

## BAROLI 02P

### Battery Powered Digital Pressure Gauge

Stainless Steel Diaphragm  
Flush Welded

class 0.1

#### 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

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 sterilization 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 unfavourable mounting conditions.

#### Additional functions:

switching the unit, displaying min / max values, calibrating the offset and the end point, configuring the automatic switching-off

#### Preferred areas of use are

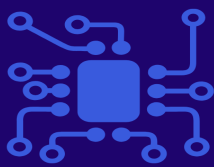


Food industry

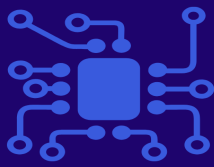


Pharmacy

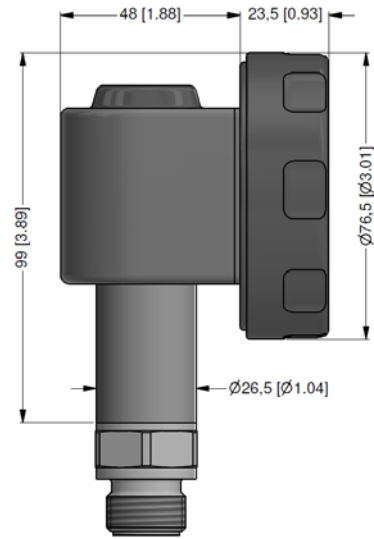
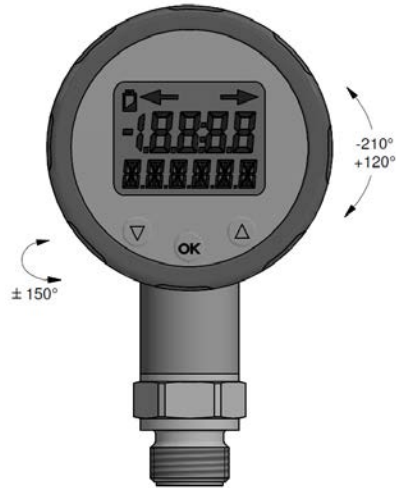




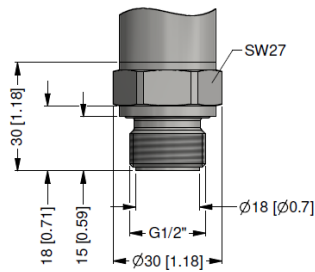
Input pressure ranges <sup>1</sup>									
Nominal pressure gauge	[bar]	-1 ... 0	0.10	0.16	0.25	0.40	0.60	1	1.6
Nominal pressure absolute	[bar]	-	-	-	-	0.40	0.60	1	1.6
Overpressure	[bar]	5	0.5	1	1	2	5	5	10
Burst pressure ≥	[bar]	7.5	1.5	1.5	1.5	3	7.5	7.5	15
Nominal pressure gauge / absolute	[bar]	2.5	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 p <sub>N</sub> < 1 bar: on request							
<sup>1</sup> consider the pressure resistance of fitting and clamps									
Performance									
Accuracy <sup>2</sup>		nominal pressure ≥ 0.4 bar :    ≤ ± 0.125 % BFSL nominal pressure < 0.4 bar:    ≤ ± 0.25    % BFSL							
Measuring rate		5/sec							
<sup>2</sup> accuracy according to IEC 60770 – minimum value setting (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									
Medium <sup>3</sup>		filling fluid of silicone oil:			-40 ... 125 °C				
		filling fluid of food compatible oil:			-10 ... 125 °C				
Environment		-20 ... 70 °C							
Storage		-30 ... 80 °C							
<sup>3</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 (316 L)							
Pressure port		inch thread:		stainless steel 1.4404 (316 L)					
		Clamp, dairy pipe:		stainless steel 1.4435 (316 L)					
		other on request							
Display housing		PA 6.6, polycarbonate							
Seals (media wetted)		standard:		FKM					
		clamp and dairy pipe:		none					
Diaphragm		stainless steel 1.4435 (316 L)							
Media wetted parts		pressure port, seals, diaphragm							
Filling fluids		standard:		silicone oil					
		option:		food compatible oil with FDA-certificate (mobile SHC Cibus 32; class code: H1; NFS registration no.: 141500)					
		other on request							
Miscellaneous									
EHEDG certificate Type EL Class I		EHEDG conformity is only ensured in combination with an approved seal. This is e.g. for - Clamp        (C62):        T-ring-seal from Combifit International B.V. - dairy pipe   (M73):        ASEPTO-STAR k-flex upgrade seal by Kieselmann GmbH							
Display		LC display, visible range 40 x 30 mm; 4.5-digit 7-segment-display, digit height 11 mm, range of indication ±19999; 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 (standard: the device is calibrated in a vertical position with the pressure connection down; 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 million load cycles							
CE-conformity		EMV Directive: 2014/30/EU							



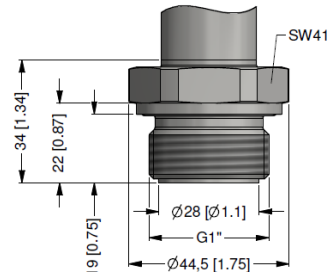
## Dimensions (mm / in)



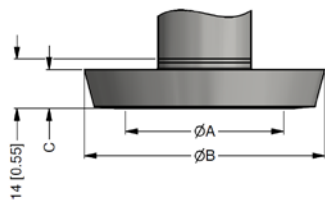
## Mechanical connections (dimensions mm / in)



G1/2" DIN 3852 flush  
p<sub>N</sub> ≥ 1 bar

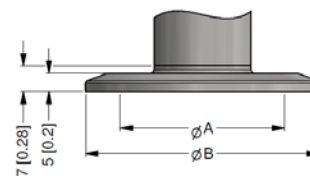


G1" DIN 3852 flush



dimensions in mm [in]	
size	DN 25
A	23 [0.91]
B	44 [1.73]
C	10 [0.39]

diaphragm pipe (DIN 11851)  
p<sub>N</sub> ≥ 0.25 bar



dimensions in mm [in]	
size	DN 1 1/2"
A	23 [0.91]
B	50.5 [1.99]

Clamp (DIN 32676)  
p<sub>N</sub> ≤ 16 bar

BAROLI 02P  
Battery Powered Digital Pressure Gauge

Ordering code BAROLI 02P

BAROLI 02P

□□□ - □□□□ - 0 - □□ - 0K0 - □□□ - □ - □ - □ - □ - □□□

Pressure												
	gauge	M	0	G								
	absolute <sup>1</sup>	M	0	H								
Input												
	[bar]											
	0.10 <sup>1</sup>		1	0	0	0						
	0.16 <sup>1</sup>		1	6	0	0						
	0.25 <sup>1</sup>		2	5	0	0						
	0.40		4	0	0	0						
	0.60		6	0	0	0						
	1.0		1	0	0	1						
	1.6		1	6	0	1						
	2.5		2	5	0	1						
	4.0		4	0	0	1						
	6.0		6	0	0	1						
	10		1	0	0	2						
	16		1	6	0	2						
	25		2	5	0	2						
	40		4	0	0	2						
	-1 ... 0		X	1	0	2						
	customer		9	9	9	9						consult
Accuracy												
	[BFSL]											
	standard for p <sub>N</sub> ≥ 0.4 bar						B	2				
	standard for p <sub>N</sub> < 0.4 bar						B	5				
	customer						9	9				consult
Mechanical connection												
	G1/2" DIN 3852 with						Z	0	0			
	flush diaphragm <sup>2</sup>											
	G1" DIN 3852 with						Z	S	1			
	flush diaphragm											
	Clamp 1 1/2" (DIN 32676) <sup>3</sup>						C	6	2			
	dairy pipe DN 25 (DIN 11851) <sup>4, 5</sup>						M	7	3			
	customer						9	9	9			consult
Seals												
	for clamp or dairy pipe:											
	without							0				
	FKM							1				
	customer							9				consult
Diaphragm												
	stainless steel 1.4435 (316L)							1				
	customer							9				consult
Front foil												
	standard								1			
	neutral								N			
	customer								9			consult
Filling fluids												
	silicone oil								1			
	food compatible oil								2			
	customer								9			consult
Special version												
	standard									0	0	0
	customer									9	9	9
												consult

<sup>1</sup> absolute pressure possible from 0.4 bar

<sup>2</sup> possible only for p<sub>N</sub> ≥ 1 bar

<sup>3</sup> possible only for p<sub>N</sub> ≤ 16 bar

<sup>4</sup> possible only for p<sub>N</sub> ≥ 0.25 bar; cup nut for dairy pipe included and pre-assembled

<sup>5</sup> The cup nut has to be mounted by production of pressure gauge. The cup nut has to be ordered as separate position.