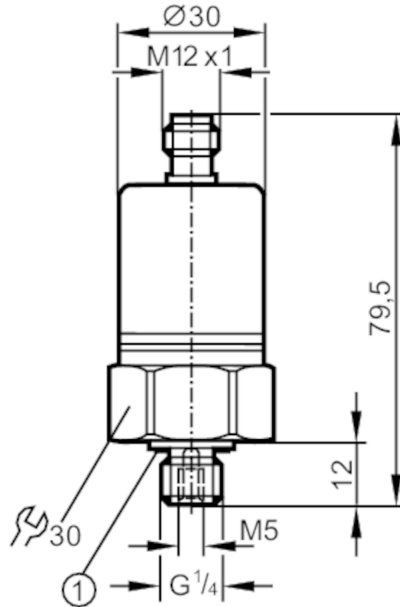




## Pressure transmitter with ceramic measuring cell

PA-100-SBG14-A-ZVG/US/ IV



## 1 Sealing



## Product characteristics

|                              |                                                                                   |              |            |
|------------------------------|-----------------------------------------------------------------------------------|--------------|------------|
| Number of inputs and outputs | Number of analogue outputs: 1                                                     |              |            |
| Measuring range              | 0...100 bar                                                                       | 0...1450 psi | 0...10 MPa |
| Process connection           | threaded connection G 1/4 external thread (DIN EN ISO 1179-2); internal thread:M5 |              |            |

## Application

|                            |                                                    |          |        |
|----------------------------|----------------------------------------------------|----------|--------|
| Special feature            | Gold-plated contacts                               |          |        |
| Application                | for industrial applications                        |          |        |
| Media                      | Liquids                                            |          |        |
| Conditionally suitable for | use in gases at pressures > 25 bar only on request |          |        |
| Medium temperature [°C]    | -25...90; (on request: -40...90 °C)                |          |        |
| Min. bursting pressure     | 650 bar                                            | 9425 psi | 65 MPa |
| Pressure rating            | 300 bar                                            | 4350 psi | 30 MPa |
| Type of pressure           | relative pressure                                  |          |        |

### Electrical data

|                             |      |                 |
|-----------------------------|------|-----------------|
| Operating voltage           | [V]  | 9.6...32 DC     |
| Min. insulation resistance  | [MΩ] | 100; (500 V DC) |
| Protection class            |      | III             |
| Reverse polarity protection |      | yes             |

## Inputs / outputs

|                              |                               |
|------------------------------|-------------------------------|
| Number of inputs and outputs | Number of analogue outputs: 1 |
|------------------------------|-------------------------------|

## Outputs

|                            |                 |
|----------------------------|-----------------|
| Total number of outputs    | 1               |
| Output signal              | analogue signal |
| Number of analogue outputs | 1               |



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|                                    |                                                                                       |                                                                                           |
|------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Analogue current output            | [mA]                                                                                  | 4...20                                                                                    |
| Max. load                          | [Ω]                                                                                   | 720; (U <sub>b</sub> = 24 V; (U <sub>b</sub> - 9,6 V) / 20 mA)                            |
| Overload protection                |                                                                                       | yes                                                                                       |
| <b>Measuring/setting range</b>     |                                                                                       |                                                                                           |
| Measuring range                    | 0...100 bar                                                                           | 0...1450 psi                                                                              |
|                                    |                                                                                       | 0...10 MPa                                                                                |
| <b>Accuracy / deviations</b>       |                                                                                       |                                                                                           |
| Repeatability                      | [% of the span]                                                                       | < 0,1; (with temperature fluctuations < 10 K)                                             |
| Characteristics deviation          | [% of the span]                                                                       | < ± 0,25 (BFSL) / < ± 0,5 (LS); (BFSL = Best Fit Straight Line; LS = limit value setting) |
| Long-term stability                | [% of the span]                                                                       | < ± 0,05; (per 6 months)                                                                  |
| Temperature coefficient zero point | [% of the span / 10 K]                                                                | < ± 0,1; (0...80 °C)                                                                      |
| Temperature coefficient span       | [% of the span / 10 K]                                                                | < ± 0,2; (0...80 °C)                                                                      |
| <b>Response times</b>              |                                                                                       |                                                                                           |
| Step response time analogue output | [ms]                                                                                  | 3                                                                                         |
| <b>Operating conditions</b>        |                                                                                       |                                                                                           |
| Ambient temperature                | [°C]                                                                                  | -25...80                                                                                  |
| Storage temperature                | [°C]                                                                                  | -40...100                                                                                 |
| Protection                         |                                                                                       | IP 68; IP 69K                                                                             |
| <b>Tests / approvals</b>           |                                                                                       |                                                                                           |
| EMC                                | EN 61000-4-2 ESD                                                                      | 4 kV CD / 8 kV AD                                                                         |
|                                    | EN 61000-4-3 HF radiated                                                              | 30 V/m                                                                                    |
|                                    | EN 61000-4-4 Burst                                                                    | 2 kV                                                                                      |
|                                    | EN 61000-4-6 HF conducted                                                             | 10 V                                                                                      |
|                                    | radiation of interference                                                             | according to the automotive directive 2004/104/EC                                         |
|                                    | CISPR 25 immunity                                                                     | according to the automotive directive 2004/104/EC                                         |
|                                    | ISO 11452-2 HF radiated                                                               | 100 V/m                                                                                   |
|                                    | ISO 7637-2 pulse                                                                      | severity level 4                                                                          |
| Shock resistance                   | DIN EN 60068-2-27                                                                     | 50 g (11 ms)                                                                              |
|                                    | DIN EN 61373                                                                          | category 3                                                                                |
| Vibration resistance               | DIN EN 60068-2-6                                                                      | 20 g (10...2000 Hz)                                                                       |
|                                    | DIN EN 61373                                                                          | category 2                                                                                |
| MTTF                               | [years]                                                                               | 507                                                                                       |
| Pressure Equipment Directive       | Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request |                                                                                           |
| Railway applications               | DIN EN 50155 / IEC 60571                                                              | Klasse T3, C1, S1                                                                         |
| <b>Mechanical data</b>             |                                                                                       |                                                                                           |
| Weight                             | [g]                                                                                   | 217.5                                                                                     |
| Housing                            |                                                                                       | cylindrical                                                                               |
| Dimensions                         | [mm]                                                                                  | Ø 30 / L = 79.5                                                                           |
| Materials                          | stainless steel (316L/1.4404); FKM; PA; EPDM/X                                        |                                                                                           |

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|                               |                                                                                            |
|-------------------------------|--------------------------------------------------------------------------------------------|
| Materials (wetted parts)      | stainless steel (303/1.4305); ceramics; Sealing: FKM                                       |
| Min. pressure cycles          | 100 million                                                                                |
| Tightening torque [Nm]        | 25...35; (recommended tightening torque; depends on lubrication, seal and pressure rating) |
| Process connection            | threaded connection G 1/4 external thread (DIN EN ISO 1179-2); internal thread:M5          |
| Restrictor element integrated | no (can be retrofitted)                                                                    |

Remarks

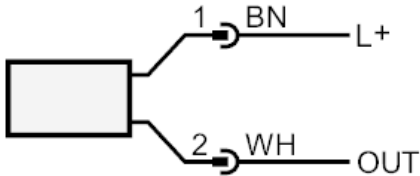
|               |        |
|---------------|--------|
| Pack quantity | 1 pcs. |
|---------------|--------|

Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated



Connection



OUT                    analogue output  
                         colours to DIN EN 60947-5-2  
                         Core colours :  
BN =                    brown  
WH =                    white