

Portable system for comparison measurements of water meters

Metrological authority of respective country is to ensure calibration sheet of supplied verified transfer water meter (Schlumberger) on the testing equipment of national standard – the country's standard of the highest order.

Portable system intended for the comparison measurements of residential water meters is built in the portable transport case.

The procedure of comparison measurement

Remove outlet tube of one of residential water taps and replace it with hose connection of transfer water meter (Schlumberger) - placed in the case, using respective reducers.

Place outlet hose of transfer water meter into the basin (or bathtub) to secure the outflow. Fill the assemble with water by draining-off approx. 10 to 15 L of water through respective water tap as follows – open the ball cock, then open the valve – water tap to full flowrate and after approx. 10 seconds slowly close ball cock after Schlumberger water meter. Thus the system is deaerated.

Check whether all points of offtake - valves in the whole flat (including toilet) are closed – to ensure zero offtake.

Note down the instantaneous value of the indication of the water meter installed in the flat – the one which is the subject of the comparison.

Note down the instantaneous value of the indication of transfer water meter (Schlumberger).

Start comparison process by opening the ball cock after transfer water meter.



Flowrate at which the comparison takes place and testing amount including the method of evaluation are to be stated by metrological authority.

Transport case is made of thick plywood, Al profiles with eloxal coating to STN 42 4401.71 standard. The interior of the case is upholstered, with 4 built-in screws for the holder for the attachment of the comparison system, clamps for inlet and drain hoses. On the lid of the case are fastened 3 bags for replaceable reducers for water taps, gaskets and tools.

Comparison system is fixed on the bottom of the case. It consists of DAUPHIN-Schlumberger transfer meter – volumetric water meter, Qn 1.5; L = 110, accuracy class D for warm water to 90 °C with readability to 0.02 L.

The meter is equipped with pressure hose at the inlet. At the end of the pressure hose is a set of replaceable reducers for water taps. The end of the pressure hose is fitted with the plug to eliminate flowing of the water out of the system. At the outlet the meter is equipped with shut-off ball cock connected via quick-clamp to discharge hose which may be attached to the bathtub, basin and the like.

The discharge hose is fitted with ball shut-off to eliminate flowing of the water out of the system.