

PHYWE Systeme GmbH & Co. KG
Robert-Bosch-Breite 10
37079 Göttingen
Germany

Tel. +49 (0) 551 604-0
Fax +49 (0) 551 604-107
E-mail info@phywe.de

Operating instructions

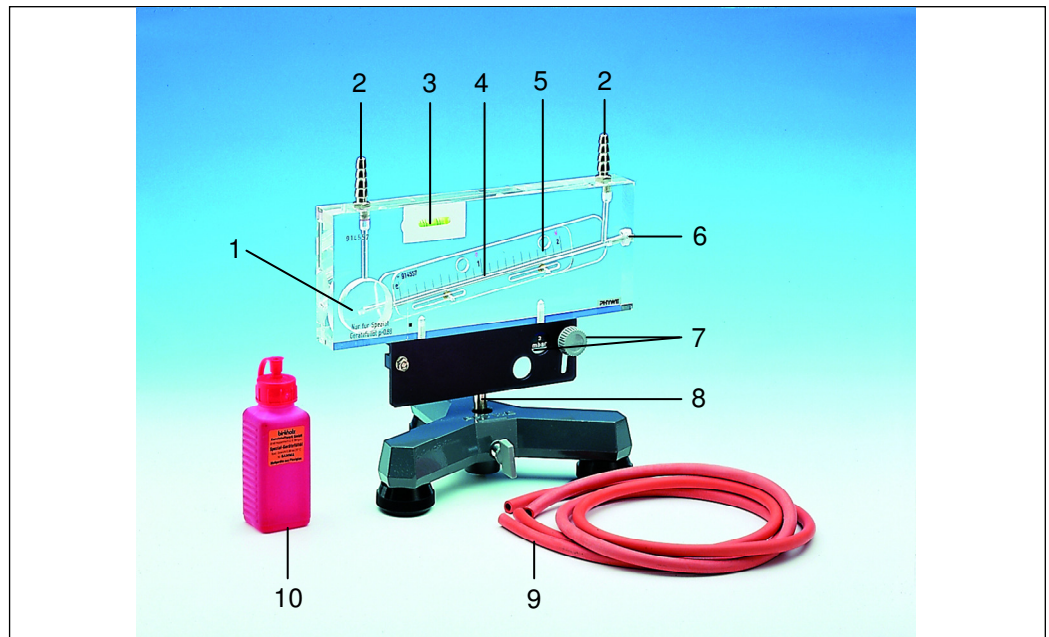


Fig. 1: 03091-00 Precision manometer

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1 SAFETY INSTRUCTIONS



Caution!

- Read the operating instructions thoroughly and completely prior to using this instrument. This is important for your own protection and for avoiding damage to the unit.
- Do not start up this instrument should there be visible signs of damage to it.
- Use the instrument solely for its intended purpose.

2 PURPOSE AND CHARACTERISTICS

The precision manometer is used to measure small pressure differences.

Measuring range 0 ... 2 hPa, division 0.1 hPa
 0 ... 4 hPa, division 0.2 hPa

It can be used for pressure measurements in flowing liquids and for the pressure measurement that is required for the determination of the molar heat capacities C_p and C_v of gases.

3 FUNCTIONAL AND OPERATING ELEMENTS

- 1 Storage tank for oil
- 2 Connecting nozzles, diameter 5 ... 8 mm
- 3 Integrated spirit level
- 4 Measuring tube with an adjustable inclination angle
- 5 Calibrated scale with two-coloured labelling in accordance with the two measuring ranges
- 6 Screw at the upper end of the measuring tube (it can be opened in order to clean the measuring tube)
- 7 Adjustable measuring ranges and locking screw
- 8 Stem for attaching the instrument to a support system
- 9 Rubber tube
- 10 Oil

4 HANDLING

Align the precision manometer absolutely horizontally with the aid of the integrated spirit level. Ensure that the 2 hPa measuring range is selected when doing so.

The 2 hPa or 4 hPa measuring ranges can be selected by inclining the instrument. There are two fixed positions for this purpose. They can be adjusted with the aid of a screw.

Loosen the locking screw and move the scale holder to the upper or lower stop. As a result, the selected measuring range will become visible in the window. Tighten the locking screw in this position.

Fill the manometer with oil until the storage tank is approximately half full. Ensure that air bubbles do not enter the riser tube.

Move the scale until the zero scale mark is located at the meniscus of the liquid surface.

Connect the precision manometer to the measuring equipment by way of flexible tubes.

5 TECHNICAL DATA

Scale length	140 mm
Connecting nozzles	5 ... 8 mm
Measuring ranges	0 ... 2 mbar (0.1 mbar division) 0 ... 4 mbar (0.2 mbar division)
Stem diameter	10 mm
Stem length	60 mm
Dimensions (mm)	250 x 30 x 190

6 SCOPE OF SUPPLY

Oil	04453-00
Rubber tube	39282-00

7 WARRANTY

We give a warranty of 24 months for units that are supplied by us inside the EU, and a warranty of 12 months outside the EU. The following is excluded from the warranty: damage that is due to non-compliance with the operating instructions, improper use, or natural wear.

The manufacturer can only be held liable for the function and safety-relevant properties of the unit, if the maintenance, service, and modifications of the unit are performed by the manufacturer or by an institution that is expressly authorised by the manufacturer.

8 DISPOSAL

The packaging mainly consists of environmentally-friendly materials that should be returned to the local recycling stations.



Do not dispose of this product with normal household waste.

If this unit needs to be disposed of, please return it to the address that is stated below for proper disposal.

PHYWE Systeme GmbH & Co. KG
Customer Service
Robert-Bosch-Breite 10
37079 Göttingen
Germany

Phone +49 (0) 551 604-274
Fax +49 (0) 551 604-246