

## Bourdon tube pressure gauge per EN 837-1

stainless steel industrial design, NS 100

Type series BA52..



### Application area

- Plant and mechanical engineering
- Chemical and petrochemical industry
- General process technology

### Features

- Bourdon tube pressure gauge industrial design
- Nominal ranges -0.6...0 bar to -1...24 bar, 0...0.6 to 0...1000 bar
- High quality case with bajonet ring NS 100 per EN 837-1 S1
- Case and measuring element of stainless steel
- Degree of protection IP 65
- Accuracy class 1.0 as per EN 837-1

### Options

- Approvals / Certificates
  - Calibration certificate as per EN 10204
- As per UKCA regulations
- Case with liquid filling
- Electrical contact device, see data sheet D3-025 (depending on design)
- Mounting: front flange for flush mounting

### Application

The bourdon tube pressure gauge is suitable for use in various industries. High quality stainless steel design for measuring gaseous, liquid and aggressive media. Designed according to safety standards per EN 837-1.

## Technical data

### Constructional design / case

|                                    |                                                                                                                                                                         |                |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Design:                            | High quality case with bajonet ring per EN 837-1 S1, material: stainless steel mat.-no. 1.4301 (304) ; blow-out device, material: PUR, ventilation valve, material: PUR |                |
| Nominal size:                      | NS 100                                                                                                                                                                  |                |
| Degree of protection per EN 60529: | <ul style="list-style-type: none"> <li>■ without filling: IP 65</li> <li>■ with filling: IP 65</li> </ul>                                                               |                |
| Case filling:                      | Option:<br>Glycerine-water<br>Further liquid fillings upon request.                                                                                                     |                |
| Atmosph. pressure compensation:    | Via ventilation valve.                                                                                                                                                  |                |
| Case seal:                         | Material gasket: NBR                                                                                                                                                    |                |
| Window:                            | Non-splintering laminated glass.<br>Option: Non-splintering plastic (polycarbonate)                                                                                     |                |
| Measuring element:                 | Bourdon tube<br><br>< 60 bar: c-type<br>≥ 60 bar: spiral                                                                                                                |                |
| Movement:                          | Stainless steel segment                                                                                                                                                 |                |
| Scale:                             | Pure aluminium, white with black inscription<br>Optional with red marking, special scale upon request                                                                   |                |
| Pointer:                           | Pure aluminium, black                                                                                                                                                   |                |
| Mounting:                          | Stand-alone, upon request for flush mounting with DIN mounting flange                                                                                                   |                |
| Weights:                           | without filling                                                                                                                                                         | approx. 0.5 kg |
|                                    | with filling                                                                                                                                                            | approx. 0.8 kg |

### Process connection

|         |                                                                                                                                                       |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Design: | Per EN 837-1, G 1/2 B or 1/2" NPT. Bottom or back centric connection, option: eccentric back connection.<br>Further process connections upon request. |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------|

### Material wetted parts

|                    |                                                                                    |
|--------------------|------------------------------------------------------------------------------------|
| Measuring element: | Bourdon tube and shanks<br>stainless steel mat.-no. 1.4571 / 1.4404 (316Ti / 316L) |
|--------------------|------------------------------------------------------------------------------------|

### Nominal range

See order details, further information upon request

|                      |                                                                          |
|----------------------|--------------------------------------------------------------------------|
| Overload protection: | Standard: 1.3times<br>Optional: Measuring range up to 160 bar: 1.5 times |
|----------------------|--------------------------------------------------------------------------|

For information on definitions of terms regarding the Pressure Equipment Directive, see Technical Instruction TA\_068.

### Accuracy

|                        |                                                       |
|------------------------|-------------------------------------------------------|
| Accuracy class:        | 1.0 per EN 837-1                                      |
| Temperature influence: | Max. $\pm 0,4\%$ / 10K of measuring span per EN 837-1 |

### Temperature ranges

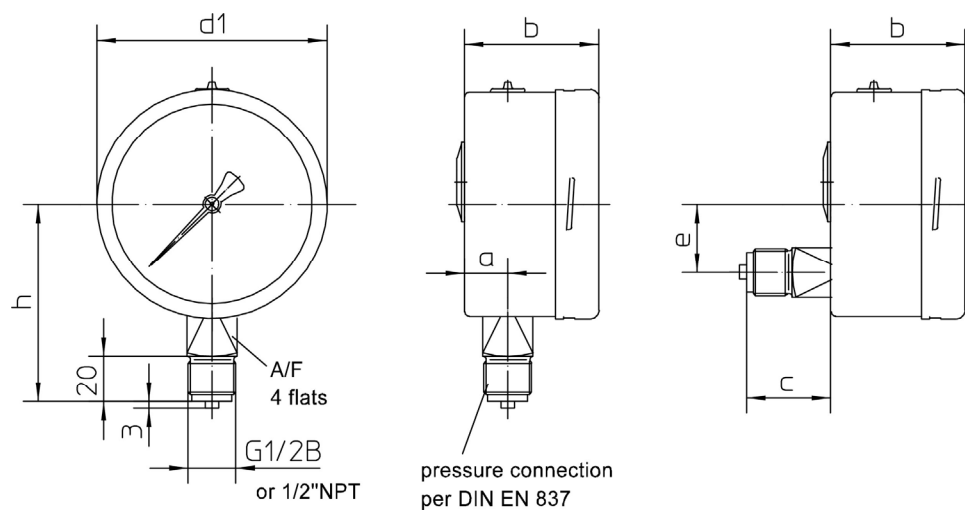
|          | without filling | with filling |
|----------|-----------------|--------------|
| Ambient: | -20...60 °C     | -20...60 °C  |
| Media:   | -20...150 °C    | -20...100 °C |
| Storage: | -40...70 °C     | -40...70 °C  |

Extended temperature range upon request.

### Tests and certificates

Information on other models see order details or upon request.

## Dimensions



**Dimensions (mm)**

| Case   | $d1$ | $a$  | $b$ | $e$ | $h$ | $c$ | A/F |
|--------|------|------|-----|-----|-----|-----|-----|
| NS 100 | 101  | 15.6 | 49  | 30  | 86  | 40  | 22  |

## Order details

| Bourdon tube pressure gauge NS 100 per EN 837-1, stainless steel industrial design |                     |                                                      |                           |
|------------------------------------------------------------------------------------|---------------------|------------------------------------------------------|---------------------------|
| BA5200                                                                             | case design         | NS 100, degree of protection IP 65                   | process connection bottom |
| BA5210                                                                             |                     |                                                      | process connection back   |
| BA5220                                                                             |                     | NS 100, degree of protection IP 65 with case filling | process connection bottom |
| BA5230                                                                             |                     |                                                      | process connection back   |
|                                                                                    |                     |                                                      |                           |
| A2...                                                                              | process connection  | G1/2 B                                               |                           |
| B2...                                                                              |                     | 1/2" NPT                                             |                           |
| 085                                                                                | nominal range [bar] | -0.6...0                                             |                           |
| 086                                                                                |                     | -1...0                                               |                           |
| 087                                                                                |                     | -1...0.6                                             |                           |
| 088                                                                                |                     | -1...1.5                                             |                           |
| 089                                                                                |                     | -1...3                                               |                           |
| 090                                                                                |                     | -1...5                                               |                           |
| 091                                                                                |                     | -1...9                                               |                           |
| 092                                                                                |                     | -1...15                                              |                           |
| 093                                                                                |                     | -1...24                                              |                           |
| 052                                                                                |                     | 0...0.6                                              |                           |
| 053                                                                                |                     | 0...1                                                |                           |
| 054                                                                                |                     | 0...1.6                                              |                           |
| 055                                                                                |                     | 0...2.5                                              |                           |
| 056                                                                                |                     | 0...4                                                |                           |
| 057                                                                                |                     | 0...6                                                |                           |
| 058                                                                                |                     | 0...10                                               |                           |
| 059                                                                                |                     | 0...16                                               |                           |
| 060                                                                                |                     | 0...25                                               |                           |
| 061                                                                                |                     | 0...40                                               |                           |
| 062                                                                                |                     | 0...60                                               |                           |
| 063                                                                                |                     | 0...100                                              |                           |
| 064                                                                                |                     | 0...160                                              |                           |
| 065                                                                                |                     | 0...250                                              |                           |
| 066                                                                                |                     | 0...400                                              |                           |
| 068                                                                                |                     | 0...600                                              |                           |
| 070                                                                                |                     | 0...1000                                             |                           |

| Additional features (to be indicated if required) |                                |                                                         |                      |
|---------------------------------------------------|--------------------------------|---------------------------------------------------------|----------------------|
| H4                                                | overload protection            | 1.5 times                                               |                      |
| I2                                                | pointer                        | with micro adjustment                                   |                      |
| R11                                               | window                         | Polycarbonate                                           |                      |
| R2                                                |                                | non-splintering glass with maximum pointer              |                      |
| R3                                                |                                | non-splintering glass with adjustable reference pointer |                      |
| R12                                               |                                | Polycarbonat with maximum pointer                       |                      |
| R13                                               |                                | Polycarbonat with adjustable reference pointer          |                      |
| T2                                                | marking                        | on scale (please specify)                               |                      |
| T3                                                |                                | fast reference pointer (please specify)                 |                      |
| U2                                                | system damping                 | restrictor screw 0.3 mm                                 |                      |
| U3                                                |                                | restrictor screw 0.6 mm                                 |                      |
| U4                                                |                                | restrictor screw 1.0 mm                                 |                      |
| R61                                               | position of process connection | 9 o'clock                                               | without case filling |
| R62                                               |                                | 3 o'clock                                               |                      |
| R63                                               |                                | 12 o'clock                                              |                      |
| V3                                                | mounting                       | front flange for flush mounting                         |                      |
| W1204                                             | calibration certificate        | per EN 10204-3.1, 3 measuring points                    |                      |
| W1201                                             |                                | per EN 10204-3.1, 5 measuring points                    |                      |
| W2660                                             | as per UKCA regulations        |                                                         |                      |

Order code (example): BA5200 – A2057 – ...