

Absolute Pressure Gauges

with Diaphragm Measuring Unit, Stainless Steel Case with Bayonet Ring
without (APCh) or with Case Filling (APSchG)

Cl. 1,6
NCS 100
160

Models

APCh APSchG

Application

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

The instrument is provided with a vacuum chamber, that is sealed off with a membrane at the process side and therefore allows absolute pressure measurements. A diaphragm made of duratherm, that features low hysteresis and a long durability, functions as membrane.

Nominal Case Sizes

100 mm (4") and 160 mm (6")

Accuracy (EN 837-3)

Class 1.6

Pressure Ranges (EN 837-3)

Pressure ranges according to table page 2
0-60 mbar abs. to 0-2,500 mbar abs.

Maximum Load Limit (EN 837-3)

at steady load: scale value
at dynamic load: 90% of the scale value
Overpressure protection: measuring flange-Ø 160 mm (6"): up to 5 bar
measuring flange-Ø 100 mm (4"): up to 10 bar

Temperature Limitation

Operating Temperature: -20/+60 °C (-4°F...+140°F)
Storing Temperature: -40/+70 °C (-40°F...+158°F)
(Please regard min./max.values of liquids at case filling!)

Temperature caused Error

The additional fault per 10° C (+50°F) divergence of the reference temperature +20°C (+68°F) (referred to the elastic element) can total up to 0.6 % in accordance to EN 837-3.

Protection Type (EN 60 529 / IEC 529)

Model APCh = IP 54 / Model APSchG = IP 65

Standard Version

Connection

Bottom connection, G ½ B (½"BSP)

Movement

Stainless steel

Dial

Black figures, white background

Pointer

Aluminum black, micro-adjustment device for zero adjustment

Case

APCh: Bayonet ring case made of 1.4301
(304 stainless steel)

APSchG: Bayonet ring case made of 1.4301
(304 stainless steel),
Safety case similar to S3, EN 837-1,
case filling glycerine

Window

Laminated safety glass



Safety Features

APCh: Pressure relief vent in the back of the case
APSchG: break-proof solid front, blow-out back,
pressure equalizing membrane

Measuring Flange

Pressure Ranges ≤ 250 mbar = Ø 160 mm (6.3"),
Pressure Ranges ≥ 400 mbar = Ø 100 mm (3.94"),
upper measuring flange 1.4301 (304 stainless steel)

Wetted Parts

Diaphragm: Duratherm
lower measuring flange: 1.4571 (316 stainless steel)
Sealing: FPM (Perbunan)

Special Versions among others

- Connection thread ½" NPT, others upon request
- Connection open flange according to DIN EN, DN 25 or DN 50, raised face DIN EN 1092-1 B1, others upon request, see reverse side
- special position of the connection resp. position of installation, e.g. 90° to the right
- Safety case with break-proof solid front behind the dial and blow-out back (similar to EN 837-1, S3), model code **APSch** for unfilled version
- Window Makrolon (just for unfilled model APCh)
- Special scales like double scale, high precision graduations (with knife edge pointer) and others
- **electrical additional devices** upon request
- Other case filling upon request

Ordering Information (model construction):

Please state the following information in your order:

Model: **APCh** = unfilled, **APSchG** = filled
Nominal case sizes: **100** oder **160 (4" or 6")**
Code letter
Wetted material: **- 3**
Pressure range: according to EN 837-3 (see table p.2),
e.g. **0-60 mbar abs.** or
0-2,500 mbar abs.
Connection: **G ½ B (½"BSP)**(=standard),
½" NPT, others see special versions
Specials: (see above)
Examples:

- APCh 100-3, 0-60 mbar abs.
G ½ B (½"BSP)
- APSchG 160 -3, 0-400 mbar abs.
½" NPT



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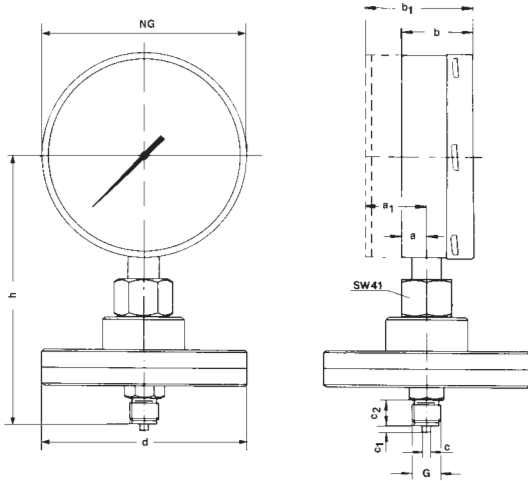


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Case Configuration, Dimensional Data and Weight, Standard-Pressure Ranges

Bottom connection



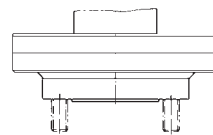
Dimensional Data (mm / inches) and Weight (kg / lb)

| Nominal Case Size | Flange-Ø d | a | a1 | b | b1 | c | c1 | c2 | G | h | Weight (approx.) | |
|-------------------|------------|-----------|------------|------------|----------|----------|-----------|-----------------|-------------|------|------------------|--------|
| | | | | | | | | | | | APCh | APSchG |
| 100 4 | 100 4 | 21 .83 | 37 1.46 | 72 2.83 | 6 .24 | 3 .12 | 20 .79 | G ½ B ½" BSP | 178 7.01 | 2.20 | 2.50 | |
| | 160 6 | | 59 2.32 | | | | | | | 4.85 | 5.51 | |
| 160 6 | 100 4 | | 47 1.85 | 82 2.23 | | | | | | 2.60 | 3.30 | |
| | 160 6 | | 4.20 | 4.90 | | | | | | | | |

Standard-Pressure Ranges

| Pressure Range mbar absolute | overrange protected up to |
|---------------------------------|------------------------------|
| 0 - 60 | 5 bar |
| 0 - 100 | |
| 0 - 160 | |
| 0 - 250 | |
| 0 - 400 | 10 bar |
| 0 - 600 | |
| 0 - 1,000 | |
| 0 - 1,600 | |
| 0 - 2,500 | |

Open Flange according to DIN EN DN 25, DN 50 others upon request



When ordering measuring flange Ø 100 mm (3.94"), open flanges DN 50 are delivered with through holes.
All the rest of the versions are manufactured with block flange (like plan).
Studs M12x45, grommets and nuts for DN 25 are delivered if desired, for DN 50 upon request.