

# Digital gauge for general industrial applications Model DG-10

WIKA Data Sheet PE 81.66



## Applications

- Mechanical engineering
- Hydraulics / Pneumatics
- Pumps / Compressors
- Service

## Special Features

- Pressure ranges: from 0 ... 2 bar up to 0 ... 600 bar
- Display accuracy: 0,5 %  $\pm$  1 Digit
- Pressure connection: G1/4 DIN 3852-E, 1/4NPT and others
- Case: Stainless steel, Nominal size 80 mm
- Power supply: 2x 1,5 V Mignon cell AA



Digital gauge DG-10

## Description

### Robust, precise local display

The durable stainless steel housing and stand-alone battery power supply enable its flexible use across a range of applications and industries. For precise and fast pressure readings, a local digital display is the ideal solution. The bar graph indicator, integrated into the display, with its trailing pointer function, as well as a stored MIN/MAX peak value, enable the effective analysis of the measuring point.

### Standard and Enhanced Models

For poor lighting conditions, an "enhanced" model (DG-10-E) with a back-lit display and a rotatable housing is available, allowing its optimisation to the local conditions. Additional configurable functions are: Auto Power-off, tare function, password protection. The standard design (DG-10-S) already allows the user to switch easily between the most widely-accepted international measurement units; bar, psi and MPa.

### Proven measurement technology

Sensors manufactured by WIKA have, for decades, been a guarantee of high accuracy, long-term stability and repeatability within industrial pressure measurement. The most suitable sensor technology - metal thin-film or ceramic - is used, depending on each application and the measuring range.

## Specifications

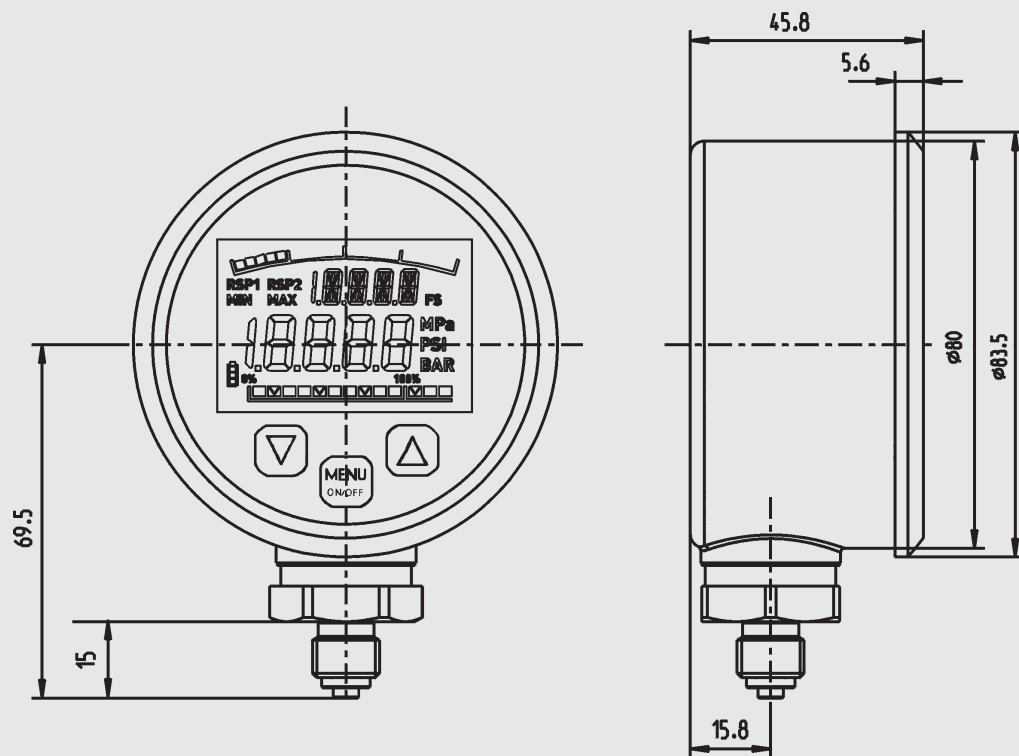
## Model DG-10

|                                                        |           |                                                                   |       |                                        |                                          |       |       |
|--------------------------------------------------------|-----------|-------------------------------------------------------------------|-------|----------------------------------------|------------------------------------------|-------|-------|
| Pressure ranges                                        | bar       | 2                                                                 | 5     | 10                                     | 20                                       | 50    | 100   |
| Over pressure safety                                   | bar       | 5                                                                 | 10    | 20                                     | 40                                       | 100   | 200   |
| Burst pressure                                         | bar       | 6                                                                 | 12    | 25                                     | 50                                       | 120   | 800   |
| Pressure ranges                                        | bar       | 160                                                               | 250   | 400                                    | 600                                      |       |       |
| Over pressure safety                                   | bar       | 320                                                               | 500   | 800                                    | 1200                                     |       |       |
| Burst pressure                                         | bar       | 1000                                                              | 1200  | 1700                                   | 2400                                     |       |       |
| Pressure ranges                                        | psi       | 30                                                                | 60    | 145                                    | 300                                      | 600   | 1450  |
| Over pressure safety                                   | psi       | 70                                                                | 145   | 290                                    | 580                                      | 1450  | 2900  |
| Berstdruck                                             | psi       | 85                                                                | 170   | 360                                    | 725                                      | 1740  | 11600 |
| Pressure ranges                                        | psi       | 2000                                                              | 3000  | 5000                                   | 7500                                     | 10000 |       |
| Over pressure safety                                   | psi       | 4640                                                              | 7250  | 11600                                  | 17400                                    | 21750 |       |
| Berstdruck                                             | psi       | 14500                                                             | 17400 | 24650                                  | 34800                                    | 43500 |       |
| Materials                                              |           |                                                                   |       |                                        |                                          |       |       |
| ■ Wetted parts                                         |           |                                                                   |       |                                        |                                          |       |       |
| » Pressure connection                                  |           | 1.4571                                                            |       |                                        |                                          |       |       |
| » Pressure sensor                                      |           | Ceramic Al <sub>2</sub> O <sub>3</sub> 96%, NBR {EPDM }           |       |                                        | (up to 0 ... 50 bar)                     |       |       |
|                                                        |           | XM-13 (1.4534)                                                    |       |                                        | (as of 0 ... 100bar)                     |       |       |
| ■ Case                                                 |           | 1.4301                                                            |       |                                        |                                          |       |       |
| Power supply                                           |           | 2x 1.5 V Mignon cell AA                                           |       |                                        |                                          |       |       |
| Operating time                                         | h         | 4000 (AA 2000 mAh)                                                |       |                                        |                                          |       |       |
| Internal sampling rate                                 | ms        | 200                                                               |       |                                        |                                          |       |       |
| Insulation voltage                                     | VDC       | 500                                                               |       |                                        |                                          |       |       |
| Display accuracy                                       | % of span | ≤ ± 0.5 ± 1 Digit                                                 |       | (according to IEC 61298-2)             |                                          |       |       |
| Zero Offset                                            | % of span | ≤ 0.1                                                             |       | (Power-up reset)                       |                                          |       |       |
| Adjustability zero                                     | % of span | ≤ 20                                                              |       | (via Tara-Function with model DG-10-E) |                                          |       |       |
| Hysteresis                                             | % of span | ≤ 0.1                                                             |       |                                        |                                          |       |       |
| Non-repeatability                                      | % of span | ≤ 0.1                                                             |       |                                        |                                          |       |       |
| Long-term stability per year                           | % of span | ≤ 0.2                                                             |       |                                        |                                          |       |       |
| Long-term drift                                        | % of span | ≤ 0.1                                                             |       |                                        |                                          |       |       |
| Permissible temperature of                             |           |                                                                   |       |                                        |                                          |       |       |
| ■ Medium                                               | °C        | -20 ... +85                                                       |       | (up to 0 ... 50 bar)                   |                                          |       |       |
|                                                        | °C        | -30 ... +100                                                      |       | (as of 0 ... 100bar)                   |                                          |       |       |
| ■ Ambience                                             | °C        | -10 ... +60                                                       |       |                                        |                                          |       |       |
| ■ Storage                                              | °C        | -20 ... +70                                                       |       |                                        |                                          |       |       |
| Operating temperature range                            | °C        | 0 ... +60                                                         |       |                                        |                                          |       |       |
| Temperature coefficients within compensated temp range |           |                                                                   |       |                                        |                                          |       |       |
| ■ Mean TC of zero                                      | % of span | ≤ 0.15 / 10k                                                      |       |                                        |                                          |       |       |
| ■ Mean TC of span                                      | % of span | ≤ 0.15 / 10k                                                      |       |                                        |                                          |       |       |
| CE-conformity                                          |           |                                                                   |       |                                        |                                          |       |       |
| ■ Pressure equipment directive                         |           | 97/23/EC                                                          |       |                                        |                                          |       |       |
| ■ EMC directive                                        |           | 89/336/EEC emission (class B) and immunity according to EN 61 326 |       |                                        |                                          |       |       |
| Rotatability of case                                   | °         | 300 (with model DG-10-E)                                          |       |                                        |                                          |       |       |
|                                                        |           | <b>DG-10-S</b>                                                    |       |                                        | <b>DG-10-E</b>                           |       |       |
| Principle                                              |           | 7 segment LCD 4 digit                                             |       |                                        | 7 segment LCD 4 1/2 digit                |       |       |
|                                                        |           |                                                                   |       |                                        | 14 segment LCD 4 1/2 digit (2nd display) |       |       |
| Digit size                                             |           | 11 mm                                                             |       |                                        | 11 mm and 7 mm                           |       |       |
| Display                                                |           | -1999 ... 9999                                                    |       |                                        | -1999 ... 19999                          |       |       |
| Background illumination                                |           | ---                                                               |       |                                        | +                                        |       |       |
| Bar graph with trailing pointer function               |           | +                                                                 |       |                                        | +                                        |       |       |
| Min/Max memory                                         |           | +                                                                 |       |                                        | +                                        |       |       |
| Auto On/Off                                            |           | ---                                                               |       |                                        | 15/30/60/120 min                         |       |       |
| Tara adjustment                                        |           | ---                                                               |       |                                        | +                                        |       |       |
| Units bar, psi, MPa                                    |           | +                                                                 |       |                                        | +                                        |       |       |
| Password protection                                    |           | ---                                                               |       |                                        | +                                        |       |       |
| Reset factory setting                                  |           | ---                                                               |       |                                        | +                                        |       |       |
| Weight                                                 | g         | Approx. 400                                                       |       |                                        |                                          |       |       |

{ } Items in curved brackets are optional extras for additional price.

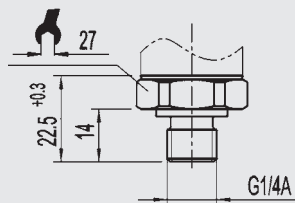
## Dimensions in mm

Ingress protection IP 65 per IEC 60529.

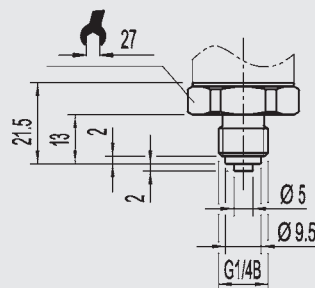


## Pressure connections

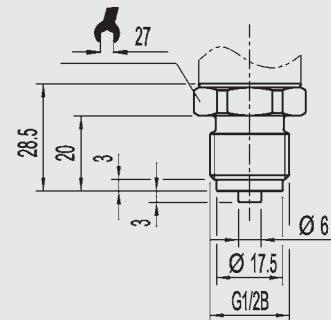
G 1/4  
DIN 3852-E  
with sealing  
NBR, EPDM or FKM  
Over pressure safety max. 600 bar



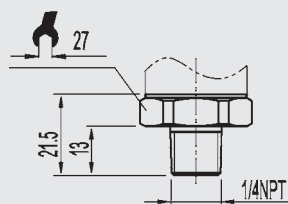
G 1/4  
EN 837



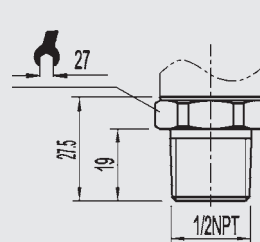
G 1/2  
EN 837



1/4 NPT



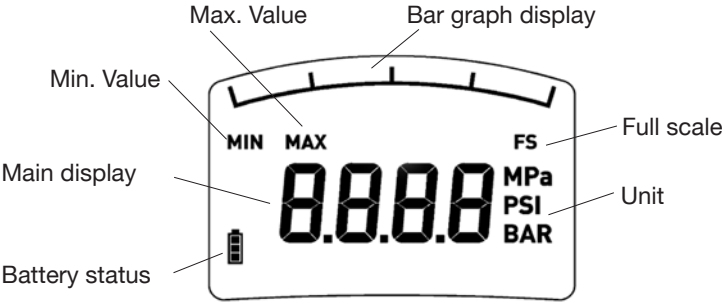
1/2 NPT



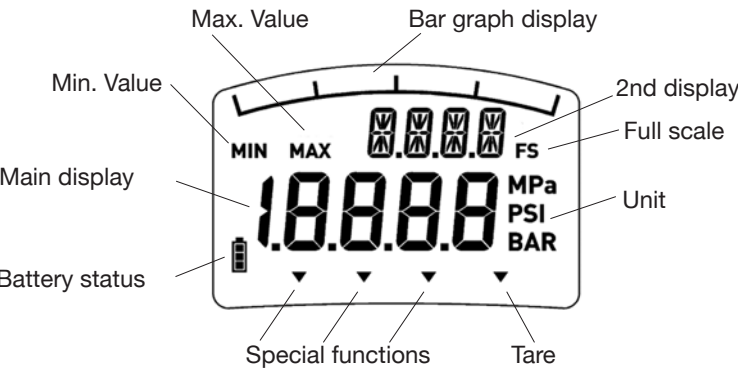
For tapped holes and welding sockets please see Technical Information IN 00.14 for download at [www.wika.de](http://www.wika.de)

Description of the Display

DG-10-S



DG-10-E

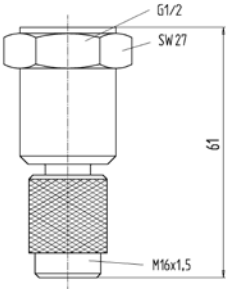


Accessories

Protection cap  
(black, vulcanised rubber)  
Order code: 11262010



Gauge adapter system Mininess  
Order code: 9072314



Specifications and dimensions given in this leaflet represent the state of engineering at the time of printing. Modifications may take place and materials specified may be replaced by others without prior notice.

