



High Precision Gauge Pressure Indicators

Series 1500 8½" Dial



Series 1500 Gauges have capsule-type pressure elements up to and including the 150-psig range. Ranges of 200 psig and above have Bourdon tubes. The pressure to be measured is applied to the capsule or Bourdon tube through a single connection in the case. The case has a tempered-glass dial cover, solid-front dial, and a blow-out plug on the back. Readings are referred to atmospheric pressure in the case.

Available in 26 standard ranges (including vacuum and compound ranges), Series 1500 Gauges combine precision-liquid-column accuracy with aneroid convenience. They make excellent secondary standards and are rugged enough to maintain accuracy in many test and process applications.

STANDARD FEATURES

Accuracy: 0.066% of full scale
Range: to 1000 psig
Repeatability: 0.03% of full scale
Sensitivity: 0.01% of full scale
Hysteresis: 0.1% of full scale for ranges of 150 psi and below; 0.2% of full scale for 200 psi and above

Maximum temperature effect: 0.1% of full scale per 10°C/50°F change from 23°C/73.4°F

Scale length: Approx. 45" through 2 pointer revolutions.

Dial diameter: 8 ½"

Pressure element volume: Ranges 150 psi and below: 6.9 cc with pointer at zero; 8.6 cc, at full scale. Ranges 200 psi and above: 10 cc. For the range 0-125" water only: 6.3 cc with pointer at zero; 8.0 cc, at full scale

STANDARD RANGES AND ORDERING NUMBERS

Series 1500 8½" Gauge Pressure Indicator

| Range and Calibration | Ordering Number | Graduation |
|-----------------------|-----------------|------------|
| 0-4.5 psi | 62A-2A-0005 | 0.005 psi |
| 0-10 psi | 62A-2A-0010 | 0.01 psi |
| 0-15.5 psi | 62A-2A-0015 | 0.02 psi |
| 0-20 psi | 62A-2A-0020 | 0.02 psi |
| 0-30 psi | 62A-2A-0030 | 0.05 psi |
| 0-45 psi | 62A-2A-0045 | 0.05 psi |
| 0-60 psi | 62A-2A-0060 | 0.1 psi |
| 0-100 psi | 62A-2A-0100 | 0.1 psi |
| 0-150 psi | 62A-2A-0150 | 0.2 psi |
| 0-200 psi | 62A-2A-0200 | 0.2 psi |
| 0-300 psi | 62A-2A-0300 | 0.5 psi |
| 0-500 psi | 62A-2A-0500 | 0.5 psi |
| 0-1000* psi | 62A-2A-1000 | 1.0 psi |

*This range calibrated for liquid service only, but an additional error of 1-1500 is possible when used to measure gas pressure.

| Range and Calibration | Ordering Number | Graduation |
|-----------------------|-----------------|------------|
| 0-125" water | 62A-2C-0125 | 0.2" |
| 0-280" water | 62A-2C-0280 | 0.5" |
| 0-800 mm Hg | 62A-2D-0800 | 1.0 mm |
| 0-31.5" Hg | 62A-2B-0031 | 0.05" |
| 0-60" Hg | 62A-2B-0060 | 0.1" |
| 0-120" Hg | 62A-2B-0120 | 0.2" |
| 0-200" Hg | 62A-2B-0200 | 0.2" |
| 0-300" Hg | 62A-2B-0300 | 0.5" |

Vacuum and Compound Ranges

| Range | Ordering Number | Graduation |
|---------------------|-----------------|------------|
| -30" Hg to 0 | 62A-3B-0030** | 0.05" |
| -15 to 0 to 15" Hg | 62A-5B-0030** | 0.05" |
| -30 to 0 to 30" Hg | 62A-5B-0060** | 0.1" |
| -30 to 0 to 90" Hg | 62A-5B-0120** | 0.2" |
| -30 to 0 to 270" Hg | 62A-5B-0300** | 0.5" |

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

STANDARD FEATURES (cont.)

- Liquid service:** Gauges with ranges of 200, 300, and 500 psi (Bourdon tubes) can be calibrated for liquid service as optional. The 0-1000 psi range is calibrated for liquid service only.
- Case pressure:** Cases are open to atmosphere.
- Bleed tube:** Ranges of 200, 300, and 500 psi (Bourdon tubes), when calibrated for liquid service, have bleed tubes to facilitate filling and flushing. On the 1000 psi range a bleed tube is standard.
- Case connections:** 150 psi and below, 1/8" female NPT; 200 psi and above, 1/4" female NPT. Both have a built-in stainless steel filter and are located in the bottom of the case.
- Case construction:** Anodized aluminum with tempered-glass dial cover; flush mounted by three screws through the bezel.
- Zero adjustment:** The zero-adjusting screw is accessible through both the front and the back of the case.
- Materials exposed to measured gas:**
- 150 psi and below (capsule): Ni-Span C®, brass, 303 stainless steel, soft solder, silver solder. 303 stainless tubing and adapter with silver solder at the pressure connection are optional instead of brass and soft solder in the ranges up to and including 150 psi, but standard in the ranges of 200 psi and above.
- 200 psi and above (Bourdon tube): Ni-Span C®; 302, 303, and 304 SS, Easy-flow #45 brazing alloy, silver solder, nylon or TFE.
- Options:** Calibration in most metric units available at no extra cost. Other calibration units and two sets of graduations on the same dial are available at extra cost. Gauges with a range of 200 psi and higher can be calibrated for liquid service. (The 0-1000 psi range is calibrated only for liquid service.) Bleed tube on 200, 300, and 500 psi ranges (bleed tube is standard on 0-1000 psi). Also available installed in a compact, suitcase-type carrying case with a shock-mounted panel for the gauge. The cover is easily removed and connections can be made without removing the gauge from the case.
- Weight and shipping weight:**
- Ranges 0-150 psi and lower: 8 lb. and 10 lb..
Ranges 0-200 psi and higher: 8 ½ lb. and 11 lb..
- Ordering information:** When ordering, please specify ordering number, range, and mounting angle, (Extra cost if mounting angle is other than vertical.)
- Note:** Gases and liquids must be non-corrosive.

Series 1500 8½" High Precision Gauge Pressure Indicator

Wide Spaced Graduations Give Excellent Readability

Because the pointer covers full scale in two revolutions, Series 1500 scales are approximately 45" long. This is more than twice as long as single-revolution gauges with the same dial diameter (8 ½ inches)-and longer than gauges with twice the dial diameter. The expanded scale allows a minimum of 0.045 inch of white space between graduations. This and a knife-edge pointer allow readings to 0.02% of full scale.

Accurate Readout at a Glance

Compactness makes readout convenient as well as accurate. The operator takes readings from one position, which is not possible with large-diameter gauges. This cuts fatigue and errors. A revolution indicator is included and a mirror ring eliminates parallax errors. Graduations are easily seen; bold numbers are horizontally placed.

Calibration is Traceable to National Institute of Standards and Technology

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 each mechanism and pressure element. Calibration may be with any of several precision mercury manometers or primary standard pneumatic piston gauges. These are certified traceable to NIST.

Compact Size Saves Space in Panels

With the two-revolution arrangement, the long scale (approx. 45") requires a dial only 8 ½" in diameter. This saves panel space as well as dollars in panel construction. It makes more compact test units possible, such as consoles for ground support equipment.

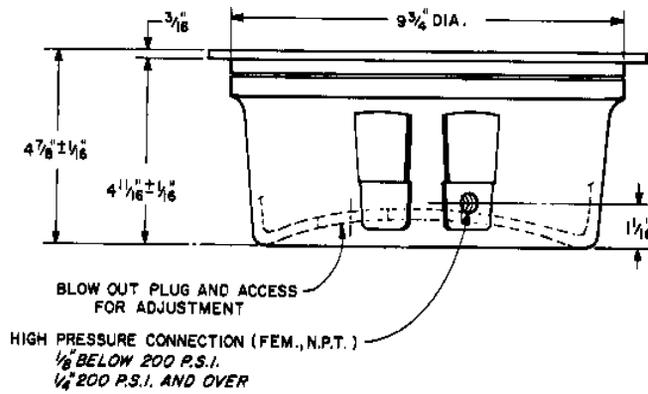
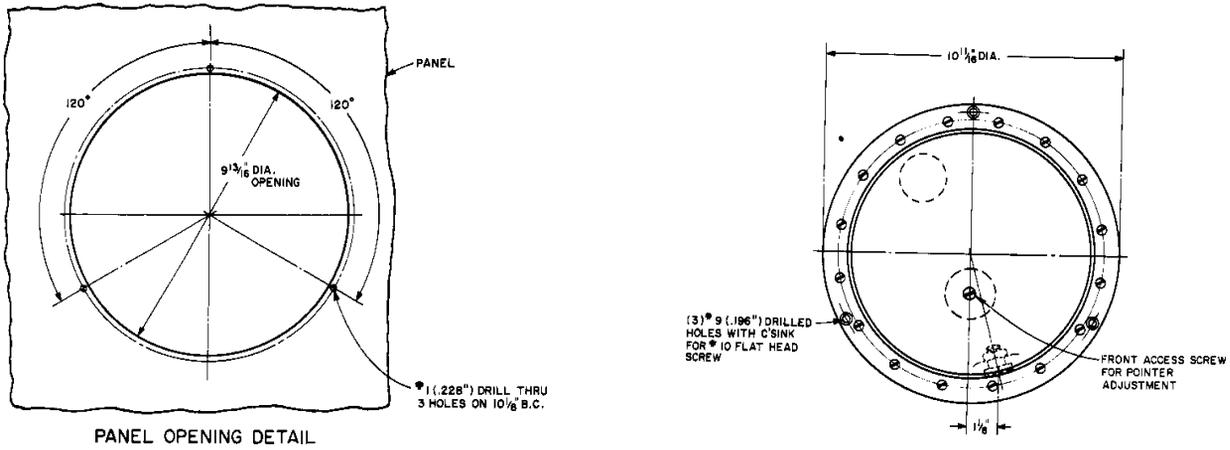
Performs Better than the Rated Accuracy

Excellent readability, 0.03% repeatability, custom dial calibration, and individual assembly and adjustment of each mechanism add up to an accuracy of 0.066% and sensitivity of 0.01% of full scale. These figures are the minimum performance which can be expected. After rigorous testing, any W&T Gauge which fails to better the rated accuracy is rejected.

Solid-Front Construction

The case has a heavy aluminum solid-front and a blow-out plug in back of the case. The pressure inlet is only 1/16" in diameter; the blow-out plug is 1 ½ inches. This design gives excellent protection against excessive pressure as the plug relieves at the slightest build-up. The case is heavy cast aluminum with a tempered glass dial cover. Overpressuring the instrument up to 25% above its full scale range will not damage the mechanism nor affect accuracy.

Series 1500 8½" Gauge Pressure Indicator





High Precision Gauge Pressure Indicators

Series 1000 6" Dial



Series 1000 gauges have capsules up to and including the 150 psig range and Bourdon tubes in the higher ranges. Pressure is applied to the capsule or Bourdon tube through a single case connection. Readings are referenced to atmospheric pressure in the case. Available in 26 standard ranges, (including vacuum and compound ranges) Series 1000 Gauges combine aneroid convenience with precision-liquid-column accuracy. They are compact, yet readability is excellent.

STANDARD FEATURES

Ranges: to 1000 psig
Accuracy: 0.1% of full scale
Repeatability: 0.03% of full scale
Sensitivity: 0.01% of full scale
Hysteresis: 0.1% of full scale for ranges of 150 psi and below; 0.2% of full scale for 200 psi and above

Maximum temperature effect: 0.1% of full scale per 10°C/50°F change from 23°C/73.4°F

Scale length: 30" through two pointer revolutions

Dial diameter: 6"

Pressure element volume: Ranges 150 psi and below: 6.9 cc with pointer at zero; 8.6 cc, at full scale. Ranges 200 psi and above: 10 cc. For the range 1-125" water only: 6.3 cc with pointer at zero; 8.0 cc, at full scale

STANDARD RANGES AND ORDERING NUMBERS

Series 1000 6" Gauge Pressure Indicators

| Range and Calibration | Ordering Number | Graduation |
|-----------------------|-----------------|------------|
| 0-4.5 psi | 62B-2A-0005 | 0.01 psi |
| 0-10 psi | 62B-2A-0010 | 0.02 psi |
| 0-15.5 psi | 62B-2A-0015 | 0.02 psi |
| 0-20 psi | 62B-2A-0020 | 0.05 psi |
| 0-30 psi | 62B-2A-0030 | 0.05 psi |
| 0-45 psi | 62B-2A-0045 | 0.1 psi |
| 0-60 psi | 62B-2A-0060 | 0.1 psi |
| 0-100 psi | 62B-2A-0100 | 0.2 psi |
| 0-150 psi | 62B-2A-0150 | 0.2 psi |
| 0-200 psi | 62B-2A-0200 | 0.5 psi |
| 0-300 psi | 62B-2A-0300 | 0.5 psi |
| 0-500 psi | 62B-2A-0500 | 1.0 psi |
| 0-1000*psi | 62B-2A-1000 | 2.0 psi |

*This range calibrated for liquid service only, but an additional error of 1-1500 is possible when used to measure gas pressure.

| Range and Calibration | Ordering Number | Graduation |
|-----------------------|-----------------|------------|
| 0-125" water | 62B-2C-0125 | 0.2" |
| 0-280" water | 62B-2C-0280 | 0.5" |
| 0-800 mm Hg | 62B-2D-0800 | 1.0 mm |
| 0-31.5 mm Hg | 62B-2B-0031 | 0.05" |
| 0-60" Hg | 62B-2B-0060 | 0.1" |
| 0-120" Hg | 62B-2B-0120 | 0.2" |
| 0-200" Hg | 62B-2B-0200 | 0.5" |
| 0-300" Hg | 62B-2B-0300 | 0.5" |

Vacuum and Compound Ranges

| Range | Ordering Number | Graduation |
|---------------------|-----------------|------------|
| -30" Hg to 0 | 62B-3B-0030** | 0.05" |
| -15 to 0 to 15" Hg | 62B-5B-0030** | 0.05" |
| -30 to 0 to 30" Hg | 62B-5B-0060** | 0.1" |
| -30 to 0 to 90" Hg | 62B-5B-0120** | 0.2" |
| -30 to 0 to 270" Hg | 62B-5B-0300** | 0.5" |

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