

REFERENCE

EN 837-3
ANSI B 40.100
IS 3624

CERTIFICATE

ISO 9001 : 2008
ISO 14001 : 2004
BS OHSAS 18001 : 2007

1 WARNING

Diaphragm Type Pressure Gauges are used to isolate pressure gauges from clogging and/or corrosive media. Standard diaphragm Bottom Flanges and diaphragms are made of stainless steel; however, a variety of materials from carbon steel to Hastelloy® C-276 / Monel are available to meet the demands of most applications. ITEC diaphragm Pressure Gauges can operate in pressure applications, Pressure Ranges 100 mmwc to 25 bar, Vacuum & Compound Pressure Ranges and media temperature between -40°C and 371°C. These gauges no any liquid between flanges and diaphragm.

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ITEC diaphragm type pressure gauges seal are an excellent value and offer savings by:

- Meeting very low pressure to medium pressure requirements
- Extending the service life of the pressure instrument
- Reducing the cost of installation
- Reducing or eliminating maintenance costs
- Light weight

3 General

The diaphragm is separates the gauge from the process medium. Any part of the diaphragm pressure gauge (i.e., diaphragm, lower housing, gaskets) which will be exposed to the process medium is selected from materials resistant to pressure, temperature and possible chemical attack by the process medium.

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In the diaphragm pressure gauges, the diaphragm is connected by flexible rod to the internal mechanism, When there is a pressures acting on the diaphragm, the diaphragm deflected up / down side, causing a displacement of the connecting rod. A precision mechanism translates the linear displacement of the diaphragm connecting rod to angular movement of the gauge's dial pointer. The pointer's displacement range of 270° corresponds to the full scale differential pressure.

5 Selection

When selecting a diaphragm type pressure gauges, the following details must be taken into consideration to ensure a safe and satisfactory operation.

1. Process composition.
2. Temperature
3. Mounting position
4. Pressure range
5. Response time
6. Pressure instrument
7. Process connection

6 INSTALLATION

To ensure safe working during installation and servicing, suitable shut-off valves must be installed in the plant, enabling the device:

- To be depressurized or taken out of operation
- To be disconnected from the mains supply,

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Gauges should always be mounted by using the wrench / Spanner flats (squares) provided on the pressure connection. Under no circumstances should the pressure connection be tightened by applying force to the gauge case by hand.

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It is preferable to mount gauges in a location free from mechanical vibration. If this is not possible, a liquid filled gauge or a flexible capillary connection is necessary.

The gauge should be located so that it is not exposed to abnormally low or high temperatures. This may cause an additional accuracy error, depending on the deviation from the reference temperature of 25°C.

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MAINTENANCE

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An installation shall always be brought into service carefully to avoid surges or sudden variations in temperature. Isolating valves shall there for be opened slowly.

The overall safety of an installation often depends on the operating condition of the Diaphragm pressure gauges it contains. It is essential that the measurements indicated by these gauges are reliable. Thus any pressure gauge whose indications appear to be abnormal shall be immediately removed, verified or re-calibrated if necessary.

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Confirmation of gauge accuracy should be maintained by periodic testing. Verification and re-calibration shall be carried out by competent personnel using appropriate test equipment.

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