

Diaphragm Pressure Gauges

Diaphragm with dry, FDA-compliant measuring unit made of 316 L, welded, with flush-mounted membrane

PCh 100 – 3 DG

Standard Version

Information on advantages, application, metrological features, temperature resistance and pressure ranges of all available diaphragm pressure gauge models cl. 1.6 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 1.4435 (316 L) and are completely welded.

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

The PCh 100 – 3 DG is suitable for CIP and SIP and certified according to EHEDG.¹⁾



Nominal Case Size

100 mm (4")

Accuracy (DIN EN 837-3)

Class 1.6

Pressure Ranges (DIN EN 837-3)

Compound (bar)	-1 / +3	-1 / +5	-1 / +9	-1 / +15
Pressure (bar)	0 – 4	0 – 6	0 – 10	0 – 16

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

IP 54

Connection

e.g. Clamp ISO 2852 DN 38
other connections see page 2

Movement

Stainless steel

Dial

Aluminum, white background, black figures

Pointer

Adjustable pointer, mechanism aluminum

Case

Bayonet ring case stainless steel 1.4301 (ventilated)

Window

Laminated safety glass

Measuring Cell

Dry measuring cell DG (Dry Genic)

Wetted Parts:

1.4435 / 316 L

Surface Roughness of the Wetted Parts

$R_a < 0.8 \mu\text{m}$

Permissible Temperature

Ambience: $-20 \text{ }^\circ\text{C}$ to $+60 \text{ }^\circ\text{C}$ ($-4 \text{ }^\circ\text{F}$ to $+140 \text{ }^\circ\text{F}$)

Medium: $-20 \text{ }^\circ\text{C}$ to $+150 \text{ }^\circ\text{C}$ ($-4 \text{ }^\circ\text{F}$ to $+302 \text{ }^\circ\text{F}$)



Special Versions (Upon Request)

- 3-A approval
- Other pressure ranges
- Other temperature ranges
- Wetted parts made of Inconel/PTFE
- Other pressure gauges: models PCh 160 – 3 or PSCh 160 – 3
- Overrange protection
- Other process connections, see data sheets 7300 and 7301

Ordering Information

Please specify in your order:

Basic model:	PCh
Nominal case size:	100
Ordering code for the material of the wetted parts:	- 3
Dry measuring cell (Dry Genic):	DG
Pressure range:	according to DIN EN 837-3 e.g. 0 – 10 bar
Connection:	e.g. Clamp ISO 2852 DN 38

Example for Ordering Information:

- 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 seals is required.



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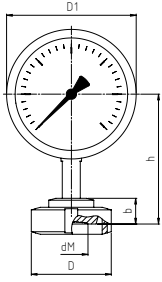
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Process Connection Dry Genic (PADG) and Dimensional Data (in mm)

Conical Coupling with Groove Nut

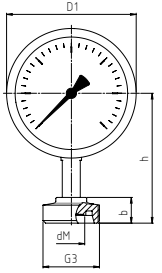
PADG 7310v... DIN 11 851 conical coupling and groove nut



DN	PN	for tube male-Ø x wall thickness	tube female-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

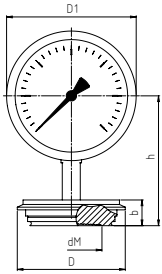
PADG 7315v... DIN 11 851 thread connection piece



DN	PN	for tube male-Ø x wall thickness	tube female-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			

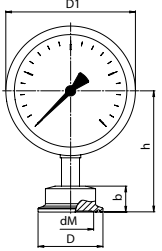
with Clamp Connection

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



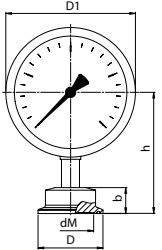
type	PN	process orifice	tubes according to DIN 11 866** series			b	D	D1	dM	h
			A	B	C					
F	25	50	25	25	1"	19	66	101	36	94
N		68	40...125	32...100	1½...4"		84			

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



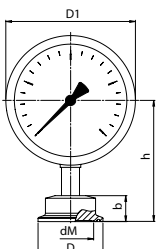
DN	PN	for tube male-Ø x wall thickness	tube female-Ø	b	D	D1	dM	h
38	16	38 x 1.2	35.6	20	50.5	101	36	95
51		51 x 1.2	48.6		64			
63.5		63.5 x 1.6	60.3		77.5			
76.1		76.1 x 1.6	72.9		91			

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



DN	PN	for tube male-Ø x wall thickness	tube female-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			
65		70 x 2	66		91			

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



NPS	DN	PN	for tube male-Ø x wall thickness		for tube female-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					
1½"	38	16	38.1 x 1.6	42.4 x 2	34.8	38.4	20	50.5	101	36	95
2"	51		50.8 x 1.6	48.3 x 2	47.5	44.3		64			
2½"	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			