

# 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

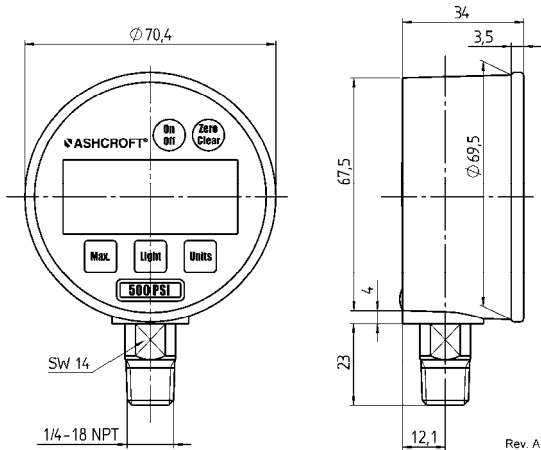


## Ranges

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

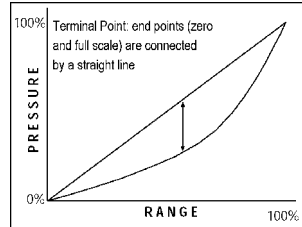
Technical specification	D1005PS
Measuring principle	Thinfilm sensor element with internal diaphragm
Range [bar]	2,5 4 6 10 16 25 40 60 100 160 250 400 600 700 1000 1400
[psi]	-1/0 -1/2 -1/3 -1/5 -1/9 -1/15
[in. Hg/psi]	30 60 100 200 300 500 1000 1500 2000 3000 5000 10.000 15.000 19.999
Overpressure limit	Ranges ≤ 70 bar 2-times, ranges > 70 bar and ≤ 400 bar 1,5-times, ranges > 400 bar 1,2-times
Cycle life	10 <sup>8</sup> 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	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 <sub>2</sub> O, bar, kPa, MPa, kg/cm <sup>2</sup>
Update rate	10 times per second
Auto off [min]	Four 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

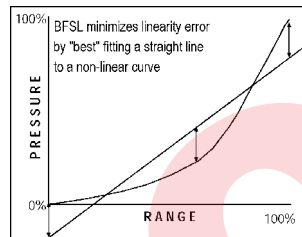


- All points between zero and full-scale will be within stated accuracy.
- Allows zeroing of gauge at start-up to eliminate any sensor offset.

## Terminal point accuracy statement includes:

- Linearity
- Hysteresis
- Repeatability

### Competitive digital gauges with best fit straight line (BFSL) 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.

## 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		
				-1/ 2				
				(13) G 1/4 B male			(E) 9 o'clock	-1/ 3
				(KJ) 1/4" straight JIS, BSP			(D) 3 o'clock	-1/ 5
				-1/ 9				
				-1/ 15				
				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								
others on request						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

## Ashcroft Instruments GmbH

Germany  
 Max-Planck-Str. 1, D-52499 Baesweiler  
 P.O. Box 11 20, D-52490 Baesweiler  
 Tel.: +49 (0) 2401 808-0, Fax: +49 (0) 2401 808-125

France  
 „206“ ZA Le Mandinet Rue des Campanules  
 F-77185 Lognes  
 Tel.: +33 (0) 1 60 37 25 30, Fax: +33 (0) 1 60 37 25 39

Website: [www.ashcrofteurope.com](http://www.ashcrofteurope.com)

e-Mail: [sales@ashcrofteurope.com](mailto:sales@ashcrofteurope.com)

United Kingdom  
 Unit 5 William James House  
 Cowley Road, Cambridge CB4 0WX  
 Tel.: +44 (0) 12 23 39 55 00, Fax: +44 (0) 12 23 39 55 01