

PA9024



Pressure transmitter with ceramic measuring cell

PA-010-RBR14-B-DVG/US/V



| Product characteristics         |                                           |             |              |           |
|---------------------------------|-------------------------------------------|-------------|--------------|-----------|
| Number of inputs and outputs    | Number of analog outputs: 1               |             |              |           |
| Measuring range                 | 0...10 bar                                | 0...145 psi | 0...1000 kPa | 0...1 MPa |
| Process connection              | threaded connection G 1/4 Internal thread |             |              |           |
| Application                     |                                           |             |              |           |
| System                          | gold-plated contacts                      |             |              |           |
| Application                     | for industrial applications               |             |              |           |
| Media                           | liquids and gases                         |             |              |           |
| Medium temperature [°C]         | -25...90; (on request: -40...90 °C)       |             |              |           |
| Min. burst pressure             | 150 bar                                   | 2175 psi    | 15 MPa       |           |
| Pressure rating                 | 75 bar                                    | 1088 psi    | 7.5 MPa      |           |
| Type of pressure                | relative pressure                         |             |              |           |
| Electrical data                 |                                           |             |              |           |
| Operating voltage [V]           | 16...32 DC                                |             |              |           |
| Current consumption [mA]        | < 18                                      |             |              |           |
| Min. insulation resistance [MΩ] | 100; (500 V DC)                           |             |              |           |
| Protection class                | III                                       |             |              |           |
| Reverse polarity protection     | yes                                       |             |              |           |
| Inputs / outputs                |                                           |             |              |           |
| Number of inputs and outputs    | Number of analog outputs: 1               |             |              |           |
| Outputs                         |                                           |             |              |           |
| Total number of outputs         | 1                                         |             |              |           |
| Output signal                   | analog signal                             |             |              |           |
| Number of analog outputs        | 1                                         |             |              |           |



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|                       |     |        |
|-----------------------|-----|--------|
| Analog voltage output | [V] | 0...10 |
| Min. load resistance  | [Ω] | 2000   |
| Overload protection   |     | yes    |

## Measuring/setting range

|                 |            |             |              |           |
|-----------------|------------|-------------|--------------|-----------|
| Measuring range | 0...10 bar | 0...145 psi | 0...1000 kPa | 0...1 MPa |
|-----------------|------------|-------------|--------------|-----------|

## Accuracy / deviations

|                                    |                        |                                                                                           |
|------------------------------------|------------------------|-------------------------------------------------------------------------------------------|
| 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)                                                                          |

## Reaction times

|                                  |      |   |
|----------------------------------|------|---|
| Step response time analog output | [ms] | 3 |
|----------------------------------|------|---|

## Operating conditions

|                     |      |           |
|---------------------|------|-----------|
| Ambient temperature | [°C] | -25...80  |
| Storage temperature | [°C] | -40...100 |
| Protection          |      | IP 65     |

## Tests / approvals

|                              |                                                                                       |                                                   |
|------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------|
| 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                                                                              |                                                   |
|                              | noise immunity                                                                        | according to the automotive directive 2004/104/EC |
|                              | ISO 11452-2 HF radiated                                                               | 100 V/m                                           |
|                              | ISO 7637-2 pulse                                                                      | severity level 4                                  |
|                              | DIN EN 60068-2-27                                                                     | 50 g (11 ms)                                      |
| Shock resistance             | DIN EN 61373                                                                          | Category 3                                        |
| Vibration resistance         | DIN EN 60068-2-6                                                                      | 20 g (10...2000 Hz)                               |
|                              | DIN EN 61373                                                                          | Category 2                                        |
| MTTF                         | [years]                                                                               | 478                                               |
| 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                                 |

## Mechanical data

|            |      |                                                  |
|------------|------|--------------------------------------------------|
| Weight     | [g]  | 222                                              |
| Housing    |      | tubular                                          |
| Dimensions | [mm] | Ø 30 / L = 75                                    |
| Material   |      | stainless steel (1.4404 / 316L); FKM; PA; EPDM/X |

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|                               |                                               |
|-------------------------------|-----------------------------------------------|
| Materials (wetted parts)      | stainless steel (1.4305 / 303); ceramics; FKM |
| Min. pressure cycles          | 100 million                                   |
| Process connection            | threaded connection G 1/4 Internal thread     |
| Restrictor element integrated | no (can be retrofitted)                       |

Remarks

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

Electrical connection

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



Connection

