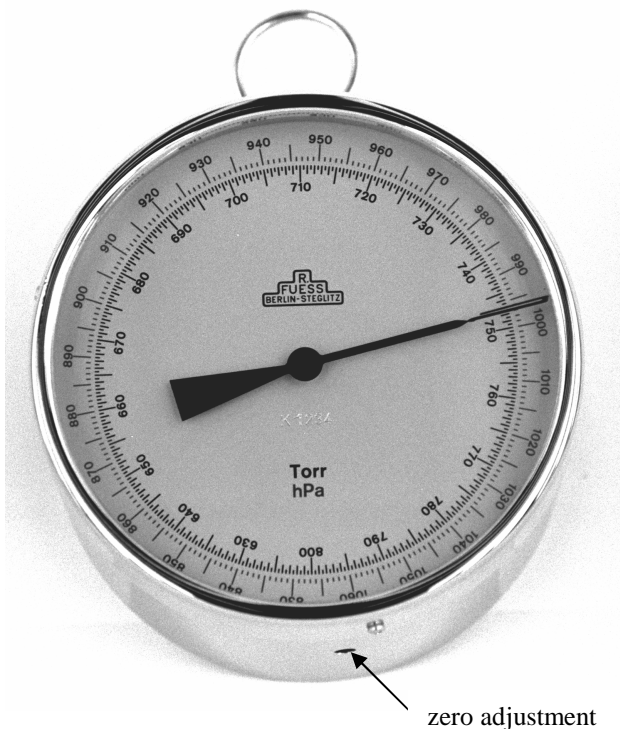


PRECISION ANEROID BAROMETERS



Aneroid barometers are reliable and exact instruments for quick measurement of atmospheric pressure. Their particular advantages, in comparison to the mercury barometers described in leaflet 111,0E, consist in their good suitability for transportation, their slight weight and requirement of space, as well as their insensibility against shock and vibration, so that they are used also, with preference, aboard ships, in aviation, for measurement of altitude in the open country and when travelling. A further advantage is their independence of indication from gravity and temperature, for which reason corrections as required with mercury barometers become unnecessary.

The measuring element of precision aneroid barometers is a set of several aneroid boxes, which, contrary to their own elasticity, are pressed together in a more or less degree by the varying atmospheric pressure. The motion of the set of aneroid boxes is transmitted to the pointer by a gear-mechanism.

The aneroid boxes consist of a special high-grade material of excellent properties of elasticity and, thus, are practically free of hysteresis and elastic after effects. A particular, thoroughly developed bimetallic system effects, independent of the height of atmospheric pressure, an absolute elimination of the influence of temperature so that the respective errors as to indication are avoided. The design of the pointer with edges lying one above the other guarantees parallax-free reading.

Types



Fig. 1
Station aneroid 15ps in
transportcase 15h

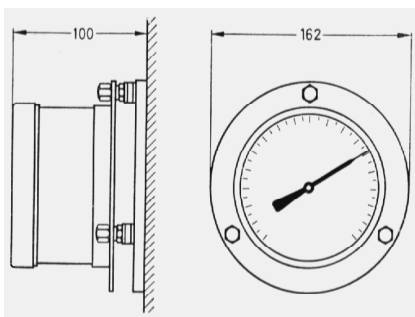


Fig. 2 Ship's aneroid barometer 15 pm
with Vibration damper 15L

Station aneroid barometers **15ps** is supplied in a casing with suspension, as per cover picture.

For portable use, station aneroid barometers can be supplied in transport case 15h, in which the instrument is suspended by means of 8 springs, in an elastic kind of way as per fig. 1. In this case it is provided with a special casing, which eliminates any influence on the measuring system, owing to the forces of the springs. After opening the cover of the casing, reading may be effected. If the station aneroid barometers are to be provided for installation in an instrument desk or mounting on an instrument board, they may be supplied with casing 15r, which is provided with a round-shaped flange-ring of 150 mm diameter, at approximately 20 mm distance from the front.

Ship's aneroid barometer **15pm** is supplied in a casing with base flange of 160 mm diameter, which has three holes for fastening.

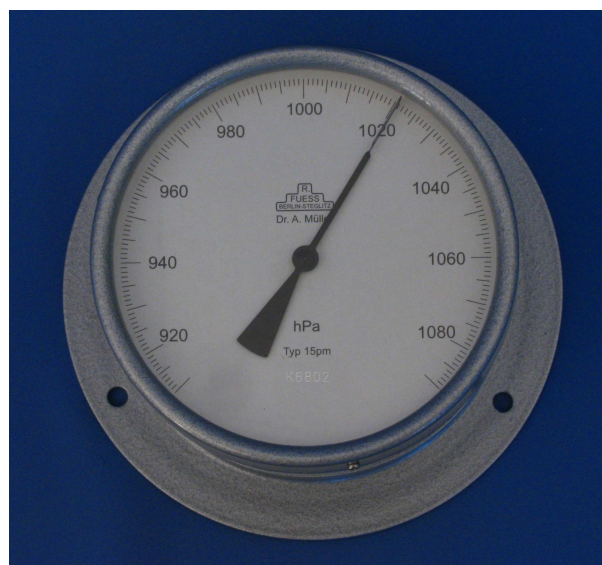


Fig. 3 15pm

In order to avoid damage caused by the motion of the vessel and shaking caused by its propulsion and to obtain a constant position of the pointer, vibration damper 15L may be supplied, additionally, which is fastened to a wall by means of four screws and provided with three vibration damping elements, with the aid of which the instrument of the type described heretofore is fastened as per fig. 2.

Mine aneroid barometer **15pg** is arranged in a springy kind of way on the cover of an everready case as per fig. 3, which is carried on a strap, in front of the chest.



Fig. 4 Mine aneroid barometer 15pg in everready case



Fig. 5: 15p20

The Comparison aneroid barometer **15p20** is supplied in a pressure-tight casing with hose nozzle for connection to a testing receiver or a static pressure sonde. It is provided with a base flange of 160 mm diameter, which has three fastening holes.

On request, all aneroid barometers, with the exception of comparison aneroid barometer 15p20, may be equipped with setting pointer Ba66 UG38 for fixing the read barometric pressure.

Adjusting positions

Station aneroid barometer in casing with suspension, ship's aneroid barometer 15pm, as well as comparison aneroid barometer 15p20, are adjusted with vertically standing scale.

Station aneroid barometers in transport case 15h are adjusted with the scale in horizontal, lying position. In the case of station aneroid barometers in casing 15r, for installation in desks, the requested adjusting position is always to be indicated, when ordering.

As concerns mine aneroid barometer 15pg, the adjusting position is determined by the everready case (appr. 15° inclination from the horizontal).

Requested deviating adjusting positions may be supplied without additional cost. They must be indicated, however, when ordering.

Specifications

No.	Type	Range	Scale division	Pointer deflection
15ps	Station aneroid barometers up to 1500 m height	820 ... 1060 hPa	1 hPa	360°
15p4	Station aneroid barometers up to 4500 m height	560 ... 1060 hPa	2 hPa	360°
15pm(n)	Ship's aneroid barometer	910 ... 1090 hPa	1 hPa	270°
15 pg	Mine aneroid barometer	800 ... 1200 hPa	0,5 hPa	540°
15pg st	Mine aneroid barometer with setting pointer	800 ... 1200 hPa	0,5 hPa	540°
15p20	Comparison aneroid barometers	50 ... 1100 hPa	2 hPa	472,5°

Accuracy : appr. ± 0.2 ... 0.5 intervals of scale

Dimensions : 150 mm diameter x 80 mm height;

Weight : 0.8 kg

Accessories (no extra charge): Factory test certificate;

for station barometers: storing case;
dimensions: 185 x 185 x 110 mm; weight: 0.8 kg;

for mine aneroid barometers: everready case with carrying strap;
dimensions 170 x 200 x 120 mm; weight: 1.2 kg

Supplementary Parts

- 15h** Transport case with hand-grip for portable use;
dimensions: 225 x 225 x 140 mm; weight: 2.3 kg.
- Ba66 BG20** Casing for installation in instrument board or desk.
(=No.15r)
- 15L** Vibration damper for ship's aneroid barometers.
- Ba66 UG38** Setting pointer for aneroid barometers.
(=No.15e)

Further Instruments for Measuring Atmospheric Pressure

- Mercury Barometers see Leaflet **111,0**
- Aneroid Barographs see Leaflet **113,0**
- Microbarographs see Leaflet **113,1**
- Digital Barometer DB278 D / DB278 D2 / DB278 D3 / DB204 ABS

DR. ALFRED MÜLLER
METEOROLOGISCHE INSTRUMENTE KG
Chausseestraße 39 / 42c
D-15712 Königs Wusterhausen

Tel.: +49 3375 9025-32
FAX: +49 3375 9025-36
e-mail: dr.a.mueller-r.fuess@t-online.de
www.rfuess-mueller.de