



Heat Meter - single jet flow VoluMess VI comfort version

- Detection of back flow
- Measuring cycle temperature, dynamic: 2 / 60 s
- Outlet flow and inlet flow can be set on site
- Detachable calculator unit, pulse cable length 50 cm (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





Technical data:

Flow sensor

Measuring method		bidirectional inductive scanning system				
Sizes	Nominal flow q_p	m ³ /h	0.6	1.5	1.5	2.5
	Low flow threshold	horizontal	3.5 l/h	7.0 l/h	7.0 l/h	10.0 l/h
		vertical	4.0 l/h	7.0 l/h	7.0 l/h	10.0 l/h
	Minimum flow q_i	l/h	24	60	60	100
	Maximum flow q_s	m ³ /h	1.2	3.0	3.0	5.0
	Pressure drop Δp at q_p	bar	0.155	0.210	0.225	0.165
	Pressure drop Δp at q_s	bar	0.660	0.840	0.910	0.675
	Nominal diameter	mm	DN 15	DN 15	DN 20	DN 20
	Thread	inch	G $\frac{3}{4}$ B	G $\frac{3}{4}$ B	G1B	G1B
	Length	mm	110	110	130	130
	Dynamic range q_i/q_p		1:25	1:25	1:25	1:25
	Accuracy class (MID)		class 3			
	Nominal pressure PN	bar	16			
	Temperature range medium heat	°C	15 – 90			
	Temperature range medium cooling (q_p 1.5 (DN 15) and q_p 2.5)	°C	5 – 50			
	Point of installation		outlet flow and inlet flow; can be set when the amount of energy is still \leq 10 kWh			
	Mounting position		horizontal / vertical			
	Protection class		IP65			
	Medium		water; optional, without approval*: water with a propylene glycol or ethylene glycol percentage rate of 20 %, 30 %, 40 % or 50 % (* type and concentration of glycol can be set at any time)			

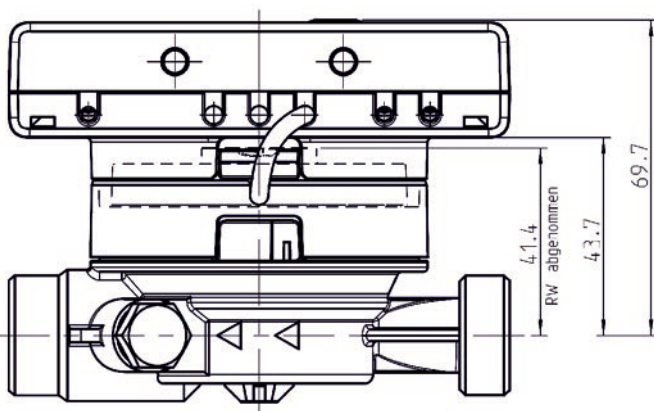
Calculator unit

Temperature range medium heat	°C	0 – 150
Temperature range medium cooling (q_p 1.5 (DN 15) and q_p 2.5)	°C	0 – 50
Ambient temperature in the field	°C	5 – 55 at 95 % relative humidity
Transport temperature	°C	-25 – 70 (for maximal 168 h)
Storage temperature	°C	-25 – 55
Temperature difference range $\Delta\theta$ heat	K	3 – 100
Temperature difference range $\Delta\theta$ cooling	K	-3 – -50
Minimum temperature difference $\Delta\theta$ heat	K	> 0.05
Minimum temperature difference $\Delta\theta$ cooling	K	< -0.05
Minimum temperature difference $\Delta\theta$ 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
Display		LCD - 8 digits + special characters
Decimal places		up to 3 after comma
Units		MWh, kW, m ³ , m ³ /h (kWh, GJ, MMBTU, Gcal); unit of energy can be set when the amount of energy is still \leq 10 kWh
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, $\Delta\Theta$), 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
Weights		
Weight (basic version)	kg	q_p 0.6 / q_p 1.5 (DN 15) q_p 1.5 (DN 20) / q_p 2,5
Calculator detachable		0.840 0.880
Dimensions		
Pulse cable length (only separable version)	m	0.50
Calculator housing (H x W x D)	mm	75 x 110 x 34.5
Thread		G $\frac{3}{4}$ ", DN 15: q_p 0.6 / q_p 1.5 G1", DN 20: q_p 1.5 / q_p 2.5





pressure drop [mbar]

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