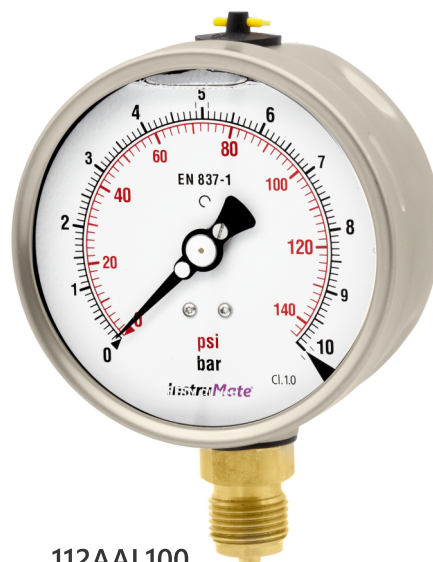


112AAL160



112AAL100



112AAL63

## Application

- ✓ Hydraulic systems, pumps and presses
- ✓ Measuring needs with sudden or dynamic pressure changes
- ✓ Vibrating machineries, diesel engines
- ✗ Do not use directly for medias that are viscous, crystallizing and corroding copper alloy

## Special Features

- ✓ Re-calibratable and re-adjustable
- ✓ Popular bayonet bezel design
- ✓ No leakage guaranteed
- ✓ Heavy duty mechanism for dial sizes 100 & 160mm

## Description

InstruMate group of oil fillable pressure gauges covers a series of oil-filled pressure gauges efficient for plants or machineries with pulsating pressures or mechanical vibrations. As sensitive a pressure gauge as might be, vibration threatens its long life span and that is the time InstruMate 112 series come into action.

InstruMate 112AA is not only shock resistant when filled, but also it has a heavy duty mechanism for more demanding applications (only with dial size 100 and 160mm) with the accuracy of 1% according to EN837-1. A safety glass and a micro-adjustable pointer are other advantages which distinguish it from average class of oil filled gauges in 100, 160mm dial size.

Since oil filled pressure gauges have a copper alloy connection, considerations about their corrosion and clogging is recommended.

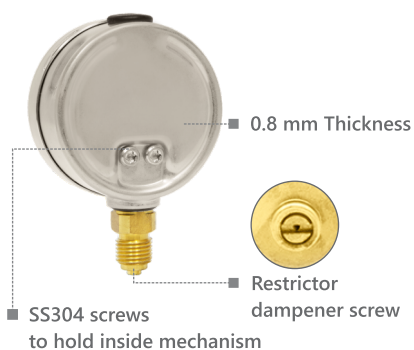
The model 112AA is constructed from a matte stainless steel case with a DIN type bayonet bezel.

All InstruMate pressure gauges have geometrically balanced dial designs, thus a much easier reading experience.

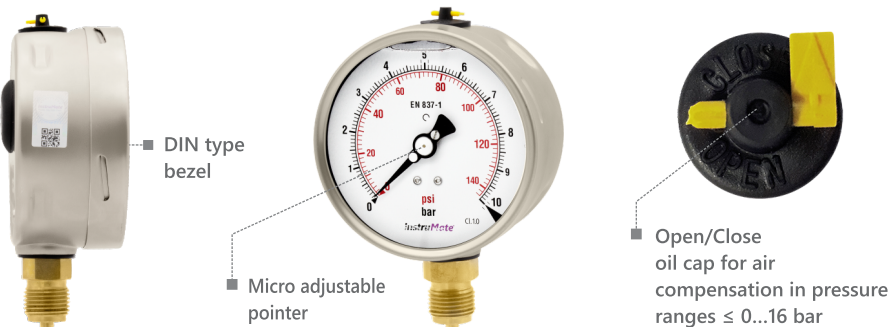
### Default Specification

| Design   | Nominal sizes in mm  |
|--|--|
| EN 837-1   | 63, 100, 160   |
| Process Connection   |  |
| Brass NS 63: G ¼<br>NS 100,160: G ½  | Bottom connection: 112AAL<br>Center or lower back connection: 112AAB   |
| Temperature Effect   | Pressure Element   |
| ± 0.04 x (t <sub>2</sub> -t <sub>1</sub> ) % of the span<br>t <sub>1</sub> is the Reference temperature in degrees celsius.<br>t <sub>2</sub> is the Ambient temperature in degrees celsius. | Copper alloy<br>C-type for ≤ 60bar<br>Helical for > 60bar  |
| Pressure Limitations   |  |
| NS 63<br>Steady: 75% of full scale<br>Fluctuating: 65% of full scale<br>Over-Pressure: 100% of full scale  | NS 100, 160 (Heavy duty)<br>Steady: 100% of full scale<br>Fluctuating: 85% of full scale<br>Over-Pressure: 130% of full scale (short time) |
| Scale Range  | Permissible Temperature  |
| NS 63: 0...1 bar to 700 bar<br>NS 100,160: 0...0.6 bar to 700 bar<br>Vacuum & compound ranges  | Ambient: -20...+60 °C<br>Medium: +65 °C Maximum  |
| Pointer  | Window   |
| NS 63: Aluminum Pointer<br>NS 100, 160: Micro-Adjustable Pointer   | NS 63: Instrument Glass<br>NS 100,160: Safety Glass  |
| Pressure units   | Accuracy   |
| bar/psi  | NS 63: 1.6% of full scale<br>NS 100, 160: 1% of full scale   |
| Filling oil  | Dial   |
| Glycerin   | Aluminum   |
| Case   | Movement   |
| Matte SS304 (DIN type)   | Copper alloy   |

112AAL63



112AAL100

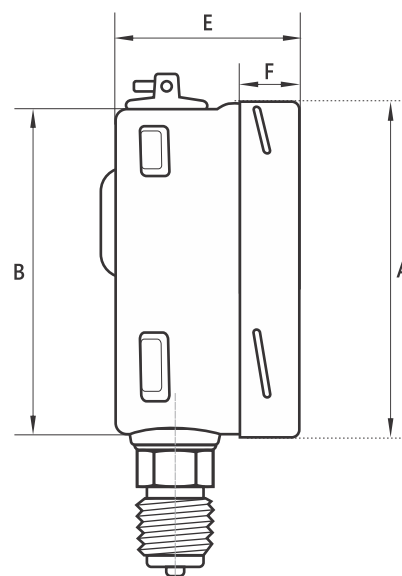
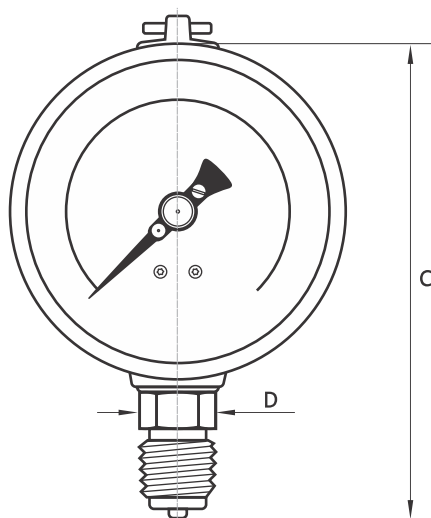


## Options

- ✓ Requested process connections other than stated in the table
- ✓ Safety glass for 63mm
- ✓ Silicon oil or to be shipped without oil
- ✓ Other pressure units

## Dimensions (in mm)

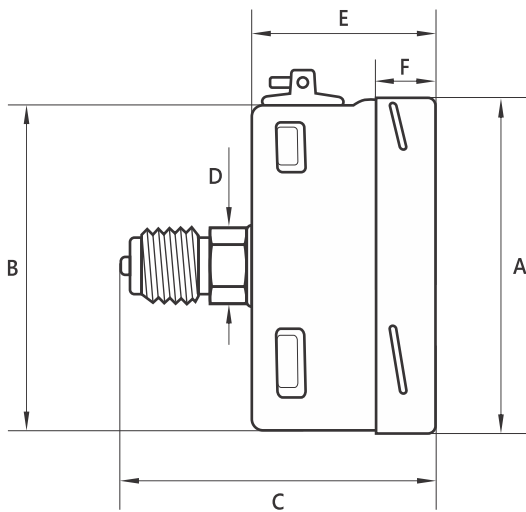
### ■ DS 63, 100, 160 Bottom Connection



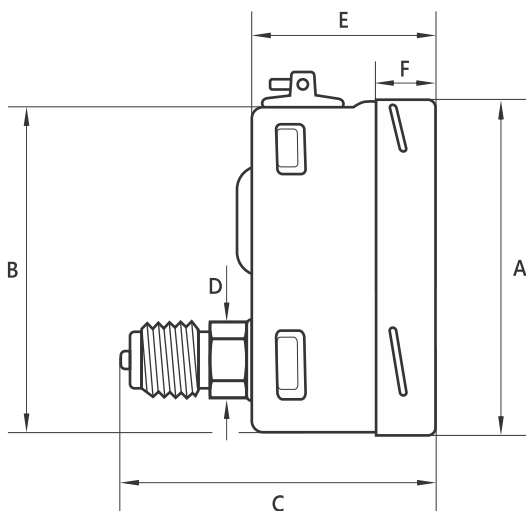
112AAL

| Nominal Size | A     | B     | C     | D  | E    | F    | KG   |
|--------------|-------|-------|-------|----|------|------|------|
| 63           | 63.5  | 62.2  | 89    | 14 | 33.5 | 12.5 | 0.23 |
| 100          | 100.4 | 99    | 136   | 22 | 48.5 | 16.5 | 0.84 |
| 160          | 160.5 | 158.5 | 195.5 | 22 | 48.5 | 17.5 | 1.7  |

■ DS 63 Center Back Connection



■ DS 100 Lower Back Connection



112AAB

| Nominal Size | A     | B    | C    | D  | E    | F    | KG    |
|--------------|-------|------|------|----|------|------|-------|
| 63           | 63.5  | 62.2 | 59   | 14 | 34   | 12.5 | 0.245 |
| 100          | 100.4 | 99   | 88.8 | 22 | 48.5 | 16.5 | 0.88  |

| Thread Type | Code |
|-------------|------|
| NPT         | N    |
| BSPP (G)    | B    |
| BSPT        | Z    |
| Metric      | M    |

| Thread Size                       | Code    |
|-----------------------------------|---------|
| 1/4                               | 4       |
| 1/2                               | 2       |
| 3/8                               | 3       |
| 1/8                               | 8       |
| for metric sizes write the number | M20×1.5 |

### How To Order

|                 | Product Group Name        | Model | Mounting | Nominal Size | Thread Type | Thread size | Scale Range   | Options |
|-----------------|---------------------------|-------|----------|--------------|-------------|-------------|---------------|---------|
| <b>Example:</b> | Oil filled Pressure Gauge | 112AA | L        | 100          | B           | 2           | 0...25bar-psi | –       |

Or simply order by item number on the basis of your previous purchases.

# InstruMate®

InstruMate Co, Limited

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