

## REFERENCE

EN 837-3  
IS 3624

## CERTIFICATE

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

### 1 WARNING

**1a** For efficient working of your gauge, please read all instructions carefully before attempting to installation and Operation.

**1b** Do not exceed maximum operating pressure given on the gauge label / Dial. Check fluid compatibility with wetted parts before use.

**1c** Do not connect "High" and "Low" ports to wrong pipe ends. Do not subject the gauge to excessive vibration. The gauge is never to be used in an area where more dust / dirty is present in the media. It will affect the bellow function. As the gauge works on two bellow coupling principal, the gauges should be handle with more care otherwise calibration will be affected. Do not try to open any part of the gauge for any reason, because if not reassembled properly, calibration and operation will be affected.

### 2 GENERAL

Variations in pressure between high and low ports are sensed by a bellow sensor which moves in proportion to the pressure difference. The pressures to be compared act on flexible stainless steel bellows on either side. The two bellows are mechanically linked by a rigid connecting rod. When pressures are equal on both bellows, the pointer stay at zero position. When there is a difference in pressures acting on the two bellows, they are deflected away from the high pressure side, towards the lower pressure side, causing a displacement of the connecting rod. A precision mechanism translates the linear displacement of the bellow 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.

### 3 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

**4** 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.

**5** 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.

**6** 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.

### 7 MAINTENANCE

All the gauges should be checked regularly for wear and tear, accuracy, and proper functioning by comparing them to a precision test gauge or a dead weight tester. Replace all broken or damaged parts immediately.