

Diaphragm Pressure Gauge

With horizontal diaphragm, FDA-compliant measuring unit, for the sterile process technology

PCh
100 – 3 DG

Information on advantages, application ranges, temperature resistance, metrological features and pressure ranges of all available diaphragm pressure gauges with horizontal diaphragm can be found in our model overview 3000.

Application

The PCh 100–3 DG is suitable for the sterile process technology, which is especially applied in food and pharmaceutical industries. All the wetted parts of this diaphragm pressure gauge are made of stainless steel 316L (1.4435) and are completely welded.

Since there is no filling liquid, this pressure gauge is equipped with an absolutely dry measuring unit. In the event of damage, the contamination of the medium due to transfer liquid from the measuring system can thus be excluded.

The PCh 100–3 DG is suitable for CIP and SIP and certified according to EHEDG¹⁾.



Standard Versions

Accuracy (DIN EN 837-3)
Class 1.6

Case
Bayonet ring case made of stainless steel 304 (1.4301) (ventilated)

Degree of Protection (DIN EN 60 529/IEC 529)
IP54

Nominal Case Size
100 mm (4")

Wetted Parts
Stainless steel 316L (1.4435)

Pressure Ranges (DIN EN 837-3)

Compound (bar)	-1 / +3	-1 / +5	-1 / +9
Pressure (bar)	0 – 4	0 – 6	0 – 10

Overpressure
1.3 times full scale value

Process Connection
E.g. Clamp ISO 2852 DN 38, other connections see page 2

Measuring Cell
Dry measuring cell DG (Dry Genic)

Window
Laminated safety glass

Movement
Stainless steel

Dial
Aluminum white, scale black

Pointer
Adjustable pointer with aluminum mechanism



Surface Roughness of the Wetted Parts
Ra < 0.8 µm

Temperature Resistance
Medium temperature: -20 °C to +150 °C (-4 °F to +302 °F)

Special Versions and Options

- 5 times overload resistant due to diaphragm made of Inconel (limited approvals)
- Pressure range enhanced to compound -1 / +15 bar and pressure 0 – 16 bar due to diaphragm made of Inconel
- 3-A approval upon request
- Other pressure ranges and units (e.g. psi) upon request
- Other temperature ranges upon request
- Wetted parts made of Inconel/PTFE upon request
- NCS 160 upon request
- Safety case model PSCh upon request
- Other process connections, see data sheets 7300 and 7301 upon request
- Autoclavable version

Ordering Information

Please specify in your order:

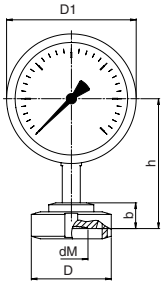
Basic model	PCh
Nominal case size	100 mm
Wetted parts	- 3
Dry measuring cell (Dry Genic)	DG
Pressure range	according to DIN EN 837-3 e.g. 0 – 10 bar
Process connection	e.g. Clamp ISO 2852 DN 38
Example:	PCh 100 – 3 DG 0 – 10 bar Clamp ISO 2852 DN 38

¹⁾ For clamp connections and process connections according to DIN 11 851, an EHEDG approval for the sealing is required.

Process Connection Dry Genic (PADG) and Dimensional Data (in mm)

Conical coupling with groove nut

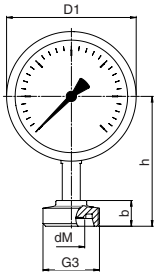
PADG 7310v... DIN 11 851 conical coupling and groove nut



DN	PN	for outer tube Ø x wall thickness	inner tube Ø	b	D	D1	dM	h
40	40	41 x 1.5	38	20	78	101	36	95
50	25	53 x 1.5	50		92			

Thread connection piece

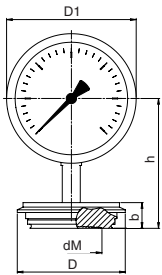
PADG 7315v... DIN 11 851 thread connection piece



DN	PN	for outer tube Ø x wall thickness	inner tube Ø	b	G3	D1	dM	h
40	40	41 x 1.5	38	20	Rd 65 x 1/6	101	36	95
50	25	53 x 1.5	50		Rd 78 x 1/6			

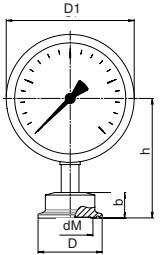
With clamp connection

PADG 7313v... Varivent® clamp connection Varivent® for Varinline® case



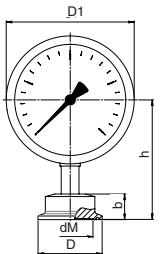
type	PN	process orifice	tubes acc. to DIN 11866 ¹⁾ series			b	D	D1	dM	h
			A	B	C					
F	25	50	25	25	1"	19	66	101	36	94
N		68	40...125	32...100	1 1/2...4"		84			

PADG 7340v... ISO 2852 for tubes according to ISO 2037 and BS 4825



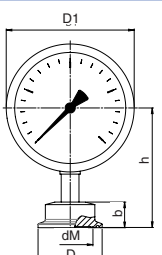
DN	PN	for outer tube Ø x wall thickness	inner tube Ø	b	D	D1	dM	h
38.0	16	38 x 1.2	35.6	20	50.5	101	36	95
51.0		51 x 1.2	48.6		64.0			
63.5		63.5 x 1.6	60.3		77.5			
76.1		76.1 x 1.6	72.9		91.0			

PADG 7340.1v...DIN 32 676, Series A for tubes according to DIN 11 850



DN	PN	for outer tube Ø x wall thickness	inner tube Ø	b	D	D1	dM	h
40	16	41 x 1.5	38	20	50.5	101	36	95
50		53 x 1.5	50		64.0			
65		70 x 2.0	66		91.0			

PADG 7340.6v... Tri-Clamp for tubes according to BS 4825 and O.D. tube; ASME BPE and ISO 1127



NPS	DN	PN	for outer tube Ø x wall thickness		for inner tube Ø		b	D	D1	dM	h
			BS 4825 and O.D.-Tube/ ASME BPE	ISO 1127	BS 4825 and O.D.-Tube/ ASME BPE	ISO 1127					
1 1/2"	38.0	16	38.1 x 1.6	42.4 x 2	34.8	38.4	20	50.5	101	36	95
2"	51.0		50.8 x 1.6	48.3 x 2	47.5	44.3		64.0			
2 1/2"	63.5		63.5 x 1.6	60.3 x 2	60.3	56.3		77.5			
3"	76.1		76.2 x 1.6	76.1 x 2	73.0	72.1		91.0			

¹⁾ other tube series upon request