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
Bayonet ring case made of stainless steel 304 (1.4301), raw
APSChG: Safety case similar to S3, DIN EN 837-1

Case Filling
For model APSCh**G**: glycerin

Degree of Protection (DIN EN 60 529/IEC 529)
APCh IP54
APSChG IP65

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

Wetted Parts

Ordering code	Lower measuring flange	Sealing	Diaphragm
– 3	stainless steel 316L	FPM	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 ½B bottom connection

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 and Options

- Other process connections upon request
- Small flanges according to DIN 28 403 from DN 10 to DN 50 upon request
- Pressure ranges below 0–60 mbar abs. upon request
- Special installation positions upon request
- Other materials for diaphragm, lower flange upon request
- Additional electrical accessories upon request

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 ½B
Specifics	see above

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

ARMANO Messtechnik GmbH

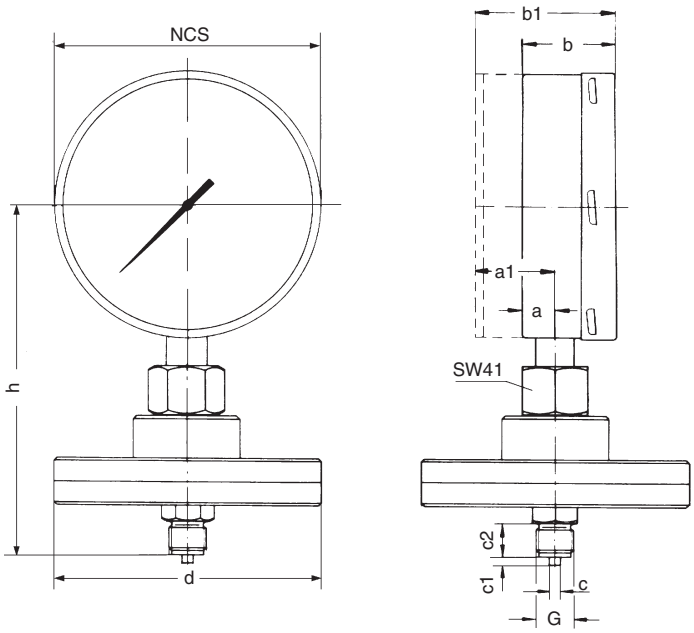
Location Beierfeld
Am Gewerbepark 9 • 08344 Grünhain-Beierfeld
Tel.: +49 3774 58 – 0 • Fax: +49 3774 58 – 545
mail@armano-beierfeld.com

Location Wesel
Manometerstraße 5 • 46487 Wesel-Ginderich
Tel.: +49 2803 9130 – 0 • Fax: +49 2803 1035
mail@armano-wesel.com

Case Configuration, Standard Pressure Ranges, Dimensional Data and Weight

Bottom Process Connection

(no additional 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	

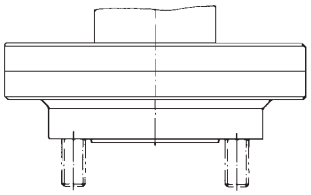
Dimensional Data (mm/**inch**) and Weights (kg/**lb**)

case NCS	measuring flange Ø d	a	a1	b	b1	c	c1	c2	G	h	(approx.) weight[1] APCh	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**	178 **7.01**	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.