WasserGeräte
Internationaler Hersteller von Wasserzählern

Ultrasonic heat meter VoluMess VI

- Detection of back flow and air
- High temperature resistant for district heating
- Measuring cycle temperature, dynamic: 2 / 60 s
- Detachable calculator unit:
  85 cm pulse cable length (2.85 m optional)

Communication interfaces:

wireless M-Bus
wireless M-Bus + 3 pulse inputs
M-Bus
M-Bus + 3 pulse inputs
1 pulse output
2 pulse outputs
LoRa

CE Impuls M-Bus MID DVGW MITGLIEDS-UNTERNEHMEN

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Technical data:

Flow sensor

Measuring method			ultrasonic; time-of-flight									
Sizes	Nominal flow q_p	m³/h	0.6	0.6	1.5	1.5	2.5	2.5	3.5	3.5	6.0	10.0
	Low flow threshold	l/h	6	6	6	6	12	12	14	14	30	50
	Minimum flow q_i	l/h	12	12	12	12	25	25	28	28	60	100
	Maximum flow q_s	m³/h	1.2	1.2	3.0	3.0	5.0	5.0	7.0	7.0	12.0	20
Pressure drop Δp at q_p		bar	0.03	0.03	0.21	0.04	0.12	0.12	0.21	0.21	0.20	0.11
Pressure drop Δp at q_s		bar	0.13	0.13	0.85	0.17	0.46	0.46	0.89	0.89	0.80	0.43
Nominal diameter		mm	DN 15	DN20	DN15	DN20	DN 20	DN 25	DN 20	DN 25	DN 25	DN 40
Thread		inch	G3/4B	G1B	G3/4B	G1B	G1B	G1 1/4B	G1B	G1 1/4B	G1 1/4B	G2B
Length		mm	110	190	110	105; 130; 190	105; 130; 190	260	130; 190	150; 260	150; 260	200; 300
Dynamic range q_i/q_p		-	1:50	1:50	1:125	1:125	1:100	1:100	1:125	1:125	1:100	1:100

Accuracy class (MID)		class 2
Nominal pressure PN	bar	16
Temperature range medium heat	°C	15 – 90 15 – 130 high temperature (150; for maximal 2000 h) (optional)
Temperature range medium cooling (q_p 1,5 to q_p 10)	°C	5 – 50
Temperature range medium heat / cooling	°C	15 – 90 heat 15 – 120 high temperature (optional) 5 – 50 cooling
Point of installation		outlet flow and inlet flow; can be set when the amount of energy is still ≤ 10 kWh
Mounting position		any position
Protection class		IP65

Calculator unit

Temperature range medium	°C	0 – 150 heat 0 – 50 cooling (from q_p 1.5 to q_p 10)
Ambient temperature in the field	°C	5 – 55 at 95 % rH relative humidity
Transport temperature	°C	-25 – 70 (for maximal 168 h)
Storage temperature	°C	-25 – 55
Temperature difference range ΔΘ heat	K	3 – 100
Temperature difference range ΔΘ cooling	K	-3 – -50
Minimum temperature difference ΔΘ heat	K	> 0.05
Minimum temperature difference ΔΘ cooling	K	< -0.05
Minimum temperature difference ΔΘ HC heat / cooling	K	> 0.5 / < -0.5
Resolution temperature	°C	0.01
Measuring cycle temperature; dynamic	s	2 / 60; using a power pack: 2 s permanent
Measuring cycle flow	s	2
Display		LCD - 8 digits + special characters
Decimal places		up to 3 after comma
Units		MWh, kW, m³, m³/h (kWh, GJ, MMBTU, Gcal); unit of energy can be set wh the amount of energy is still ≤ 10 kWh

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Interfaces		optical interface (M-Bus protocol); optional: wireless M-Bus; wireless M-Bus + 3 pulse inputs; M-Bus; M-Bus + 3 pulse inputs; 1 pulse output; 2 pulse outputs; LoRa
Power supply		exchangeable 3 V lithium battery; all types prepared for 3 V power pack (input voltage 230 V / 24 V)
Estimated lifetime	years	10 (no option: 1 pulse output); 6+1
Data storage		nonvolatile memory
Reading dates		selectable yearly reading date; 15 monthly and semimonthly values: via display or wireless M-Bus (compact mode); 24 monthly and semimonthly values: via optical interface or M-Bus
2 tariff registers		can be set individually; adding up energy or time
Storage of maximum values		flow, power and temperatures (inlet, outlet, ΔΘ), plus the respective maximum values of the last 15 months
Protection class		IP65
CE		yes
EMC		EN 1434
Temperature sensors (2-wire technique)		
Platinum precision resistor		Pt 1000
Diameter	mm	5; 5,2; 6; AGFW 27,5; 38; needle sensor 3.5 x 75
Length of cable	m	1,5; 3; 6
Installation		asymmetrical; symmetrical
Dimensions calculator unit		
Calculator housing (H x W x D)	mm	75 x 110 x 34.5

Dimensions meter

Qp (m³/h)	Nominal diameter	G (")	L (mm)	H (mm)	A (mm)	Weight (basic version in kg)
0.6	DN 15	G¾B	110	65	38.5	0.600
0.6	DN 20	G1B	190	65	38.5	0.770
1.5	DN 15	G¾B	110	65	38.5	0.600
1.5	DN 20	G1B	105	66	39.5	0.650
1.5	DN 20	G1B	130	66	339.5	0.680
1.5	DN 20	G1B	190	65	38.5	0.770
2.5	DN 20	G1B	105	66	39.5	0.650
2.5	DN 20	G1B	130	66	39.5	0.680
2.5	DN 20	G1B	190	66	39.5	0.790
2.5	DN 25	G1 ¼B	260	66	39.5	1.080
3.5	DN 20	G1B	130	66	39.5	0.680
3.5	DN 20	G1B	190	66	39.5	0.790
3.5	DN 25	G1 ¼B	150	66	339.5	0.820
3.5	DN 25	G1 ¼B	260	66	39.5	1.080
6.0	DN 25	G1 ¼B	150	68,5	42	0.820
6.0	DN 25	G1 ¼B	260	68,5	42	1.080
10.0	DN 40	G2B	200	73	46.5	1.530
10.0	DN 40	G2B	300	73	46.5	1.970

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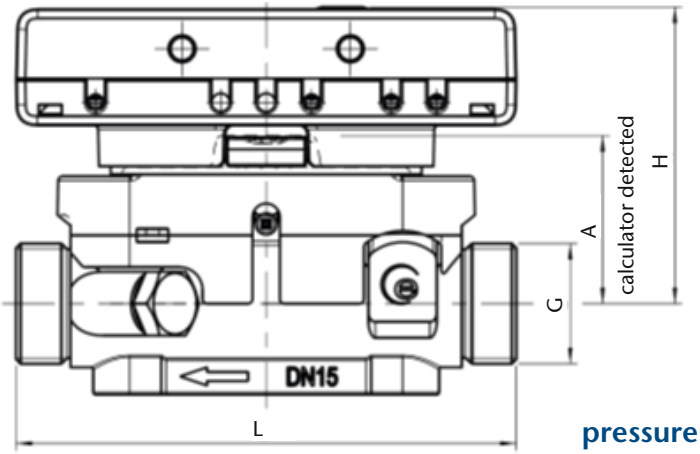
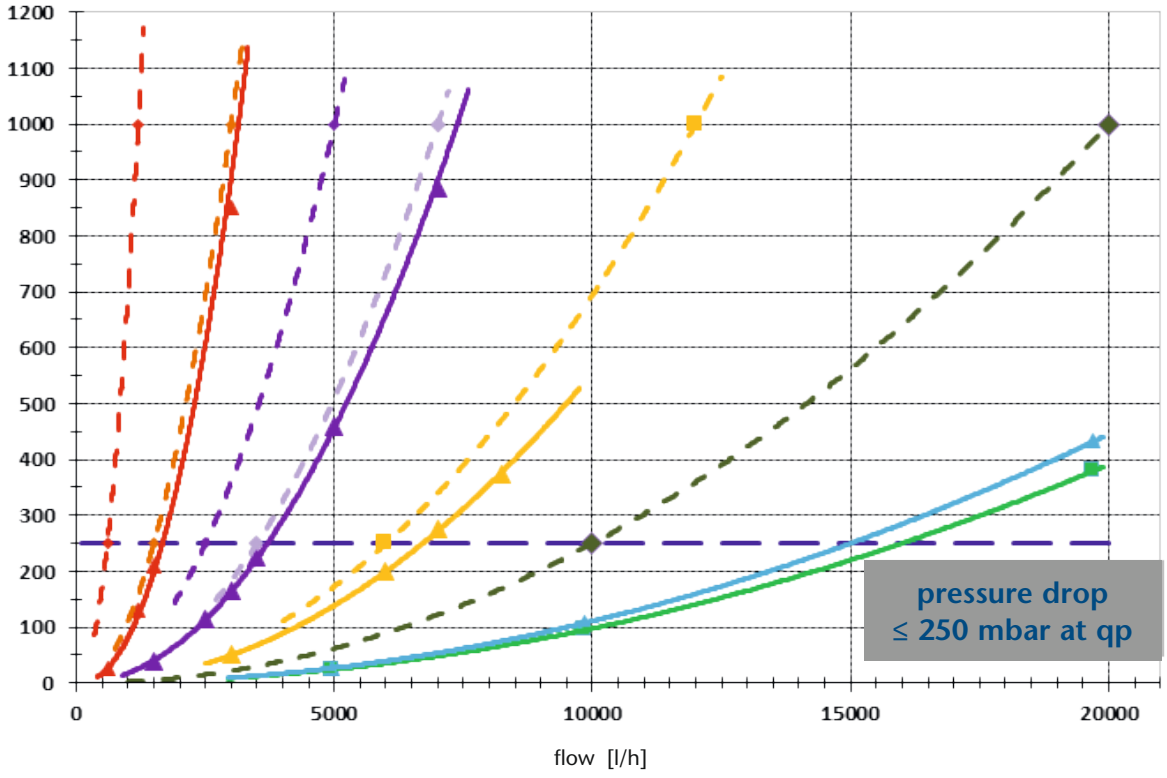


pressure drop VoluMess VI-U

pressure drop [mbar]



- EN1434 Limit qp0,6
- EN1434 Limit qp1,5
- EN1434 Limit qp2,5
- EN1434 Limit qp3,5
- EN1434 Limit qp6,0
- EN 1434 Limit qp10
- pressure drop qp 0,6 / 1,5
- pressure drop qp 2,5 / 3,5 / 1,5 (DN20)
- pressure drop qp 6,0
- pressure drop qp 10 200 mm
- pressure drop qp 10 300 mm
- EN 1434

Subject to technical modifications | as of April 2021

Wasser-Geräte GmbH
Max-Planck-Straße 20
78549 Spaichingen
Telefon +49 (0) 74 24 / 95 99-0
Telefax +49 (0) 74 24 / 95 99-20
www.wasser-geraete.de
info@wasser-geraete.de