

Thermometers

Introduction

These notes have been prepared to assist in the selection and installation of Thermometers for the purpose of ensuring, as far as possible they give a satisfactory service on the application for which they were intended and to ensure the highest possible level of safety.

For further information, reference should be made to relevant British Standards on which these notes are largely based. All dial instruments included within this catalogue are available with contractors motifs printed onto the dials.

Location of Bulb

The bulb of the instrument at the base of the stem, should be located where it is subject to the true temperature of the heated medium. Temperature gradients within the medium must be allowed for, and with instruments allowing variable depth of immersion (compression gland type) the bulb position should be varied experimentally until the optimum position is found. The full length of the sensitive portion of the bulb must at all times be immersed in the medium but direct contact with the source of heat to the medium should be avoided.

When securing the bulb on its location by means of the gland screw(s) care must be taken not to twist or distort the neck of the bulb. Where a pocket has been supplied this should be securely installed before the bulb is inserted. It may be found that the rate of the response of a pocketed bulb is improved by filling the intervening space with oil or copper (depending on the materials and operating temperatures).

Location Tubing

The tube between the bulb and the instrument should be routed so that it is not subjected to large temperature changes, and should be supported in cleats. Bends should not be less than 1 inch radius and under no circumstances must the tubing be cut. Where the tubing is likely to be exposed to corrosive atmosphere the exterior should be treated with an anti-corrosive paint and, in any case, should be inspected periodically for any signs of damage.

The capillary tubing between the bulb and the indicator is coiled for despatch purposes. This tubing must be uncoiled carefully in order to avoid twisting or kinking which would affect the accuracy of the system.

Maintenance

Where there is a risk of corrosion, the bulb should be inspected periodically. If corrosion is evident it should be removed if possible by non-abrasive treatment. Any contamination on the bulb should be removed. Where a pocket is fitted this should be removed and inspected and treated similarly. If severe corrosion is evident the pocket should be replaced. It is advisable to inspect the capillary tubing periodically for corrosion or mechanical damage. An occasional temperature check should be carried out.

Maximum Working Temperature

The working temperature should not exceed 60% of the full scale reading.

Thermometers

Certification

Test Certificates and Calibration Certificates are available for all 80, 100 and 150mm dia pressure gauges shown in this price list. They are also available for vapour pressure and mercury-in-steel thermometers – Price on application.

Test and Calibration Certificates show the instrument serial number which is also printed on the dial and for this reason it is necessary to order these prior to manufacture.

As an alternative to test certificates all BSS branches are able to provide Quality Statements that conform to all the test details shown on a test certificate but do not bear serial numbers.

Calibration certificates are more detailed and are more generally supplied with instruments used specifically for test purposes.

Thermometers

Altitherm Combined Altitude and Thermometer

FIG EG100 – Black Steel Case

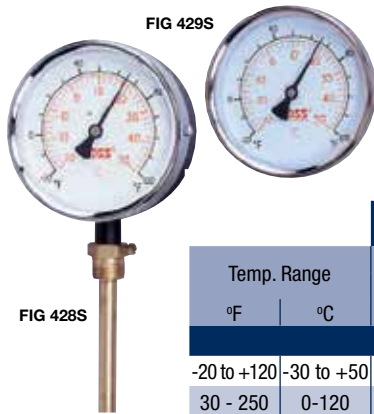
Dial Size: 3" (80mm).
 Bezel: Chrome.
 Connection Size: ½" BSP.
 Dual Scale Reading.



| Description | °F | °C | Feet | Metres | BSS Code |
|-------------|--------|-------|-------|--------|----------|
| FIG EG100 | 32-250 | 0-120 | 0-80 | 0-25 | 80015101 |
| Altitherm | 32-250 | 0-120 | 0-130 | 0-40 | 80015112 |

Bi-Metal Thermometers – Dial Thermometers

FIG 428S AND FIG 429S – Black Steel Case



Dual Size: 4" and 6" (100mm and 150mm).
 Bezel: Chrome plated.
 Connection Size: ½" BSP.
 Immersion Length: 63mm or 100mm.
 Complete with pocket. Dual Scale Reading.
 Accurate to +/-1% FSD.

| Temp. Range | | 4" (100mm) Dial | | 6" (150mm) Dial | |
|--|------------|------------------|-------------------|------------------|-------------------|
| | | Immersion Length | | Immersion Length | |
| °F | °C | 63mm BSS Code | 100mm BSS Code | 63mm BSS Code | 100mm BSS Code |
| FIG 428S Vertical Immersion Type | | | | | |
| -20 to +120 | -30 to +50 | 80015400 | 80015529 | 80015710 | 80015776 |
| 30 - 250 | 0-120 | 80015411 | 80015540 | 80015721 | 80015787 |
| 40 - 480 | 0-250 | 80015422 | 80015551 | 80015732 | 80015798 |
| FIG 429S Centre Back Immersion Type | | | | | |
| -20 to +120 | -30 to +50 | 80015444 | 80015562 | 80015743 | 80015806 |
| 30 - 250 | 0-120 | 80015455 | 80015573 | 80015754 | 80015817 |
| 40 - 480 | 0-250 | 80015466 | 80015584 | 80015765 | 80015828 |