

Test Bench Data in Test Station KA9:

The test bench comprises 10 m³ of water.
Cold measurements are carried out at 20 °C.
Time required to heat from 20°C to 55°C: approx. 24 h
Time required to cool down from 55°C to 20°C: approx. 15 h
Approx. 2 m³/h are circulated in stage 3.

Test Bench Limit Values in Test Station KA9:

The test station can accredit:

- 1.) Compact heat meters with exchangeable temperature sensors.
- 2.) Partial devices of heat meters, i.e.
 - a. Hydraulic transducers
 - b. Electronic calculation units without temperature sensors
- 3.) Devices for the heat carrier water
- 4.) Hydraulic transducers for:
 - a. Dynamic pressure difference measuring method
 - b. Calculation units of impeller counters or Woltmann meters
 - c. Ultrasonic measuring method
- 5.) for devices with the limit values:
 - a. Nominal flow Q_n of 5 m³/h to 450 m³/h
 - b. Smallest flow ≥ 0.100 m³/h
(Q_{min} or q_i)
 - c. Temperature range
 - for hydr. transducers up to 165 °C
 - for calculation units from 10 °C to 180 °C
 - c. Temperature difference: from 3 K to 120 K
- 6.) for flow sensors according to EN 1434, accuracy class 2 and 3
(requirements of numbers 1 - 5 have to be adhered to)

Capacities of hydraulic transducers are restricted to devices with specified test temperatures of less than 80 °C.

The test bench accuracy is:

when testing with working standard	MID	<	0.6 %
when testing with control standard	Scales	<	0.2 %

Table 1 shows the testable installation dimensions:

DN (PN 16 / 25 / 40)	L [mm] for flange devices	L [mm] for EN 1434 flange devices	L [mm] for intermediate flange devices
15	300	-	65
20	300	-	65
25	300	-	65
32	300	260	65
40	300	300	65
50	300	300	65
65	300	300	65
80	300	350	65
100	350	350	65
125	400	350	65
150	500	500	-
200	-	500	-
250	-	600	-