

Standard Test Pressure/Vacuum Gauge



Capsule Type - Model 12

Application:

Used for the calibration of pressure gauges or pressure transducers, Pneumatic Controllers, Valves, Transmitters etc.

Nominal Dial Size:

150,160 & 250mm – also available in 200mm

Accuracy:

class 0.25%

Every Standard Test Gauge is issued with a point-by-point Test Certificate of readings on its final test. The error in reading is guaranteed not to exceed one quarter of one percent of full scale range at any point of the scale on either rising or falling pressure/vacuum.

Ranges:

-1 to 1000 bar & psi or to customer requirements

We manufacture a wide range of instruments to customer's special requirements, and shall be pleased to discuss and advise on your specifications.

Specifications

Connection:

Types 1201 & 1202:

3/8" or 1/2" bsp ranges up to 0/40 bar or (0/600 lbf/in²)

1/2" bsp ranges 0/60 bar to 0/1000 bar or (0/1 000 lbf/in² to 0/1 5000 lbf/in²)

Types 1203, 1206 & 1208:

3/8" bsp on all ranges

Tube:

Ranges up to 40 bar

— 'C' type copper beryllium (Cu Be₂),

Range 60 bar to 1000 bar (1000 to 15000 lbs/in²)
coil type copper beryllium Cube

Movement:

Non-ferrous, specially designed and manufactured to achieve high accuracy and smooth operation.

Dial:

White aluminium with mirror scale, black markings

Pointer:

Aluminium with nickel plated brass collets, accurately balanced with knife edge tip to eliminate parallax error

Case & Bezel:

Steel with matt black powder coat, 304 St St also available

Window:

Glass 3mm thick, acrylic plastic and laminated safety glass are optional

Special Dial ranges different from standard, or custom artwork, available on request

Standard Test Pressure/Vacuum Gauge

Effects of pressure medium on accuracy:

If a gauge has been calibrated on air and is subsequently used on liquid the weight of liquid in the tube will weigh down the end of the tube and can thus cause an error in the gauge reading. This effect is significant on low pressure gauges and so STANDARD TEST GAUGES with graduations up to and including 16 bar or 250 lbf/in² are calibrated on air if they are to be used on air. It is therefore important when ordering to say whether such gauges are to be used on AIR or to be used on LIQUID. The dials of all gauges calibrated on air are marked "Calibrated on Air, use no liquid". Gauges with ranges above 16 bar or 250 lbf/in² calibrated on oil or air show no significant error so, the pressure medium need not be specified when ordering. All vacuum gauges are calibrated on air.

Safety Pattern or Gas Pattern STANDARD TEST GAUGES

These gauges are similar to Figure 12 but safety pattern with acrylic or laminated safety glass window, case has integral partition between the tube and the dial, and is fitted with a blow-out back. This Safety Pattern construction complies with the safety requirements of EN837 and should always be specified when gauges range above 25 bar is to be used on gases or on volatile liquids.

Oil free gauges

The tubes and connection blocks of these gauges are degreased before assembly and the strictest precautions are taken to see that no oil enters the tube during manufacture. The dials are marked 'use no oil'. When ordering, please state whether the gauges are to be calibrated on AIR or LIQUID.

Scales & dial markings

The scale is marked by fine lines on a white background and there is a figure at each 10th division. The number of divisions is given in the table below, the column headed 20 being also applicable to 200, 2000 etc. Graduations are available in bar, kPa, MPa, Kg/cm², lbf/in² etc. and also with two scales. The table shows the preferred two scale dials with imperial and metric units.

Single Scale Dials

Max Graduation Scale

| | | | | | | | | | | |
|----|----|----|----|----|----|----|-----|-----|-----|-----|
| 20 | 25 | 30 | 40 | 50 | 60 | 80 | 100 | 120 | 150 | 160 |
|----|----|----|----|----|----|----|-----|-----|-----|-----|

Divisions 160mm dial

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 200 | 125 | 150 | 200 | 100 | 120 | 200 | 200 | 120 | 150 | 160 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

Divisions 200 & 250mm dial

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 200 | 250 | 300 | 200 | 250 | 300 | 200 | 200 | 240 | 300 | 320 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

Dual Scale Dials / Outer scale lbf/in²

Max Graduation Scale

| | | | | |
|----|----|----|----|-----|
| 15 | 20 | 30 | 60 | 100 |
|----|----|----|----|-----|

Divisions 160mm dial

| | | | | |
|-----|-----|-----|-----|-----|
| 150 | 100 | 150 | 120 | 100 |
|-----|-----|-----|-----|-----|

Divisions 200 & 250mm dial

| | | | | |
|-----|-----|-----|-----|-----|
| 150 | 200 | 300 | 300 | 200 |
|-----|-----|-----|-----|-----|

Inner scale bar

Max Graduation Scale

| | | | | |
|---|-----|---|---|---|
| 1 | 1.4 | 2 | 4 | 7 |
|---|-----|---|---|---|

Divisions 160mm dial

| | | | | |
|-----|-----|-----|-----|-----|
| 100 | 140 | 100 | 100 | 140 |
|-----|-----|-----|-----|-----|

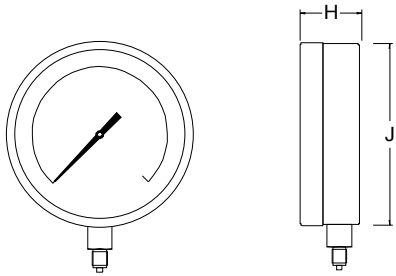
Divisions 200 & 250mm dial

| | | | | |
|-----|-----|-----|-----|-----|
| 200 | 280 | 200 | 200 | 280 |
|-----|-----|-----|-----|-----|

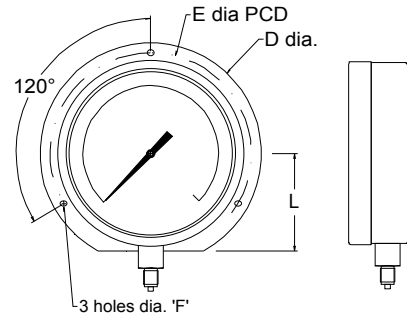
Datasheet 12

Standard Test Pressure/Vacuum Gauge

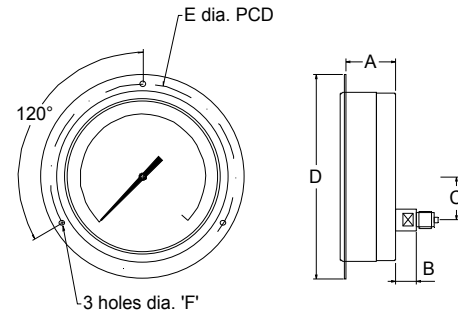
Model 1201
not available in 150mm



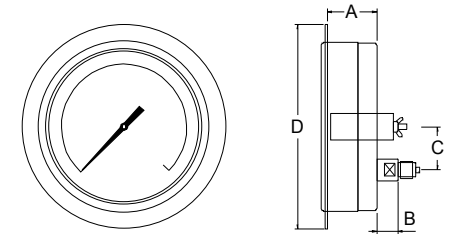
Model 1202
not available in 150mm



Model 1206



Model 1208



| Nominal Diameter | A | B | C | D | E | F | H | J | PANEL CUTOUT |
|------------------|----|----|----|-----|-----|---|----|-----|--------------|
| 150 | 58 | 17 | 51 | 194 | 178 | 7 | 64 | 149 | 154 |
| 160 St St | 30 | 17 | 51 | 196 | 178 | 7 | 48 | 159 | 162 |
| 200 | 48 | 22 | 51 | 240 | 225 | 7 | 54 | 200 | 210 |
| 250 | 50 | 20 | 51 | 305 | 276 | 7 | 56 | 250 | 256 |

150, 160, & 250mm gauges Model 1201, 1202, 1206 & 1208