

NOTES: The options listed above are only a partial listing. For other options on these or other pressure instruments please call the factory for availability. Not all variations available for each size, connection, range in a specific gauge, model/type. Minimums may also apply.

(1) Available on 40mm and 50mm.

ISO 9001
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Seven Steps to Select a Pressure Gauge

For a mechanical pressure gauge, accuracy is defined as a percentage of the full-scale range. While requirements differ from one industry to another, the following are general guidelines:

- Test Gauges and Standards: 0.25% through 0.10% full scale accuracies.
- Critical Processes: 0.5% full scale accuracy.
- General Industrial Processes: 1.0% accuracy. Less Critical Commercial Uses: 2.0% accuracy.

Refer to ASME B40.100 or the DIN specifications for more information on accuracy.

Pressure gauge dial sizes range from 1½" to 16" diameters. Generally, readability requirements, space limitations and required gauge accuracy determine dial size. Accuracies of 0.25% or 0.5% generally have dial sizes of 4½" or larger since more dial graduations are required.

Environmental considerations include ambient temperature, air-borne particulate, condensation, humidity, water and chemicals, all of which can affect gauge performance. Ambient temperature may affect the accuracy and integrity of the gauge. Gauges are available either temperature compensated or non-temperature compensated. Ambient conditions may require that the gauge be isolated from temperature extremes. When required, the gauge should be isolated from temperature extremes with a flexible line assembly.

When ambient conditions are corrosive, contain a large number of particulate or if the gauge will be exposed to a wet or humid environment like humidity, wash-downs or rain, specify a gauge that is weatherproof/hermetically sealed or liquid filled.

The wetted parts of the pressure gauge, the Bourdon tube and socket must be compatible with the process media. If not compatible with the wetted parts of the gauge, corrosion will occur. Corrosion of gauge wetted parts will eventually cause gauge failure and possibly safety issues. When the gauge wetted parts are not compatible with the process media, a diaphragm should be considered.

Gauges are available with a variety of connections including NPT, DIN, JIS, BSP & SAE. Process pressure gauges with 4½" dial sizes or larger are most often supplied with a ½" NPT connection to best support the gauge. Factors to consider when selecting a pressure gauge connection include process pressures, gauge size and weight, space limitations, leak integrity, and past experience.

Consider the following mounting options when selecting a pressure gauge:

- Stem mount lower connect
- Wall/surface mount lower connect
- Panel mount back connect
- U-clamp flush mount back connect, for panel mounting
- Front flange flush mount back connect, for panel mounting

ASME B40.100 recommends that normal operating pressure be confined to 25%-75% of the scale. If pulsation is present in the process, maximum operating gauge pressure should not exceed 50% of the full-scale range.

To properly select a pressure gauge, consider the gauge process, range, environment, accuracy, dial size, connection and mounting requirements.

Seven Steps to Pressure Gauge Selection

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NOTE: Some model numbers may not be available in all sizes, ranges and connections.

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