Absolute Pressure Gauges

With horizontal diaphragm, stainless steel case with bayonet ring

APCh
APSChG

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

Absolute pressure gauges are suitable for the measurement of liquids and gases. With open flange, they are also suitable for the measurement of viscous, solid-containing media.

The instrument is equipped with a vacuum chamber, which is closed off at the process side with a membrane and thus allows absolute pressure measurements. Generally, a diaphragm made of Duratherm or Inconel serves as membrane, which stands out due to its low hysteresis and long durability.

Standard Versions

Accuracy (DIN EN 837-3)
Class 1.6

Case

APCh	Bayonet ring case made of stainless steel 304 (1.4301), DIN EN 837-1 S1
APSChG	Safety case made of stainless steel 304 (1.4301), DIN EN 837-1 S3

Case Filling

Model APSCh**G**	glycerin

Degree of Protection (DIN EN 60529 / IEC 60529)

APCh	IP65
APSChG	IP66

Nominal Case Size
100, 160 mm (4, 6")

Wetted Parts

Ordering code	Lower measuring flange	Sealing	Diaphragm
– 3	stainless steel 316Ti (1.4571)	NBR	stainless steel 316L (1.4404), Duratherm (not for NACE conformity) or Inconel

Pressure Ranges (DIN EN 837-3)
0 – 60 mbar abs. to 0 – 2500 mbar abs.
Pressure ranges according to table on page 2

Upper Measuring Flange (Stainless Steel 1.4301)
Pressure ranges ≤ 250 mbar = measuring flange Ø 160 mm
Pressure ranges ≥ 400 mbar = measuring flange Ø 100 mm

Overrange Protection

Measuring flange Ø 160 mm	up to 5 bar
Measuring flange Ø 100 mm	up to 10 bar

(see table page 2)

Process Connection
G ½ B bottom connection according to DIN EN 837-3

Window
Laminated safety glass

Movement
Stainless steel

Dial
Aluminum white, scale black

Pointer
Aluminum black, micro adjustment device for zero adjustment

Safety Features

APCh	pressure relief vent in the back of the case
APSChG	break-proof solid front, blow-out back, pressure equalising membrane

Special Versions Upon Request

- Other process connections
- Small flanges according to DIN 28403 from DN 10 to DN 50
- Pressure ranges below 0 – 60 mbar abs.
- Special installation positions
- Other materials for diaphragm, lower flange
- Additional electrical accessories

Ordering Information

Please specify in your order:

Basic model	APCh (unfilled) or APSChG (filled)
Nominal case size	100 or 160 mm
Wetted parts	– 3
Pressure range	according to DIN EN 837-3, e.g. 0 – 60 mbar abs. or 0 – 400 mbar abs.
Process connection	G ½ B
Specifics	see above

Example APCh 100 – 3, 0 – 60 mbar abs., G ½ B
APSChG 160 – 3, 0 – 400 mbar abs., ½" NPT

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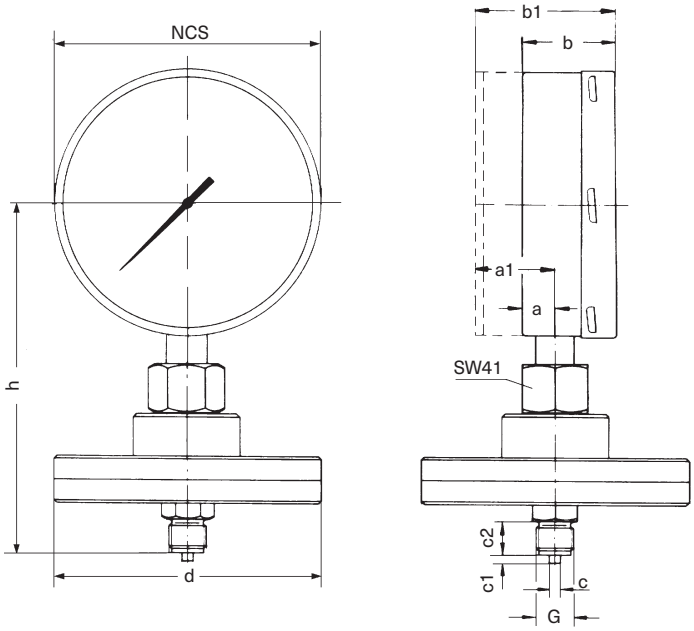
Case Configuration, Standard Pressure Ranges, Dimensional Data and Weight

Bottom Process Connection

without code letters



Standard Pressure Ranges

pressure range absolute (mbar)	overrange protected up to (bar)
0 – 60	5
0 – 100	
0 – 160	
0 – 250	
0 – 400	10
0 – 600	
0 – 1000	
0 – 1600	
0 – 2500	

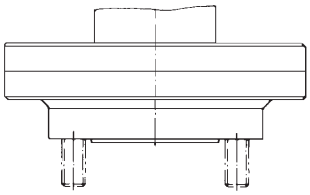
Dimensional Data (mm / inch) and Weight (kg / lb)

case NCS	measuring flange Ø d	a	a1	b	b1	c	c1	c2	G	h	approx. weight[1] APCh	approx. weight[1] APSChG
100 **4**	100 **4**	21 **0.83**	37 **1.46**	59 **2.32**	72 **2.83**	6 **0.24**	3 **0.12**	20 **0.79**	G½B **½" BSP**	176 **6.93**	2.20 **4.85**	2.50 **5.51**
	160 **6**										3.80 **8.378**	4.10 **9.04**
160 **6**	100 **4**		47 **1.85**		82 **3.23**					208 **8.19**	2.60 **5.73**	3.30 **7.28**
	160 **6**										4.20 **9.26**	4.98 **10.98**

Open Flange

according to DIN EN or ASME

DN 25, DN 50



Open flanges DN 50 are supplied with through holes for measuring flange Ø 100 mm. All other versions are produced with block flange (as shown in the drawing). The connection threads are provided according to the recommendations of the respective DIN EN or ASME tables. Studs with washers and nuts are supplied upon request.

[1] The weights of the devices deviate considerably for different pressure ranges and materials, therefore only vague values can be given.