



Pressure element, Hartl type

02635.00

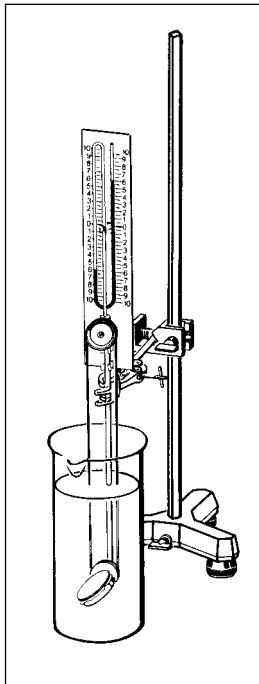
Operating instructions

1 PURPOSE

The Hartl-type pressure element is a pressure element manometer, which can be rotated, for the investigation and measurement of hydrostatic pressure. The device's pressure probe is a rotary pressure element 1, one side of which is covered with a rubber membrane, and a U-tube manometer 3 with scale 4 for measurement. The probe and the manometer are connected by a metal tube 7. To also be able to investigate the directional dependency of the pressure, the pressure element can be rotated by means of a belt 8 which passes around two pulleys 6 and 2. A vent screw 9 allows pressure equilibration.

2 OPERATION

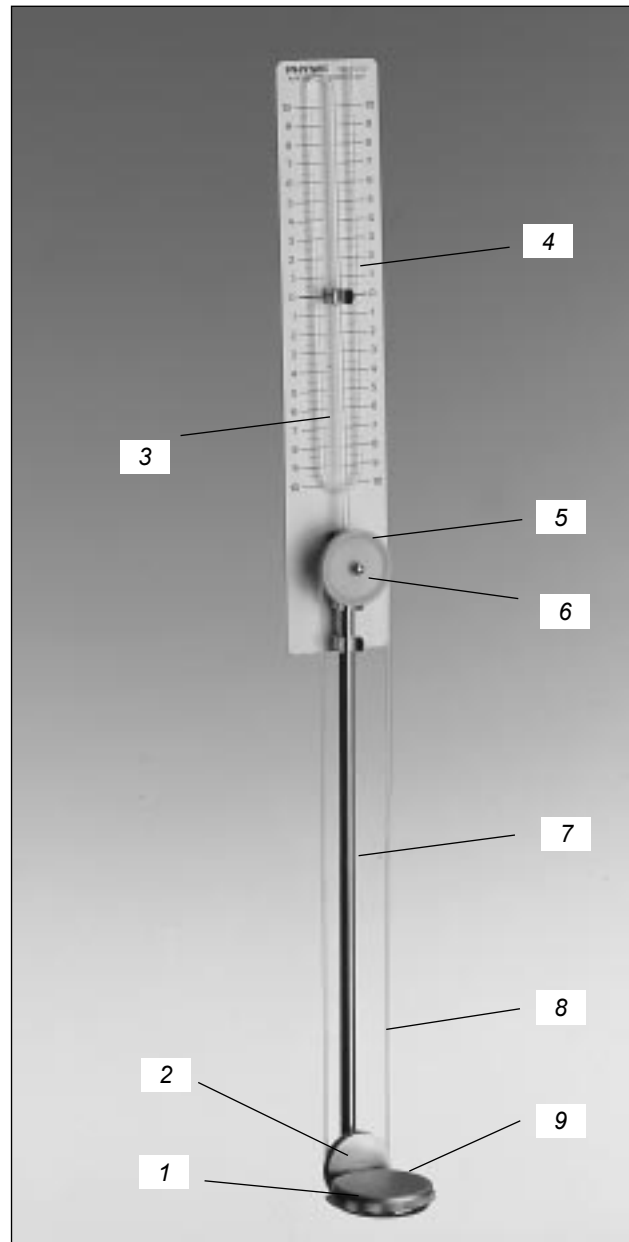
The fill the manometer, a coloured solution (e.g. add some eosin powder to approximately 25 ml of water with the tip of a knife) is easily prepared in a beaker. In addition, is advisable to add a few drops of a commercial detergent to this solution. Fill the U-tube manometer with this solution (most easily done with a dropping bottle) up to about the middle of the limbs. When the manometer is firmly set in the tube 7 with the stopper 5, the vent screw 9 must be opened so that the (slight) overpressure in the tube can equilibrate and the height of the manometer fluid is equal in both legs. The close the pressure element again tightly, so that no water enters during the measurement. Attach the scale 4 to the centre tube of the manometer in such a manner that the zero mark is located at the height of the fluid level.



To perform an experiment, mount the pressure on a support stand by clamping the metal tube 7 in a universal clamp. The immersion depth can be changed by moving the right angle clamp (bosshead) on the support stand. To investigate the directional dependence of the hydrostatic pressure, the probe, which is immersed in a liquid is rotated by means of the pulley 6.

3 LITERATURE INFORMATION

Physik in Demonstrationsversuchen,
Ausgabe C, Part 1 01146.01
Ausgabe A/B, Mechanik 01141.21



4 EQUIPMENT LIST

Pressure element, Hartl type	02635.00
Universal clamp	37715.00
Glass beaker, 2000 ml, tall	36010.00
Dropping bottle, 50 ml, plastic	33920.00
Eosin for microscopy, 25 g	31296.04

5 GUARANTEE INFORMATION

We guarantee this device for a period of 6 months. This guarantee does not cover normal wear or faults which occur due to improper handling. The manufacturer can only then be considered responsible for the function and technical safety characteristics of the device when maintenance, repair and modifications on it have been performed by the manufacturer or by other agents authorised by the manufacturer.