

# Diaphragm Seal

990.22 clamp connection

and precision digital pressure gauge CPG1500

E 06.05.08

Ed.17.01

<b>Design</b>	Diaphragm Seal for hygienic and sterile industry with clamp connection SMS, ASME or DIN Precision digital pressure gauge CPG1500
<b>Type</b>	<b>990.22</b>
<b>Pressure rate</b>	PN 40 for pressure range from 0-1 bar to 0-40 bar
<b>Material standard</b>	Upper part of stainless steel 1.4404 (316L) Lower part and connection stainless steel 1.4435 (316L) Diaphragm of stainless steel 1.4435 (316L) Option: Electropolished with surface roughness $R_a \leq 0,38 \mu\text{m}$
<b>Level of cleanliness</b>	Oil and grease free per ASTM G93-03 level E ( $< 550 \text{ mg/m}^2$ )
<b>Clamp SMS</b>	Clamp connection from DN 1" to DN 3" Pipe standard per BS4825 Part 3 DN 1 1/2" (TC 50,5) for pipe dim 38,1x1,6 DN 2" (TC 64) for pipe dim 50,8x1,6
<b>Clamp ASME</b>	Clamp connection DIN 32676 from DN 1" to DN 3" Pipe standard per ASME BPE or DIN 11866 row C DN 1 1/2" for pipe dim 38,1x1,65 DN 2" for pipe dim 50,8x1,65
<b>Clamp DIN</b>	Clamp connection DIN 32676 from DN 26,9 to DN 76,1 Pipe standard per DIN 11866 row B or ISO 1127 row 1 DN 33,7 for pipe dim 33,7x2 DN 42,4 for pipe dim 42,4x2
<b>Surface roughness</b>	$R_a \leq 0,76 \mu\text{m}$ per ASME BPE SF3 or $R_a \leq 0,38 \mu\text{m}$ per ASME BPE SF3 (electropolished)
<b>Process temperature</b>	Max +80°C, in sterilisation (SIP) max +130°C
<b>Ambient temperature</b>	Ambient temperature standard +10+40°C Option lowest temperature to max -40°C Option highest temperature to max +60°C
<b>Working Pressure</b>	90% of full scale range by fluctuating pressure full scale value by short time pressure
<b>Filling media</b>	KN 59 Neobee M-20 (FDA 21 CFR 172.856) KN 92 white minerale oil (FDA 21 CFR 172.878) KN 7 glycerine (FDA 21 CFR 182.1320)
<b>Certificate (option)</b>	EN 10204-2.2 FDA-approval filling media EN 10204-2.2 Surface roughness of wetted parts EN 10204-2.2 Test report State-of-the-art EN 10204-3.1 Certificate wetted parts incl. chemical analysis EN 10204-3.1 Certification of class and accuracy EN 10204-3.1 Accuracy calibration values listed EN 10204-3.1 Pressure and stability test EN 10204-3.1 Helium leak test
<b>More options</b>	Material syrafast stainless steel 1.4539 Material Hastelloy C276 (2.819) Material Hastelloy C22 (2.4602) Origen of wetted parts from EU, Schweiz or USA



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## Precision digital pressure gauge CPG1500

<b>Design</b>	Precision digital pressure gauge CPG1500 with display and power supply with battery
<b>Type</b>	CPG1500
<b>Accuracy</b>	0,1% including non-linearity, hysteresis, zero offset and end value deviation
<b>Wetted parts</b>	Wetted parts in stainless steel (316L)
<b>Case</b>	Aluminium die-casting, nickel-plated Case dimension 100 mm IP 65 The case is rotatable by 330°.
<b>Display</b>	5 1/2-digit 7-segment display and Bar-graf 0+100% Selectable backlighting
<b>Resolution</b>	4-5 ½ digit; adjustable; dependent on pressure unit
<b>Power supply</b>	3 x 1.5 V AA alkaline batteries Typical 2,000 ... 2,500 h (without backlighting)
<b>Pressure units</b>	Bar, psi, mbar, kPa, MPa, mmHg and many more special pressure units
<b>Measuring rate</b>	max. 50/s
<b>Menu languages</b>	Standard: English Selectable: German, Italian, French, Spanish, Russian
<b>Memory</b>	Standard: Min./Max (Optional: integrated data logger)
<b>Menu functions</b>	Min./Max. alarm (visual), power-off function, measuring rate, mean value filter, pressure rate, mean value (via adjustable interval), level indicator, Tare offset, display damping
<b>Mean value interval</b>	1 ... 300 seconds, adjustable
<b>Data logger (option)</b>	Cyclic logger: Automatic recording of up to 1,000,000 values; Cycle time: selectable from 1 ... 3,600 s. in steps of 1 second or by measuring rate in the following steps: 1/s, 3/s, 10/s and 50/s
<b>Interface</b>	WIKA-Wireless communication Frequency range 2,400 ... 2,500 MHz HF output power max. 2 dBm (+ 2 dBi) Number of channels 40 Channel spacing 1 or 2 MHz Bandwidth 1 or 2 MHz Output power 4 dBm / 10 mW Max output power under fault conditions for Ex ia: 490 mW
<b>Ex-design (option)</b>	Ex ATEX II 2G Ex ia IIC T4 Ga/Gb
<b>Pressure range</b>	0-1 bar, 0-1,6 bar, 0-2,5 bar, 0-4 bar, 0-6 bar 0-10 bar, 0-16 bar, 0-25 bar or 0-40 bar -1/0 bar, -1/+1,5 bar, -1/+3 bar, -1/+5 bar, -1/+9 bar

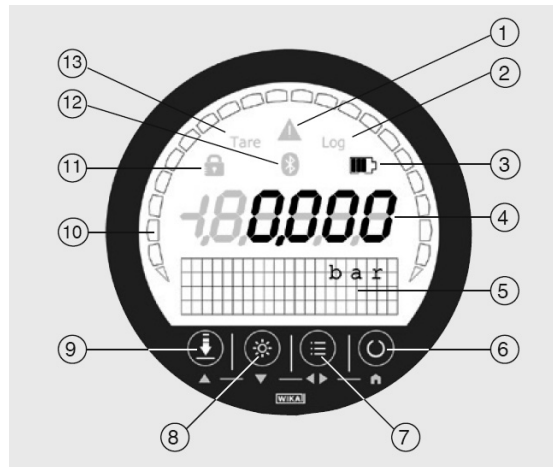
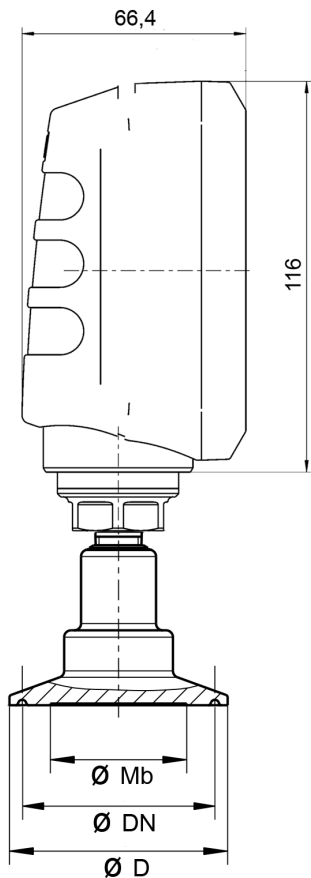


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- 1) Warning notice
- 2) Logger function active/inactive
- 3) Battery status
- 4) Display for pressure indication
- 5) Secondary display
- 6) On/Off
- 7) Menu button
- 8) Backlighting on/off
- 9) ZERO button
- 10) Bargraf 0-100%
- 11) Lock-symbol - Menu buttons are locked
- 12) WIKA-Wireless active/inactive
- 13) TARA-function

**Diaphragm Seal 990.22 with clamp**  
for pipe standard BS4825 part 3 or O.D.-Tube

DN	D	Mb	Pipe	PN
DN 1"	50,5	22	25,4 x 1,6	40
DN 1 1/2"	50,5	32	38,1 x 1,6	40
DN 2"	64	40	50,8 x 1,6	40
DN 2 1/2"	77,5	52	63,5 x 1,6	40
DN 3"	91	59	76,2 x 1,6	25

**Diaphragm Seal 990.22 with clamp DIN 32676**  
for pipe standard DIN 11866 row C or ASME BPE

DN	D	Mb	Pipe	PN
DN 1"	50,5	22	25,4 x 1,65	40
DN 1 1/2"	50,5	32	38,1 x 1,65	40
DN 2"	64	40	50,8 x 1,65	40
DN 2 1/2"	77,5	52	63,5 x 1,65	40
DN 3"	91	59	76,2 x 1,65	25

**Diaphragm Seal 990.22 with clamp DIN 32676**  
for pipe standard DIN 11866 row C or ISO 1127

DN	D	Mb	Pipe	PN
DN 26,9	50,5	22	26,9 x 1,6	40
DN 33,7	50,5	25	33,7 x 2	40
DN 42,4	64	32	42,4 x 2	40
DN 48,3	64	40	48,3 x 2	40
DN 60,3	77,5	52	60,3 x 2	40
DN 76,1	91	59	76,1 x 2	25

DN = diameter of lower part  
PN = max pressure rate  
Mb = diameter of diaphragm