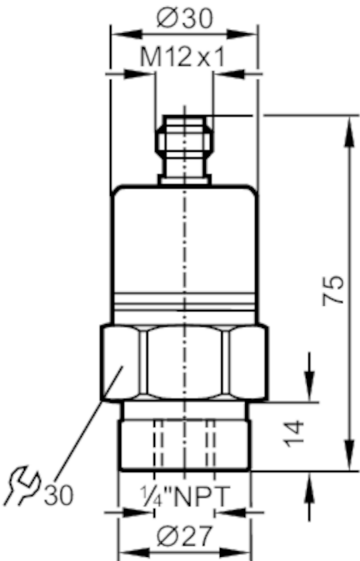


PA3221



Pressure transmitter with ceramic measuring cell

PA-250-SBN14-A-ZVG/US/ IV



| Product characteristics      |                                                       |                 |            |
|------------------------------|-------------------------------------------------------|-----------------|------------|
| Number of inputs and outputs | Number of analog outputs: 1                           |                 |            |
| Measuring range              | 0...250 bar                                           | 0...3625 psi    | 0...25 MPa |
| Process connection           | threaded connection 1/4" NPT Internal thread          |                 |            |
| Application                  |                                                       |                 |            |
| Special feature              | gold-plated contacts                                  |                 |            |
| Application                  | for industrial applications; for railway applications |                 |            |
| Media                        | liquids and gases                                     |                 |            |
| Conditionally suitable for   | use in gases at pressures > 25 bar only on request    |                 |            |
| Medium temperature           | [°C] -25...90; (on request: -40...90 °C)              |                 |            |
| Min. burst pressure          | 1000 bar                                              | 14500 psi       | 100 MPa    |
| Pressure rating              | 600 bar                                               | 8700 psi        | 60 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 analog outputs: 1                           |                 |            |
| Outputs                      |                                                       |                 |            |
| Total number of outputs      | 1                                                     |                 |            |
| Output signal                | analog signal                                         |                 |            |
| Number of analog outputs     | 1                                                     |                 |            |



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|                       |      |                                                                |
|-----------------------|------|----------------------------------------------------------------|
| Analog 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                                                            |

## Measuring/setting range

|                 |             |              |            |
|-----------------|-------------|--------------|------------|
| Measuring range | 0...250 bar | 0...3625 psi | 0...25 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 68; IP 69K |

## 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]                                                                               | 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                                 |

## Mechanical data

|            |      |                                                  |
|------------|------|--------------------------------------------------|
| Weight     | [g]  | 226.5                                            |
| 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 1/4" NPT Internal thread  |
| Restrictor element integrated | no (can be retrofitted)                       |

Remarks

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

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated



Connection

