Standard - Thermometer

Instruction for use 2.0447.00.002

Model / Technical Data

Order-No.	2.0447.00.002
Measuring range	- 30 ... + 50 °C
Accuracy	± 0,2 K
Graduation	0,2 °C
Model	leaning on DIN 58660
Dimension	∅ 16 x 370 mm

Standard-thermometers are designed for the air temperature measurement in the field of meteorology. The ambient temperature is read from the mercury-filled capillary.
They are also well-suited for the use in twos for psychrometers.

Direction for use

Before use please make sure that the liquid column is not interrupted, and that no liquid has been collected in the safety extension of the capillary. Violent shocks during transport (or use for a long time, too) can cause these interrupts of the liquid column.

Separated liquid columns – what do you do?

Before use of a liquid in glass thermometer, make sure that the liquid column is not interrupted. These phenomena are frequently caused by violent shocks during transport.

In most cases it is possible to rejoin broken columns by application of the following directions:

If there is only a small interruption at the upper end of the column, try to rejoin it by holding the thermometer in a vertical position and taping it against the inside of the hand.

Another procedure may be effective by warning the bulb until the column reaches the separated portions in the safety chamber at the upper end of the capillary tube. Great care is necessary to avoid filling the safety chamber completely with mercury, which might produce pressures large enough to burst the bulb. Joining the mercury is more readily accomplished if the quantity in either cavity has first shattered into droplets by tapping the thermometer laterally against the hand.

If an interruption is in the lower part of the liquid column, the bulb of the thermometer may be cooled in a solution of common salt, ice and water (about –20°C) to bring the mercury down into an enlargement of the bore or finally into the bulb. Moderate tapping of the bulb on a paper pad, inside of the hand, or the application of centrifugal force usually serves to unite the mercury in the bulb. If the salt solution does not provide sufficient cooling carbon dioxide snow (dry ice about –78°C) may be used. Since mercury freezes at about –38°C, it will cause the mercury to solidify. Care must be taken to warm at first the top of the bulb or the enlargement of the capillary tube so that pressures in the bulb due to the expanding mercury may be relieved.

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