Calculation and Selection of Heat Meter

Initial data

7.00 m3/h	Estimated water flow rate	**100 °C**	Maximum water temperature at the flow meter installation place

Calculation results

Qmin 0.150 < 7.00 [m3/h] < Qn 15.0

Estimated water flow in the measuring range of the flow meter

10 [kPa] *(7.00 [m3/h] / 15.0 [m3/h])^2 = 2.18 [kPa]

Pressure loss across the flow meter at estimated flow rate

[7.00 m3/h] / {3600 *3.14 *([DN50 FL] *0.001)^2 *0.25} = = 1.0 [m/s]

The flow rate is within normal limits V < 3.0[m/s]

Selection result : Heat meter

Landis Gyr : Ultraheat UH50

Germany

Qmax 30.0 [m3/h]	Maximum flow rate
Qn 15.0 [m3/h]	**Nominal flow rate**
Qmin 0.150 [m3/h]	Minimum flow rate
Class : 2	Accuracy class according to EN 1434-1
dT 3 ... 120°C	The temperature difference that ensures the measurement accuracy of the corresponding class
ultrasonic	Type of flow meter
DN 50 FL [mm]	Nominal diameter of the flow meter
PN 25/16 [bar]	Nominal pressure of the flow meter
T 5 ... 150°C	Permissible water temperatures for the flow meter
dP 10 [kPa]	Pressure loss across the flow meter at nominal flow rate QN15.0 [m3/h]
Pt500	Type of temperature sensor
T 0 ... 150°C	Permissible water temperatures for the temperature sensors

Qmin	Q	Qn	Qmax
0.150	**7.00**	15.0	30.0
m3/h	**m3/h**	m3/h	m3/h