



# 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, abs. [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 / 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 P <sub>N</sub> < 1 bar: on request						

<sup>1</sup> consider the pressure resistance of fitting and clamps

Performance	
Accuracy <sup>2</sup>	standard: 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	
Permissible temperatures <sup>3</sup>	medium: -40 ... 125 °C for filling fluid of silicone oil -10 ... 125 °C for filling fluid of food compatible oil 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

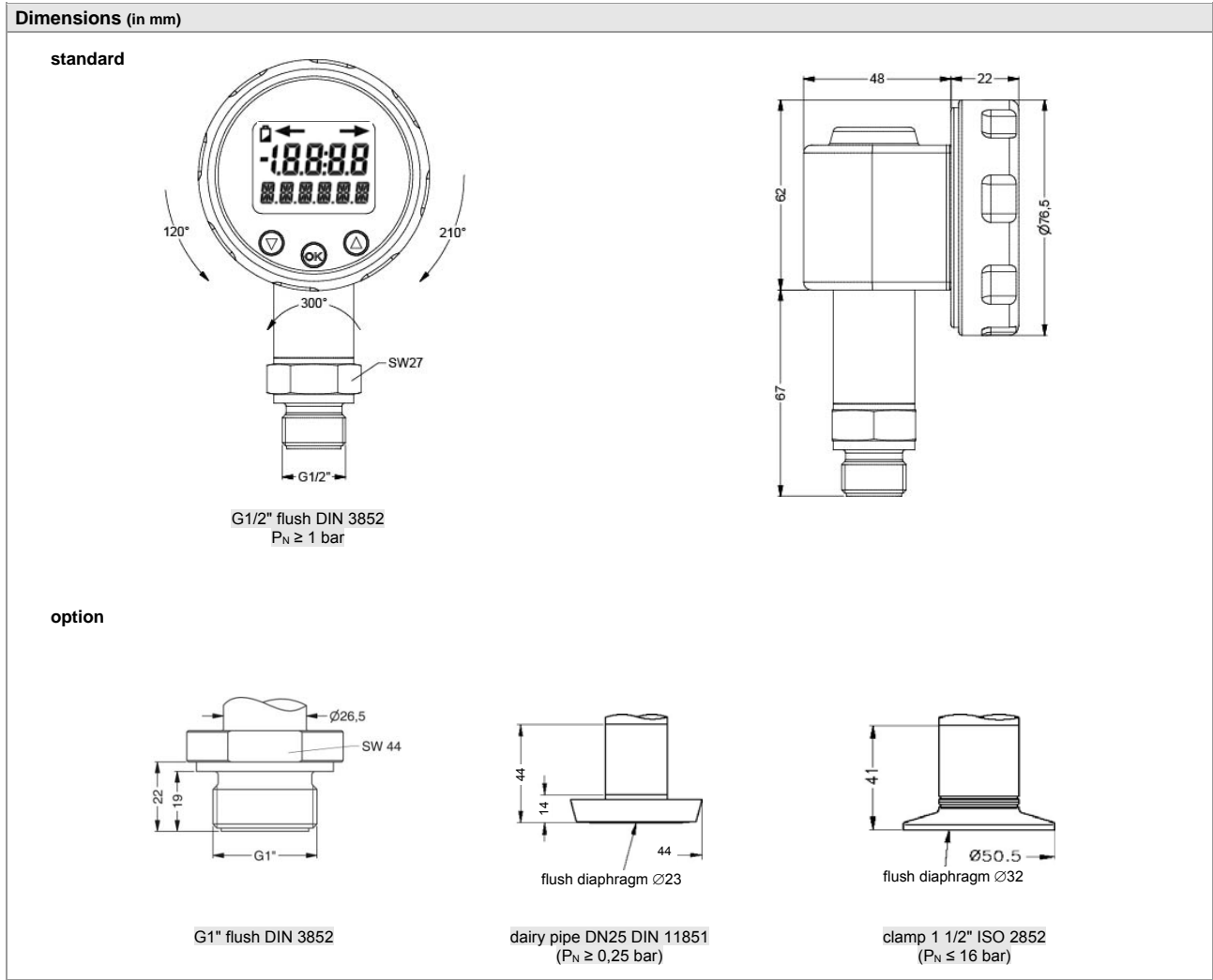
Materials / Filling fluids	
Housing	stainless steel 1.4404 (316 L)
Pressure port	stainless steel 1.4435 (316 L) other on request
Display housing	PA 6.6, polycarbonate
Seals (media wetted)	standard: FKM clamp and dairy pipe: none
Diaphragm	stainless steel 1.4435 (316 L)
Media wetted parts	pressure port, 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	
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 x 10 <sup>6</sup> pressure cycles
CE-conformity	EMV Directive: 2014/30/EU

# BAROLI 02P

Digital Pressure Gauge

Technical Data



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## Ordering code BAROLI 02P

BAROLI 02P

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

Pressure		M	0	G																
	gauge	M	0	G																
	absolute <sup>1</sup>	M	0	H																
Input																				
	[bar]																			
	0.10	1			1	0	0	0												
	0.16	1			1	6	0	0												
	0.25	1			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 flush diaphragm <sup>2</sup>								Z	0	0									
	G1" DIN 3852 with flush diaphragm								Z	3	1									
	Clamp 1 1/2" <sup>3</sup>								C	6	2									
	Dairy pipe DN 25 (DIN 11851) <sup>4</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

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