



Type 8327 can be combined with...



Type 8611

Universal PI controller eControl



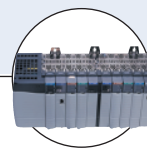
Type 2712 (1067)

Control valve with SideControl



Type 0911

Process indicator



PLC

Pressure transmitter for hazardous environments, 0-25 bar

- Piezoresistive element
- Available with flush diaphragm
- Ex -protection: EEx ia I/II C T6 in compliance with ATEX
- Applicable in the follow. hazardous environments:
 - connection to zone 1 and 2 - Gases and vapour (G)
- Standard signal 4...20 mA for connection to automation-systems

This intrinsically safe pressure transmitter is designed to cover the majority of industrial applications in the field of industrial pressure measurement technology.

High accuracy, reliability, compatibility with most media, adjustability, versatility, compact design and robust construction make this instrument universal and suitable for different measurement functions in hazardous environments.

For technical reasons piezoresistive sensor element is used for measuring ranges up to 16 bar (thin film sensor element for the measuring range of 25 bar, on request).

Wetted parts are made of stainless steel and completely welded. Internal seal elements, which could restrict the choice of measuring materials, are excluded.

General data

Compatibility

Standard version
Flush Diaphragm version

Any pipe with sensor connection
G 1/2" B according to DIN 16288,
G 1" B with O-ring (range up to 1.6 bar)
G 1/2" B with O-ring (range > 1.6 bar)
(Weld-on socket with connection G1/2"B, G1"B)

Materials

Housing
Wetted parts
Standard version
Flush Diaphragm version
Internal transmitting liquid

Stainless steel 1.4571

Stainless steel 1.4571 (and 1.4542 with 25 bar)
Stainless steel 1.4571, NBR seal
Synthetic Oil (only for pressure range up to 16 bar or flush diaphragm units)

Electrical connections

4 pin cable plug acc. to EN 175301-803

Measuring range (Pressure reference = relative pressure [atmospheric])

0 up to 1.0, 2.5, 6.0, 10.0, 16.0 bar

Measuring element

piezo (≤ 16 bar) [thin film (25 bar) on request]

Fluid temperature**

-30 up to +100°C

Compensated T° range

0 up to +80°C

Temperature coefficient

in compensated T° range
Average Tc of zero
Standard version $\leq 0.2\%$ of F.S.* / 10K
Flush Diaphragm version $\leq -0.2...+0.3\%$ of F.S.* / 10K
Average Tc of Span $\leq 0.2\%$ of F.S.* / 10K

Accuracy

$\leq 0.5\%$ of F.S.* (2-point calibration)¹⁾
 $\leq 0.25\%$ of F.S.* (Best fit calibration, BFSL)¹⁾

Hysteresis

$\leq 0.1\%$ of F.S.*

Repeatability

$\leq 0.05\%$ of F.S.*

1-year stability

$\leq 0.2\%$ of F.S.* (at reference conditions)

¹⁾ Calibrated in vertical mounting position with pressure connection bottom

* F.S.=Full scale

** see list of EC-type homologation certificate

| Electrical data | |
|----------------------------|--------------------------------------|
| Power supply [Vs] | 10 -30 V DC |
| Reversed polarity of DC | Protected |
| Overvoltage protection | Yes |
| Short circuit protection | Yes |
| Output | Standard 4-20 mA signal, 2 wires |
| Load in Ω | $\leq (V_s [V] - 10 [V]) / 0.02 [A]$ |
| Adjustability: Zero / span | $\pm 10\%$ |
| Response time | ≤ 1 ms |

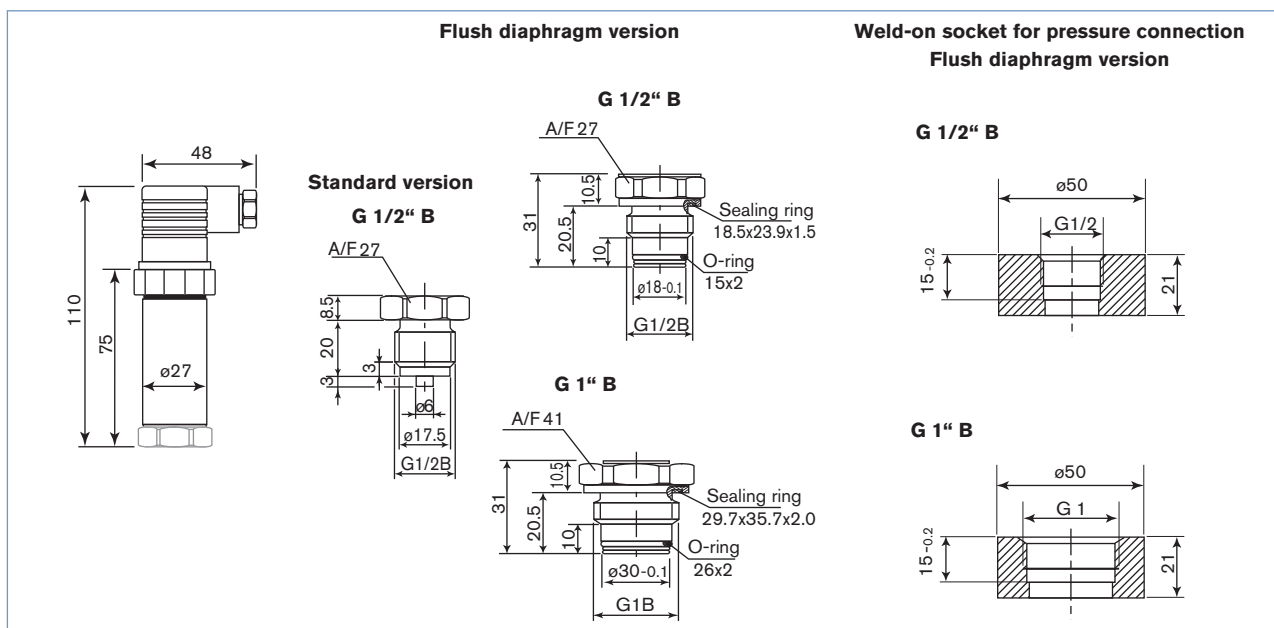
| Environment | |
|-----------------------|------------------|
| Ambient temperature** | -30 up to +100°C |

| Standards, directives and approvals | |
|-------------------------------------|--|
| Protection class | IP65 with cable plug mounted and tightened |
| Standards and directives EMC | EN 50081-1, 50081-2, 50082-2 |

| Specifications EEx | |
|---------------------------|--------------------------------------|
| ⚡-Protection | Categories** 2G {1/2G} |
| ⚡-Certification | EEx ia I/II C T6 (DMT 01 ATEX E 125) |
| Conformity specifications | |
| power supply | 30 VDC |
| short circuit rating | 100 mA |
| power limitation | 1 W |
| medium temperature | -20 up to +60°C |
| ambient temperature | -20 up to +60°C |
| storage temperature | -50 up to +105°C |
| internal capacity Ci | ≤ 22 nF |
| internal inductivity Li | ≤ 100 mH |

** see list of EC-type homologation certificate
(For further safety information please see the EC-type homologation certificate DMT 01 ATEX E 125)

Dimensions [mm]



Ordering chart for Type 8327

| Pressure range [bar] | Pressure max. [bar] | Bursting pressure [bar] | Power supply | Output signal | Item no. Standard | Item no. Flush diaphragm standard G 1/2" B | Item no. Flush diaphragm standard G 1" B |
|----------------------|---------------------|-------------------------|--------------|---------------|-------------------|--|--|
| 0 - 1.0 | 5 | 5 | 10 - 30 V DC | 4-20 mA | 448 693 | - | 448 698 |
| 0 - 2.5 | 10 | 10 | 10 - 30 V DC | 4-20 mA | 448 694 | 448 699 | - |
| 0 - 6.0 | 35 | 35 | 10 - 30 V DC | 4-20 mA | 448 695 | 448 700 | - |
| 0 - 10.0 | 35 | 35 | 10 - 30 V DC | 4-20 mA | 448 696 | 448 701 | - |
| 0 - 16.0 | 80 | 80 | 10 - 30 V DC | 4-20 mA | 448 697 | 448 702 | - |

 Further versions on request


Pressure

0 up to 0.1, 0.16, 0.25, 0.4, 0.6, 1.6, 4.0, 25 bar



Materials

thin film sensor element for transmitter 0 up to 5 bar

Ordering chart for accessories (to be ordered separately)

| Description | Item no. |
|--|----------|
| Weld-on socket for flush diaphragm standard version G 1/2" | 443 295 |
| Weld-on socket for flush diaphragm standard version G 1" | 444 137 |

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