

Differential Pressure Gauge Series 300 2.75" Dial

WIKA Datasheet 300 275D

Applications

- Suitable for test, laboratory, and production applications

Special Features

- Accurate and compact in size
- Available in 18 standard ranges (including vacuum and compound ranges)
- High differential pressure is applied to the capsule; low pressure to the case
- Maximum static (case) pressure is 150 psig

Standard Features

Size

2 3/4" dial

Scale Length

7" through one pointer revolution

Range

-400" H²O to 100 psi

Accuracy

0.33% of full scale

Sensitivity

0.2% of full scale

Pressure element volume

2.5 cc for the range 0-10" water;
2.0 cc for all other ranges

Case volume

179 cc

Maximum case pressure

150 psig

Maximum case leak rate

Will not exceed 0.64 x 10⁻⁵ std cc/sec or 0.0018 psi/hr

Case connection

1/8" female NPT pressure and static connections. Each has a built-in stainless steel filter and is located on the back of the case.



Differential Pressure Gauge Series 300 - 2.75" Dial

Case construction

Anodized aluminum with tempered-glass dial cover
Flush mounted by four screws through bezel

Materials exposed to measured gas

Pressure element: beryllium copper, brass, soft solder in ranges to 100" water; silver and soft solder in ranges above 100" water.

Case: aluminum, beryllium copper, brass, stainless steel, nylon, ethylene propylene rubber, soft solder, synthetic sapphire, white paint, drawing ink, lacquer.

Ranges above 100" water have silver solder also.

Options

- Calibration in most metric units is available at no extra cost
- Other units of calibration are available at extra cost
- Excess pressure relief valves to 100 psi are available at extra charge

Weight and shipping weight

Approx. 2 lbs.

Ordering Information

When ordering, please specify ordering number, range, and mounting angle. (Extra cost if mounting angle is other than vertical).

Note: This gauge should not be used for corrosive gases or for liquids of any kind.

Series 300 2.75" Differential Pressure Gauge

Compact for Space Saving

The Series 300 has a dial only 2¾" in diameter and a scale 7" long. Thus the gauge is compact, yet offers adequate readability.

Calibration is Traceable to National Institute of Standards and Technology (NIST)

A computer-assisted plotter marks calibration points and the graduations between them on each dial. This produces a scale, which precisely matches the characteristics of its own pressure capsule and mechanism. Instruments supplied are certified traceable to NIST.

Performs Better than Rated Accuracy of 0.33 of Full Scale

A readable scale, individually matched dials and mechanisms, excellent repeatability, and a precision mechanism add up to an accuracy of 0.3% full scale. These figures are the minimum performance, that can be expected. After rigorous testing, any Series 300 gauge that fails to better the rated accuracy is rejected.

Rugged Design

The anodized aluminum case has tempered-glass window. Overpressuring the instrument up to 10% above its full-scale range will not damage the mechanism nor affect accuracy.

Series 300 2.75" Differential Pressure Gauge

Standard Ranges and Ordering Numbers

Range and Calibration	Ordering Number	Graduation
0-10" water	62D-4C-0010	0.1"
0-20" water	62D-4C-0020	0.2"
0-40" water	62D-4C-0040	0.5"
0-60" water	62D-4C-0060	1.0"
0-100" water	62D-4C-0100	1.0"
0-200" water	62D-4C-0200	2.0"
0-300" water	62D-4C-0300	5.0"
0-400" water	62D-4C-0400	5.0"

Range and Calibration	Ordering Number	Graduation
0-15 psi	62D-4A-0015	0.2 psi
0-30 psi	62D-4A-0030	0.5 psi
0-60 psi	62D-4A-0060	1.0 psi
0-100 psi	62D-4A-0100	1.0 psi

*Can be calibrated as shown, or in any other standard pressure unit at no extra cost.

Connection for Different Pressure Readouts

Gauge Pressure:

pressure is applied to capsule (P), case (S) is open to atmosphere.

Differential Pressure:

high pressure to capsule (P); low pressure to case (S).

Absolute Pressure:

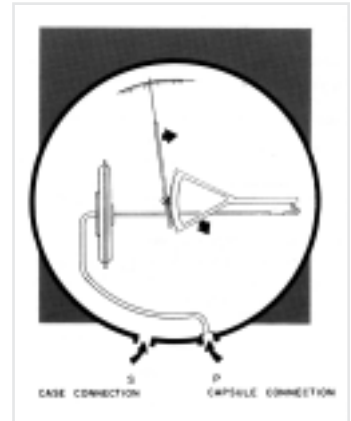
pressure to capsule (P), case (S) held at full vacuum with a pump.

Vacuum: (clockwise pointer): capsule (P) open to atmosphere, vacuum to case (S).

Vacuum and Compound Gauges Vacuum

(counter-clockwise pointer movement): case (S) open to atmosphere, vacuum to capsule (P)

Compound: The pointer can move two ways from center zero. One way is towards the capsule connection, the other way is towards the case. When the pressure to the capsule is higher than the pressure to the case, the pointer will give a positive reading; whereas when the pressure to the capsule is lower than the pressure to the case, the pointer will give a negative reading.



Vacuum and Compound Ranges

Range	Ordering Number *	Graduation
-10" water to 0	62D-7C-0010	0.1"
-20" water to 0	62D-7C-0020	0.2"
-400" water to 0	62D-7C-0400	5.0"
-5" to 0" to 5" water	62D-6C-0010	0.1"
-10" to 0" to 10" water	62D-6C-002	0.2"
-20" to 0" to 20" water	62D-6C-0040	0.5"

