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

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Input pressure ranges [1]								
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_N ≥ 1 bar: unlimited vacuum resistance p_N < 1 bar: on request						

[1] consider the pressure resistance of fitting and clamps

Performance	
Accuracy [2]	nominal pressure ≥ 0.4 bar : ≤ ± 0.125 % BFSL nominal pressure < 0.4 bar: ≤ ± 0.25 % BFSL
Measuring rate	5/sec

[2] accuracy according to IEC 60770 – minimum value setting (non-linearity, hysteresis, repeatability)

Thermal effects (offset and span)				
Nominal pressure p_N	[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 [3]	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

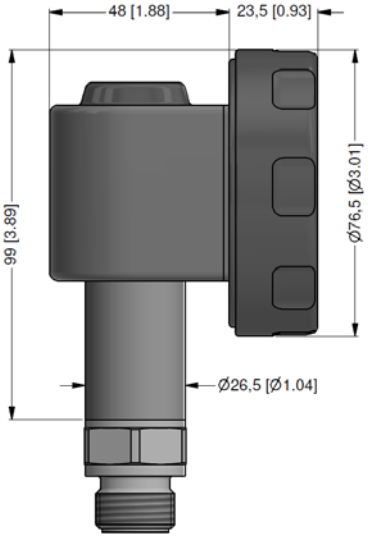
[3] max temperature of the medium for nominal pressure gauge > 0 bar: 150 °C for 60 minutes with a max. environmental temperature of 50 °C

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

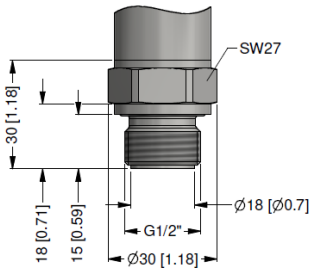
Materials / Filling fluids	
Housing	stainless steel 1.4404 (316 L)
Pressure port	inch thread: stainless steel 1.4404 (316 L) Clamp, diary pipe: stainless steel 1.4435 (316 L) other on request
Display housing	PA 6.6, polycarbonate
Seals (media wetted)	standard: FKM clamp and dairy pipe: none
Diaphragm	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_N ≤ 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

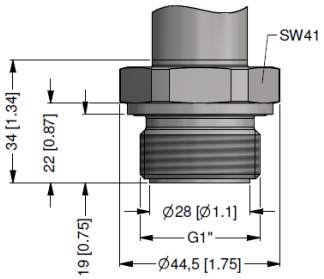
Dimensions (mm / in)



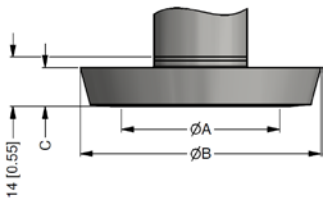
Mechanical connections (dimensions mm / in)



G1/2" DIN 3852 flush
p_N ≥ 1 bar

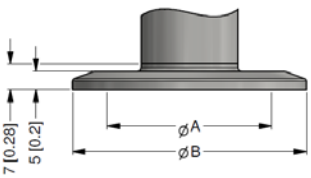


G1" DIN 3852 flush



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

diary pipe (DIN 11851)
p_N ≥ 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_N ≤ 16 bar

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BD|SENSORS pressure measurement

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pressure measurement

Ordering code BAROLI 02P

BAROLI 02P ☐☐☐ - ☐☐☐☐ - 0 - ☐☐ - 0K0 - ☐☐☐ - ☐ - ☐ - ☐ - ☐ - ☐☐☐

Section	Option		Code	
Pressure				
	gauge		M0G	
	absolute [1]		M0H	
Input	[bar]			
	0.10 [1]		1000	
	0.16 [1]		1600	
	0.25 [1]		2500	
	0.40		4000	
	0.60		6000	
	1.0		1001	
	1.6		1601	
	2.5		2501	
	4.0		4001	
	6.0		6001	
	10		1002	
	16		1602	
	25		2502	
	40		4002	
	-1 … 0		X102	
	customer		9999	consult
Accuracy	[BFSL]			
	standard for $p_N \geq 0.4$ bar	0.125 %	B2	
	standard for $p_N < 0.4$ bar	0.250 %	B5	
	customer		99	consult
Mechanical connection				
	G1/2" DIN 3852 with flush diaphragm [2]		Z00	
	G1" DIN 3852 with flush diaphragm		ZS1	
	Clamp 1 1/2" (DIN 32676) [3]		C62	
	dairy pipe DN 25 (DIN 11851) [4, 5]		M73	
	customer		999	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		000	
	customer		999	consult

[1] absolute pressure possible from 0.4 bar
[2] possible only for $p_N \geq 1$ bar
[3] possible only for $p_N \leq 16$ bar
[4] possible only for $p_N \geq 0.25$ bar; cup nut for dairy pipe included and pre-assembled
[5] The cup nut has to be mounted by production of pressure gauge. The cup nut has to be ordered as separate position.

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