

General Purpose Digital Pressure Gauge Model D1005PS

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

Features

- 0,5 % or 0,25 % terminal point accuracy
- 4 ½ digit display with enhanced resolution
- Easy readability with .50" character size and 12 o'clock view angle
- Nine engineering units of measure
- Standard ranges include vacuum and compound
- D1005PS with protective boot offers IP 54 weatherproof enclosure
- CE approvals
- Each D1005PS gauge is serialized for accurate traceability
- The versatile and economical choice for a wide variety of applications
- Meets ASME B40.7

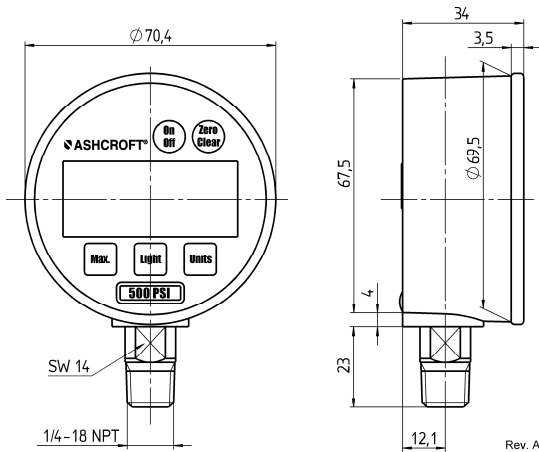


Ranges

-1 ... 0 bar up to 0 ... 1400 bar
-30 ... 0 in. Hg up to 0 ... 19.999 psi

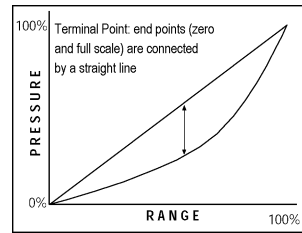
Technical specification	D1005PS
Measuring principle	Thinfilm sensor element with internal diaphragm
Range	2,5 4 6 10 16 25 40 60 100 160 250 400 600 700 1000 1400
in bar	-1/0 -1/2 -1/3 -1/5 -1/9 -1/15
in psi	30 60 100 200 300 500 1000 1500 2000 3000 5000 10.000 15.000 19.999
in in. Hg/psi	-30/0 -30/30 -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	Chemical resistant Noryl®
Display	Lexan
Power supply	Two AAA alkaline batteries, battery life approx. 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	Four options: never, 5, 10 or 20 minutes
Other functions	Zero, min./max. recall, battery level indication, field calibration capability
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 with protective boot
Weight in kg	0,14
Accessories, options	Protective boot, carrying pouch, calibration certificate

General dimensions in mm



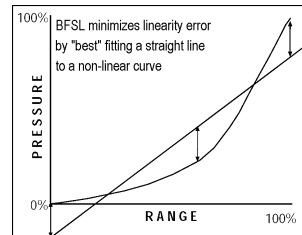
What you should know about digital gauge accuracy... Terminal Point versus Best Fit Straight Line Accuracy.

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.

Competitive digital gauges with best fit straight line (BFSL) accuracy



- 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.

PROBLEM

- Re-zeroing gauge may invalidate published accuracy specification
- Zero offset at start-up may be the result of either:
 - BFSL Calibration
 - Zero Drift

A clear accuracy statement:

- Some competitors refer to "typical" accuracy. They may or may not indicate the maximum tolerance allowed. This is misleading in that you have no assurance the gauge you receive will be one that falls into the stated "typical" accuracy. All Ashcroft Type D1005PS gauges are within the stated 1/2 % accuracy.
- Many competitors refer to stated accuracy as being \pm the least significant digit. This could add as much as 0.33 % error to stated accuracy. The 4 1/2 digit display on the Ashcroft Type D1005PS provides enhanced resolution needed to read stated accuracy.
- Terminal point accuracy allows re-zeroing to eliminate sensor offset.
- The D1005PS is also available with optional 1/4 % full scale terminal point accuracy.

Terminal point accuracy statement includes:

- Linearity
- Hysteresis
- Repeatability
- Terminal point accuracy

Order information

Size	Type/System material	Process connection	Connection orientation	Range	Engineering unit	Options		
(25) 2 1/2" (70 mm)	(D1005PS) Stainless steel 316 (1.4401)	(02) 1/4 NPT male	(L) Lower	-1/ 0	BAR	(CD4) 4-point calibration certificate		
			(E) 9 o'clock	-1/ 2				
			(KJ) 1/4" straight JIS, BSP	-1/ 3				
		(D) 3 o'clock	-1/ 5	(AQ) Accuracy 0,25 %				
			-1/ 9					
			-1/ 15					
		0/ 2,5	(BL) Backlite					
		0/ 4						
		0/ 6					(B1) Black protection boot	
		0/ 10						
		0/ 16						
		0/ 25						(B2) Orange protection boot
		0/ 40						
		0/ 60						
		0/ 100						
0/ 160	(B3) Blue carrying pouch							
0/ 250								
0/ 400								
0/ 600								
0/ 700								
0/ 1000		(6B) Oxygen cleaned						
0/ 1400								
psi and others on request								

Order example

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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