

General Purpose Digital Pressure Gauge Model D1005PS

Stainless steel thinfilm sensor element
Accuracy 0,5 % or 0,25 % F.S.

Features

- Full scale terminal point accuracy
- Easy-to-read 4 ½ digit display
- Chemical resistant Noryl® case
- Versatility of 9 engineering units
- Min./max. recall
- On/off feature
- Display backlight optional
- Field calibration capability
- Meets ASME B40.7
- High proof pressure

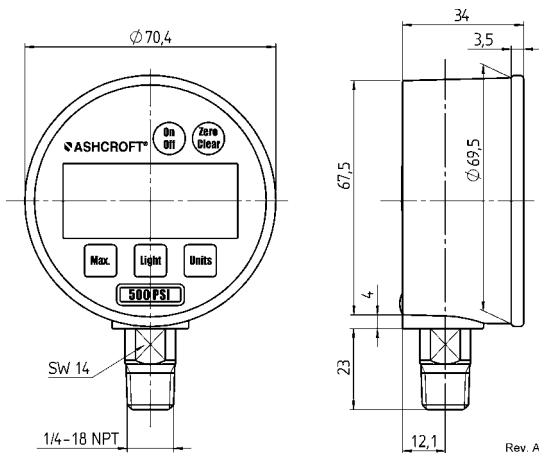


Ranges

-1 ... 0 bar up to 0 ... 1400 bar
-30 ... 0 in. Hg up to 0 ... 19999 psi

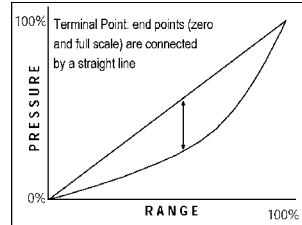
| Technical specification | D1005PS |
|-----------------------------------|---|
| Measuring principle | Thinfilm sensor element with internal diaphragm |
| Range [bar] | 2,5 4 6 10 16 25 40 60 100 160 250 400 600 700 1000 1400 |
| [psi] | -1/0 -1/2 -1/4 -1/7 -1/11 -1/21 |
| [in. Hg/psi] | 30 60 100 200 300 500 1000 1500 2000 3000 5000 10000 15000 19999 -30/0 -30/30 -30/60 -30/100 -30/150 -30/300 |
| Overpressure limit | Ranges ≤ 70 bar 2-times, ranges > 70 bar and ≤ 400 bar 1,5-times, ranges > 400 bar 1,2-times |
| Cycle life | 10 ⁸ cycles (20/80 % F.S.) |
| Pressure type | Gauge, vacuum and compound |
| Case size | 2 ½ Inch (70 mm) |
| Process connection | G ¼ B male according to EN 837-1, ¼ NPT according to ANSI/ASME B1.20.1, others on request |
| Connection orientation | Lower, optional 3 or 9 o'clock |
| Material | |
| Process connection | Stainless steel 316 (1.4401) |
| Sensor | Stainless steel 17-4 PH (1.4542/1.4548) |
| Case | Noryl® |
| Display | Lexan |
| Power supply | 2 AAA alkaline batteries, battery life > 1000 hours |
| Display | |
| Type | LCD with optional backlight |
| Digits, resolution | 4 ½ digit, 19.999 counts, 13 mm high |
| Features | Four level battery indication |
| Accuracy according DIN 16086 | 0,5 % F.S., optional 0,25 % F.S. |
| Method including | Terminal point Linearity, hysteresis and repeatability |
| Engineering units | psi, in. Hg, cmHg, mmHg, ft. H ₂ O, bar, kPa, MPa, kg/cm ² |
| Update rate | 10 times per second |
| Auto off [min] | 4 options: never, 5, 10 or 20 |
| Permissible | |
| Ambient temperature | -10 ... 60 °C |
| Storage temperature | -20 ... 70 °C |
| Compensated temperature | -29 ... 82 °C |
| Temperature influence | ±0,5 % / 10 K (ref. 20 °C), ranges -1/0 bar and 0/2,5 bar ±0,7 %/10 K (ref. 20 °C) |
| Shock resistance | ≤ 0,05 % F.S. at 100 g / 20 ms |
| Vibration | ≤ 0,1 % F.S. for 0 ... 2000 Hz at 20 g in any axis according to IEC 770 |
| CE-mark/EMC | According to EN 61326 (1998) + Annex A (heavy industrial) |
| Protection acc. EN 60 529/IEC 529 | IP54, IP65 with protective boot |
| Weight [kg] | 0,14 |
| Accessories, options | Protective boot, carrying pouch, calibration certificate |

General dimensions [mm]



Compare of methods terminal point accuracy and best fit straight line(BFSL)

ASHCROFT Digital pressure gauge with terminal point accuracy

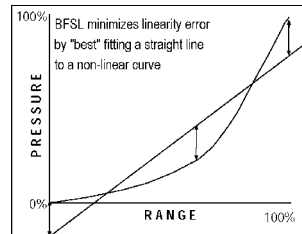


- All points between zero and full-scale will be within stated accuracy.
- Allows zeroing of gauge at start-up to eliminate any sensor offset.

Terminal point accuracy statement includes:

- Linearity
- Hysteresis
- Repeatability

Competitive digital gauges with best fit straight line (BFSL)



- Linearity error minimized by "best" fitting a straight line to a non-linear curve.
- BFSL gauges have a zero offset at calibration that must be maintained to ensure accuracy throughout range.

Order information

| Size | Type / System material | Process connection | Connection orientation | Range | Enginee-ring unit | Options |
|---------------------|--|--|---|--------|---------------------------|--|
| (25) 2 1/2" (70 mm) | (D1005PS) Stainless steel 316 (1.4401) | (02) 1/4 NPT male (13) G 1/4 B male (KJ) 1/4" straight JIS, BSP others on request | (L) Lower (E) 9 o'clock (D) 3 o'clock | -1/ 0 | BAR | (CD4) 4-point calibration certificate (AQ) Accuracy 0,25% (BL) Backlite (B1) Black protection boot (B2) Orange protection boot (B3) Blue carrying pouch (X6B) Oxygen cleaned |
| | | | | -1/ 2 | | |
| | | | | -1/ 4 | | |
| | | | | -1/ 7 | | |
| | | | | -1/ 11 | | |
| | | | | -1/ 21 | | |
| | | | | 0/ 2,5 | | |
| | | | | 0/ 4 | | |
| | | | | 0/ 6 | | |
| | | | | 0/ 10 | | |
| | | | | 0/ 16 | | |
| | | | | 0/ 25 | | |
| 0/ 40 | | | | | | |
| 0/ 60 | | | | | | |
| 0/ 100 | | | | | | |
| 0/160 | | | | | | |
| 0/250 | | | | | | |
| 0/400 | | | | | | |
| 0/600 | | | | | | |
| 0/700 | | | | | | |
| 0/1000 | | | | | | |
| 0/1400 | | | | | | |
| | | | | | psi and others on request | |

How to order

| | | | | | | |
|------|------------------------|--------------------|------------------------|-------|------------------|---------|
| Size | Type / System material | Process connection | Connection orientation | Range | Engineering unit | Options |
| 25 | D1005PS | 13 | L | 0/4 | BAR | BL=B1 |

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