



# BAROLI 02P

## Battery Powered Digital Pressure Gauge

## Stainless Steel Diaphragm Flush Welded

class 0.2

Digital Pressure Gauge

BAROLI 02P

### **Nominal pressure**

from 0 ... 100 mbar  
up to 0 ... 40 bar

### **Special characteristics**

- ▶ rotatable housing
- ▶ 2-line LC display  
4.5-digit 7-segment display  
6-digit 14-segment additional display
- ▶ hygienic process connections

### **Functions**

- ▶ min / max function with  
reset function
- ▶ offset and end point calibration
- ▶ setting the pressure unit
- ▶ configuration of switch-off automatic

CE

The battery-powered digital pressure gauge *BAROLI 02P* with flush welded stainless steel sensor enables a local displaying of values in applications, where high requirements on hygienic process connections and easy cleaning or sterilisability are requested. The filling medium is food compatible oil with FDA approval.

The *BAROLI 02P* display housing is rotatable, thus ensuring an easy reading even under unfavorable mounting conditions.

Additional functions as switching the unit, displaying min / max values, calibrating the offset and the end point, as well as configuring the automatic switching-off complete the profile.

### **Preferred areas of use are**



Food Industry

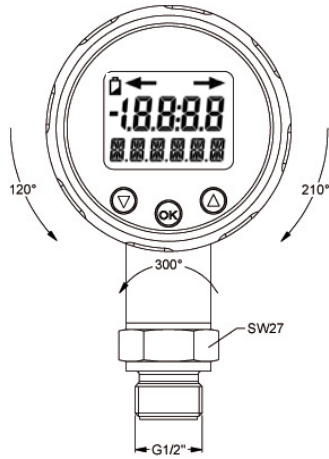


Pharmacy

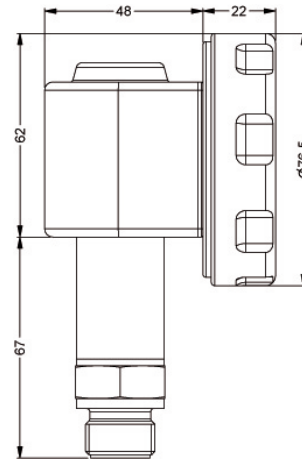
| Input pressure ranges <sup>1</sup>   |   |      |  |      |                  |             |     |     |
|--|---|------|--|------|------------------|-------------|-----|-----|
| Nominal pressure gauge / abs. [bar]  | -1 ... 0  | 0.10 | 0.16   | 0.25 | 0.40             | 0.60        | 1   | 1.6 |
| Overpressure [bar]   | 5   | 0.5  | 1  | 1    | 2                | 5           | 5   | 10  |
| Burst pressure ≥ [bar]   | 7.5   | 1.5  | 1.5  | 1.5  | 3                | 7.5         | 7.5 | 15  |
| Nominal pressure gauge / abs. [bar]  | 2,5   | 4    | 6  | 10   | 16               | 25          | 40  |     |
| Overpressure [bar]   | 10  | 20   | 40   | 40   | 80               | 80          | 105 |     |
| Burst pressure ≥ [bar]   | 15  | 25   | 50   | 50   | 120              | 120         | 210 |     |
| Vacuum resistance  | P <sub>N</sub> ≥ 1 bar: unlimited vacuum resistance<br>P <sub>N</sub> < 1 bar: on request   |      |  |      |                  |             |     |     |
| <sup>1</sup> consider the pressure resistance of fitting and clamps  |   |      |  |      |                  |             |     |     |
| Performance  |   |      |  |      |                  |             |     |     |
| Accuracy <sup>1</sup>  | standard: nominal pressure ≥ 0.4 bar : ≤ ± 0.125 % BFSL<br>nominal pressure < 0.4 bar: ≤ ± 0.25 % BFSL  |      |  |      |                  |             |     |     |
| Measuring rate   | 5/sec   |      |  |      |                  |             |     |     |
| <sup>1</sup> accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)                                     |   |      |  |      |                  |             |     |     |
| Thermal effects (Offset and Span)  |   |      |  |      |                  |             |     |     |
| Nominal pressure P <sub>N</sub> [bar]  | -1 ... 0  |      | < 0.40   |      |                  | ≥ 0.40      |     |     |
| Tolerance band [% FSO]   | ≤ ± 0.75  |      | ≤ ± 1.5  |      |                  | ≤ ± 0.75    |     |     |
| in compensated range [°C]  | 0 ... 70 °C   |      | 0 ... 50 °C  |      |                  | 0 ... 70 °C |     |     |
| Permissible temperatures   |   |      |  |      |                  |             |     |     |
| Permissible temperatures <sup>2</sup>  | medium:   |      | -40 ... 125 °C for filling fluid of silicon oil<br>-10 ... 125 °C for filling fluid of food compatible oil   |      |                  |             |     |     |
|  | environment:  |      | -20 ... 70 °C  |      |                  |             |     |     |
|  | storage:  |      | -30 ... 80 °C  |      |                  |             |     |     |
| <sup>2</sup> max. temperature of the medium for nominal pressure gauge > 0 bar: 150 °C for 60 minutes with a max. environmental temperature of 50 °C |   |      |  |      |                  |             |     |     |
| Mechanical stability   |   |      |  |      |                  |             |     |     |
| Vibration  | 5 g RMS (25 ... 2000 Hz)  |      | according to IEC 60068-2-6   |      |                  |             |     |     |
| Shock  | 100 g / 1 msec  |      | according to IEC 60068-2-27  |      |                  |             |     |     |
| Materials / Filling fluids   |   |      |  |      |                  |             |     |     |
| Housing  | stainless steel 1.4404  |      |  |      |                  |             |     |     |
| Pressure port  | stainless steel 1.4404  |      |  |      | other on request |             |     |     |
| Display housing  | PA 6.6, polycarbonate   |      |  |      |                  |             |     |     |
| Seals (media wetted)   | standard:   |      | FKM  |      |                  |             |     |     |
|  | clamp and dairy pipe:   |      | none   |      |                  |             |     |     |
| Diaphragm  | stainless steel 1.4435  |      |  |      |                  |             |     |     |
| Media wetted parts   | pressure port, seals, diaphragm   |      |  |      |                  |             |     |     |
| Filling fluids   | standard:   |      | silicon oil  |      |                  |             |     |     |
|  | option:   |      | food compatible oil with FDA-certificate<br>(mobile DTE FM 32; class code: H1; NFS registration Nr.: 130662) |      |                  |             |     |     |
|  |   |      | other on request   |      |                  |             |     |     |
| Miscellaneous  |   |      |  |      |                  |             |     |     |
| Display  | LC display, visible range 40 x 30 mm;<br>4.5-digit 7-segment-display, digit height 11 mm, range of indication ±19999;<br>6-digit 14-segment additional display, digit height 7.5 mm               |      |  |      |                  |             |     |     |
| Electromagnetic compatibility  | emission and immunity according to EN 61326   |      |  |      |                  |             |     |     |
| Supply   | 3.6 V Lithium battery; 2 pieces (type 1/2 AA)   |      |  |      |                  |             |     |     |
| Data storage   | EEPROM (non-volatile)   |      |  |      |                  |             |     |     |
| Ingress protection   | IP 65   |      |  |      |                  |             |     |     |
| Installation position  | any<br>(standard: the device is calibrated in a vertical position with the pressure connection down;<br>other than the given position for P <sub>N</sub> ≤ 2 bar have to be declared at ordering) |      |  |      |                  |             |     |     |
| Weight   | min. 350 g (pendent on the pressure connection)   |      |  |      |                  |             |     |     |
| AD-converter solution  | 14 Bit  |      |  |      |                  |             |     |     |
| Operational life of battery  | standby mode: approx. 5 years   |      |  |      |                  |             |     |     |
| mech. operational life   | > 100 x 10 <sup>6</sup> pressure cycles   |      |  |      |                  |             |     |     |
| CE-conformity  | EMV Directive: 2004/108/EG  |      |  |      |                  |             |     |     |

### Dimensions (in mm)

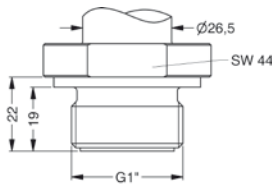
#### standard



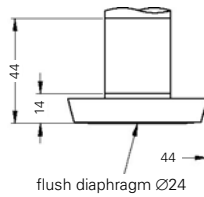
G1/2" flush  
(DIN 3852) for  $P_N \geq 1$  bar



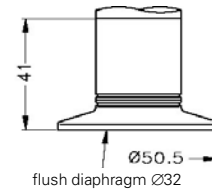
#### option



G1" flush  
(DIN 3852)



dairy pipe DN25  
(DIN11851)



clamp 1 1/2"  
(ISO 2852)

