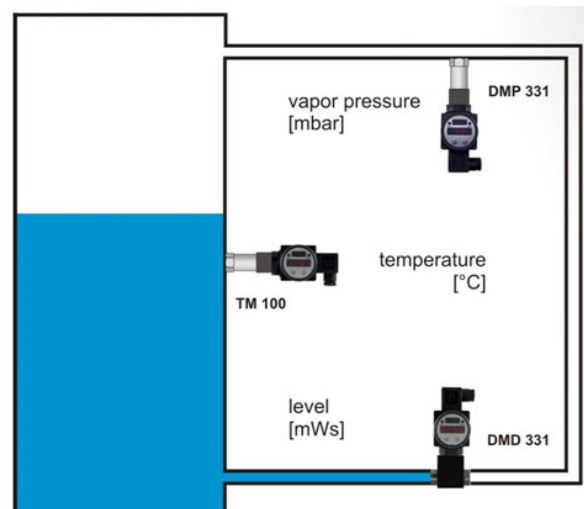
Optional versions

- ▶ 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 ≤ 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. $28 V_{DC}$ (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 | | | |
| Contact (optionally) ¹ | | | | |
| 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 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 | |
| Weight | approx. 150 g | | | |
| CE-conformity | EMC Directive: 2014/30/EU | | | |
| 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 | $U_i = 28$ V, $I_i = 93$ mA, $P_i = 660$ mW, $C \approx 0$ nF, $L_i \approx 0$ μ H; plus cable inductivities 1 μ H/m and cable capacities 100 pF/m | | | |
| Permissible temperature 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 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) | | | | |
| | | | | |

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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); 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