



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

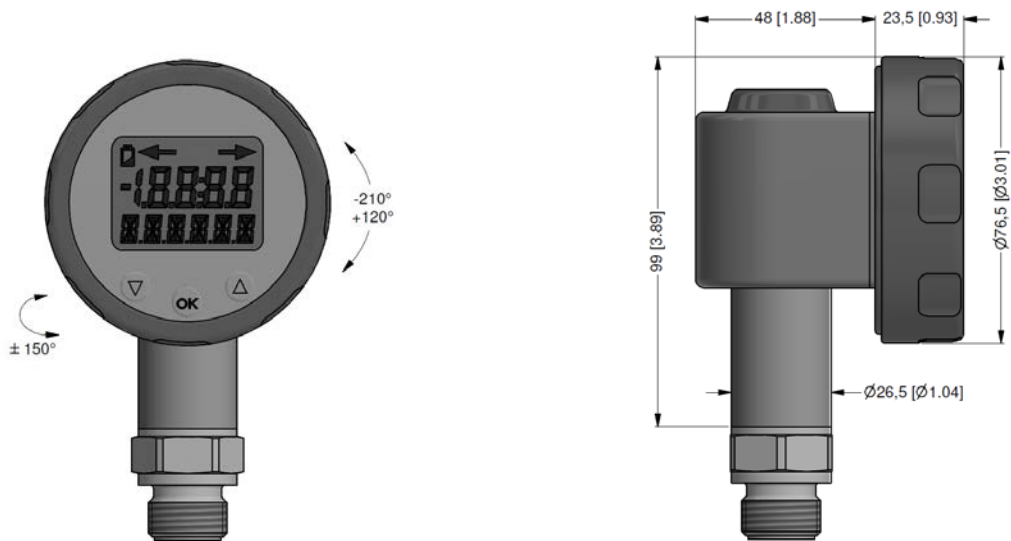


Pharmacy

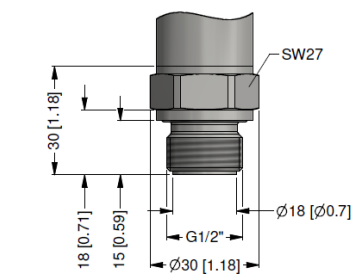


Input pressure ranges ¹									
Nominal pressure gauge	[bar]	-1 ... 0	0.10	0.16	0.25	0.40	0.60	1	1.6
Nominal pressure absolute	[bar]	-	-	-	-	0.40	0.60	1	1.6
Overpressure	[bar]	5	0.5	1	1	2	5	5	10
Burst pressure ≥	[bar]	7.5	1.5	1.5	1.5	3	7.5	7.5	15
Nominal pressure gauge / absolute	[bar]	2.5	4	6	10	16	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 61298-2 – 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 / 10 ... 2000 Hz			according to IEC 60068-2-6				
Shock		500 g / 1 msec half sine			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 _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							

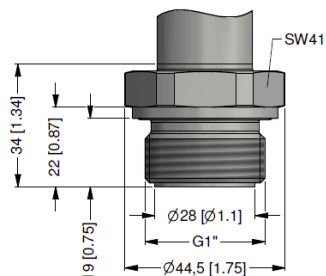
Dimensions (mm / in)



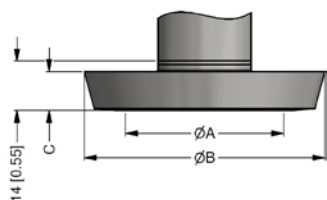
Mechanical connections (dimensions mm / in)



G1/2" DIN 3852 flush
 $p_N \geq 1 \text{ bar}$

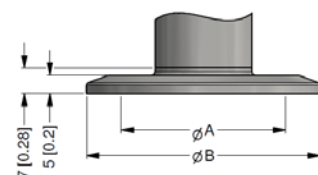


G1" DIN 3852 flush



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

diaphragm pipe (DIN 11851)
 $p_N \geq 0.25 \text{ bar}$



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

Clamp (DIN 32676)
 $p_N \leq 16 \text{ bar}$

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Ordering code BAROLI 02P

BAROLI 02P

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Pressure																					
	gauge	M	0	G																	
	absolute ¹	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 _N ≥ 0.4 bar	0.125 %						B	2													
standard for p _N < 0.4 bar	0.250 %						B	5													
	customer						9	9													consult
Mechanical connection																					
G1/2" DIN 3852 with flush diaphragm ²							Z	0	0												
G1" DIN 3852 with flush diaphragm							Z	S	1												
Clamp 1 1/2" (DIN 32676) ³							C	6	2												
dairy pipe DN 25 (DIN 11851) ^{4,5}							M	7	3												
	customer						9	9	9												consult
Seal																					
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 fluid																					
	silicone oil										1										
	food compatible oil										2										
	customer										9										consult
Special version																					
	standard																0	0	0		
	customer																9	9	9		consult

¹ absolute pressure possible from 0.4 bar² possible only for $p_N \geq 1$ bar³ 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.