

## CCM-P-02P



- battery powered digital pressure gauge
- hygienic process connections
- nominal pressure: from 0...100mbar up to 0...40bar
- stainless steel diaphragm flush welded
- accuracy 0.25 % / 0.5 % span
- rotatable housing Ø 76,5 mm
- 2-line LC display: 4.5-digit 7-segment + 6-digit 14-segment additional
- min / max function with reset, offset and end point calibration
- setting the pressure unit
- configuration of switch-off automatic

The battery-powered digital pressure gauge **CCM-P-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 CCM-P-02P display housing is rotatable, thus ensuring an easy reading even under unfavorable 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

### TECHNICAL DATA

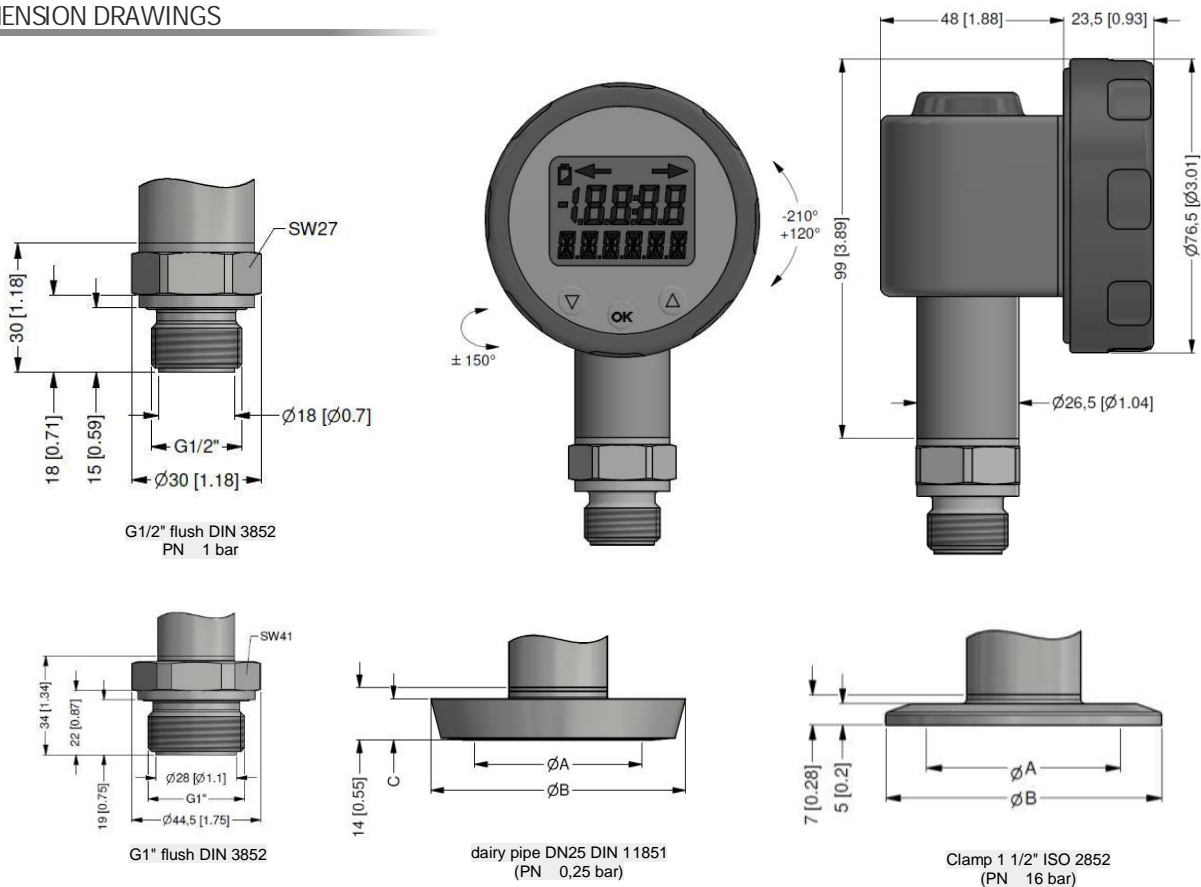
Input pressure ranges <sup>1</sup>									
Nominal pressure gauge [bar]	-1 ... 0	0.10	0.16	0.25	0.40	0.60	1	1.6	
Nominal pressure, abs. [bar]	-	-	-	-	0.40	0.60	1	1.6	
Overpressure [bar]	5	0.5	1	1	2	5	5	10	
Burst pressure [bar]	7.5	1.5	1.5	1.5	3	7.5	7.5	15	
Nominal pressure gauge / abs. [bar]	2,5	4	6	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 : ± 0.25 % nominal pressure < 0.4 bar: ± 0.5 %
Measuring rate	5/sec
<sup>2</sup> accuracy according to EN IEC 6228-2 – 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 [% span]	± 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 silicon 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
Pressure port	stainless steel 1.4404 <span style="float: right;">other on request</span>
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 (Mobil SHC Cibus 32; class code: H1; NFS registration Nr.: 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 $\pm 19999$ ; 6-digit 14-segment additional display, digit height 7.5 mm
EHDG certificate Type EL Class I	EHDG 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
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 pressure cycles
CE-conformity	EMV Directive: 2014/30/EU

DIMENSION DRAWINGS



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

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



ORDER CODE

CCM-P-02P- [ ] [ ] [ ] - [ ] [ ] [ ] - [0] [ ] - [ ] [ ] [0] [ ] - [ ] [ ] [ ] - [ ] [ ] - [N] [ ] - [ ] [ ] [ ]

<b>Pressure</b>									
Gauge	M	0	G						
Absolute (possible from 0,4 bar)	M	0	H						
<b>Input [bar]</b>									
0 ... 0,1				1	0	0	0		
0 ... 0,16				1	6	0	0		
0 ... 0,25				2	5	0	0		
0 ... 0,4				4	0	0	0		
0 ... 0,6				6	0	0	0		
0 ... 1				1	0	0	1		
0 ... 1,6				1	6	0	1		
0 ... 2,5				2	5	0	1		
0 ... 4				4	0	0	1		
0 ... 6				6	0	0	1		
0 ... 10				1	0	0	2		
0 ... 16				1	6	0	2		
0 ... 25				2	5	0	2		
0 ... 40				4	0	0	2		
-1 ... 0				X	1	0	2		
Customer				9	9	9	9		
<b>Accuracy</b>									
0,25 % (for P <sub>N</sub> > 0,4 bar)								2	
0,5 % (for P <sub>N</sub> ≤ 0,4 bar)								5	
Customer								9	
<b>Mechanical connection</b>									
G 1/2" DIN with flush diaphragm (only for P <sub>N</sub> ≤ 1 bar)								Z	0 0
G 1" DIN 3852 with flush diaphragm								Z	3 1
Clamp 1 1/2"								C	6 2
Dairy pipe DN 25 (DIN 11851)(only for P <sub>N</sub> ≤ 1 bar)								M	7 3
Customer								9	9 9
<b>Seals</b>									
Without								0	
FKM								1	
Customer								9	
<b>Diaphragm</b>									
Stainless steel 1.4435 (316 L)								1	
Customer								9	
<b>Filling fluids</b>									
Silicone oil								1	
Food compatible oil								2	
Customer								9	
<b>Special version</b>									
Standard									0 0 0
Customer									9 9 9
<b>Accessories</b>									
Battery (2 pcs needed)									1000377

Manufacturer reserves the right to change sensor specifications without further notice.

