Data sheet

LD5QUHEGB0 55RVZ01-A / 20.02.2025 /

Heat meter Q heat 5.5 R
Screw-type meter

MID-compliant compact heat meter

- Flow sensor in all-metal design with nominal flow rate q_p 0.6-2.5 m³/h
- Integrated radio technology for integration into a Q walk-by or Q AMR system
- Flexibility by changing the flow and return as well as the energy unit
- Short and static temperature measurement cycle
- Compact design and detachable calculator unit

Application

The measuring device is used to record thermal energy. The main areas of application are supply systems with a central heat circuit in which only water is used as the energy medium.

Features

- Flow sensor in all-metal design with nominal flow Q_p 0.6 m³/h ... 2.5 m³/h
- Radio data transmission by sending Q AMR- and Q walk-by telegrams in C-mode as standard
- Optional only with Q AMR telegrams or Q AMR extended telegrams[1] available for system optimization
- For secure data transmission optionally with AES encryption mode 5 and mode 7 available
- Flexibility during commissioning by switching the return and supply flow without exchanging the temperature sensors as well as changing the energy unit
- Standard ort and static temperature measurement cycle every 36 seconds (with 10 year battery) - ideal for use in central supply facilities
- Compact design and detachable calculator unit as standard for tight and difficult-to-access installation situations

Technical data

General	
CE	QUNDIS GmbH hereby declares that the heat meter Q heat 5.5 R complies with directives 2014/53/EU (RED), 2011/65/EU (RoHS) and 2014/32/EU (MID). The full text of the EU Declaration of Conformity is available at the following Internet address: https://qundis.com/service/downloads-and-information/eu-declaration-of-conformity/#qr01
Ambient conditions	
Protection rating	Calculator unit: IP65 according to EN 60529 Flow sensor: IP65 according to EN 60529
Transport	-25 °C ... 70 °C, < 95 % r.F. (without condensation)
Storage	-5 °C ... 45 °C, < 95 % r.F. (without condensation)
Usage	5 °C ... 55 °C, < 95 % r.F. (without condensation)
Medium	Only use water without chemical additives as the medium for this device. Operation with glycol and other media except water takes place outside the Measuring Instruments Directive.
Standards	
Interference resistance and interference emission	EN 301 489-1, EN 301 489-3
Security	EN 62368-1 , EN 62479
Quality of the heating medium	according to VDI guideline 2035, AGFW standard 510
Influencing quantities	
Electromagnetic class	E1
Mechanical class	M2
Ambient class	A
Measuring accuracy class	3

[1] Q AMR telegram extended by current flow temperature, current return temperature, current volume flow and current output

Calculator unit Temperature range	
as heat meter	10 °C ... 105 °C
as heat meter with cooling option[2]	10 °C ... 105 °C

Calculator unit Temperature difference range	
as heat meter	3 K ... 70 K
as heat meter with cooling option	3 K ... 70 K
as cold meter	3 K ... 50 K
start of metering temperature difference	0.2 K

Power supply	
Lithium battery	Nominal voltage 3.0 V
Lithium content	0.86 g
Battery type	CR17450E-R
Batteries per device	1 (not replaceable)
Battery life	7 (optional 10) years

Display levels	
Display	8-digit LCD + pictograms
Display consumption value	kWh - MWh MJ - GJ kWh - MJ (only up to 50 litres cumulative flow rate) MWh - GJ (only up to 50 litres cumulative flow rate)

Cable length Calculator unit - Flow sensor	
Cable length	40 cm

Technical data Communication

Radio technology	
Radio mode	C-Mode (Q AMR, Q walk-by)
Radio frequency	EN 300 220-2 C-Mode (868.95 +/- 0.25) MHz
Transmission power	C-Mode (max. 14 dBm / typ. 10 dBm)
Encryption[3]	Security Mode 5 and 7 according to EN 13757-7, Security Profile A and B according to OMS specification
Duty cycle	< 0.1 % (50 ms/128 s)
Data transmission	EN 13757-4

[2] Cold register not assessed for conformity. National regulations must be observed.
[3] Encryption optional

Technical data Temperature sensor

Temperature sensor	
Measuring element	Pt1000 according to EN 60751
Version	Type DS
Diameter Ø	5.0 mm - 5.2 mm - 6.0 mm - AGFW
Installation variant[4]	5.0 mm - direct (Ball valve) / indirect (Immersion sleeve) 5.2 mm - direct (Ball valve) / indirect (Immersion sleeve) 6.0 mm - direct (Ball valve) / indirect (Immersion sleeve) AGFW - direct (Ball valve)
Cable length	Standard: 1.5 m Optional: 3.0 m

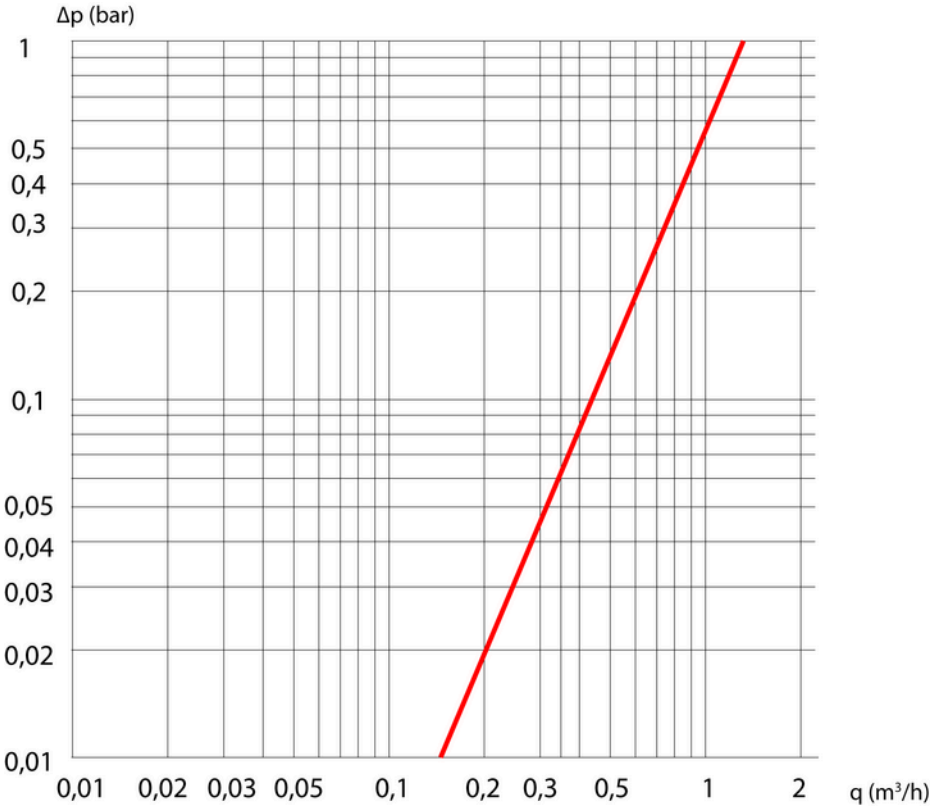
Technical data Flow sensor

Nominal flow rate q_p	0.6 m³/h	1.5 m³/h	1.5 m³/h	2.5 m³/h
Nominal diameter DN	15 mm	15 mm	15 mm	25 mm
Overall length	110 mm	80 mm	110 mm	130 mm
Connection	G $^3/_4$ B	G $^3/_4$ B	G $^3/_4$ B	G 1 B
Weight compact	668 g	575 g	650 g	743 g
Weight detachable	820 g	709 g	802 g	895 g
Installation location	Return flow or supply flow (switchable up to 50 litres cumulative flow)			
Installation position	horizontal/vertical			
Inflow and outflow zone	not required (U0/D0)			
Minimum flow q_i	24 l/h	30 l/h	30 l/h	50 l/h
Maximum flow q_s	1200 l/h	3000 l/h	3000 l/h	5000 l/h
Start-up limit q_0	3 ... 4 l/h	4 ... 5 l/h	4 ... 5 l/h	6 ... 7 l/h
Dynamic range	1:25		1:50	
Max. permissible operating pressure	16 bar			
Min. system pressure to avoid cavitation[5]	1.1 bar	1.1 bar	1.3 bar	1.1 bar
Temperature range	10 °C ... 90 °C			

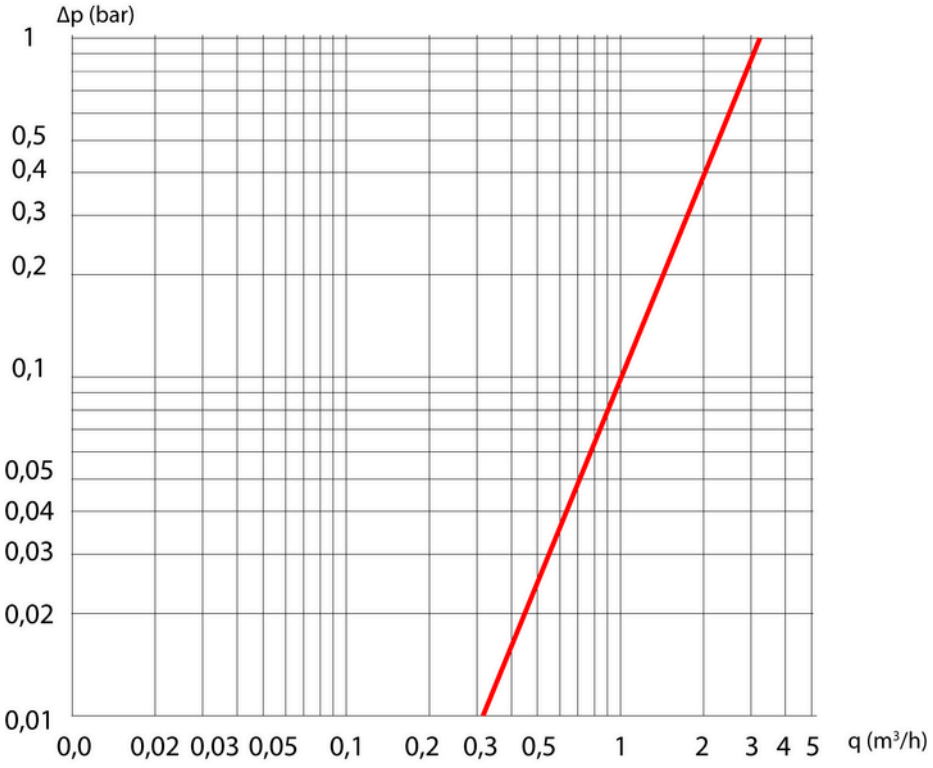
[4] Observe national and country-specific regulations on the use of immersion sleeves!
[5] cavity formation in fast flowing liquids

Pressure loss curves

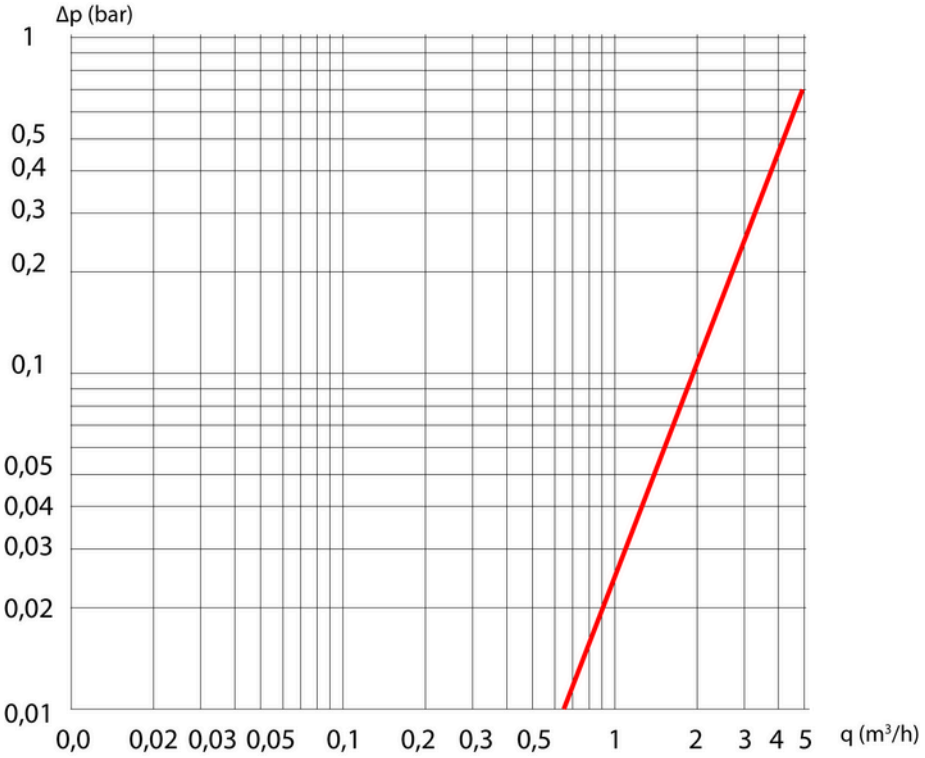
HMx5x, q_p 0.6 m³/h, 110 mm



HMx5x, q_p 1.5 m³/h, 110 mm

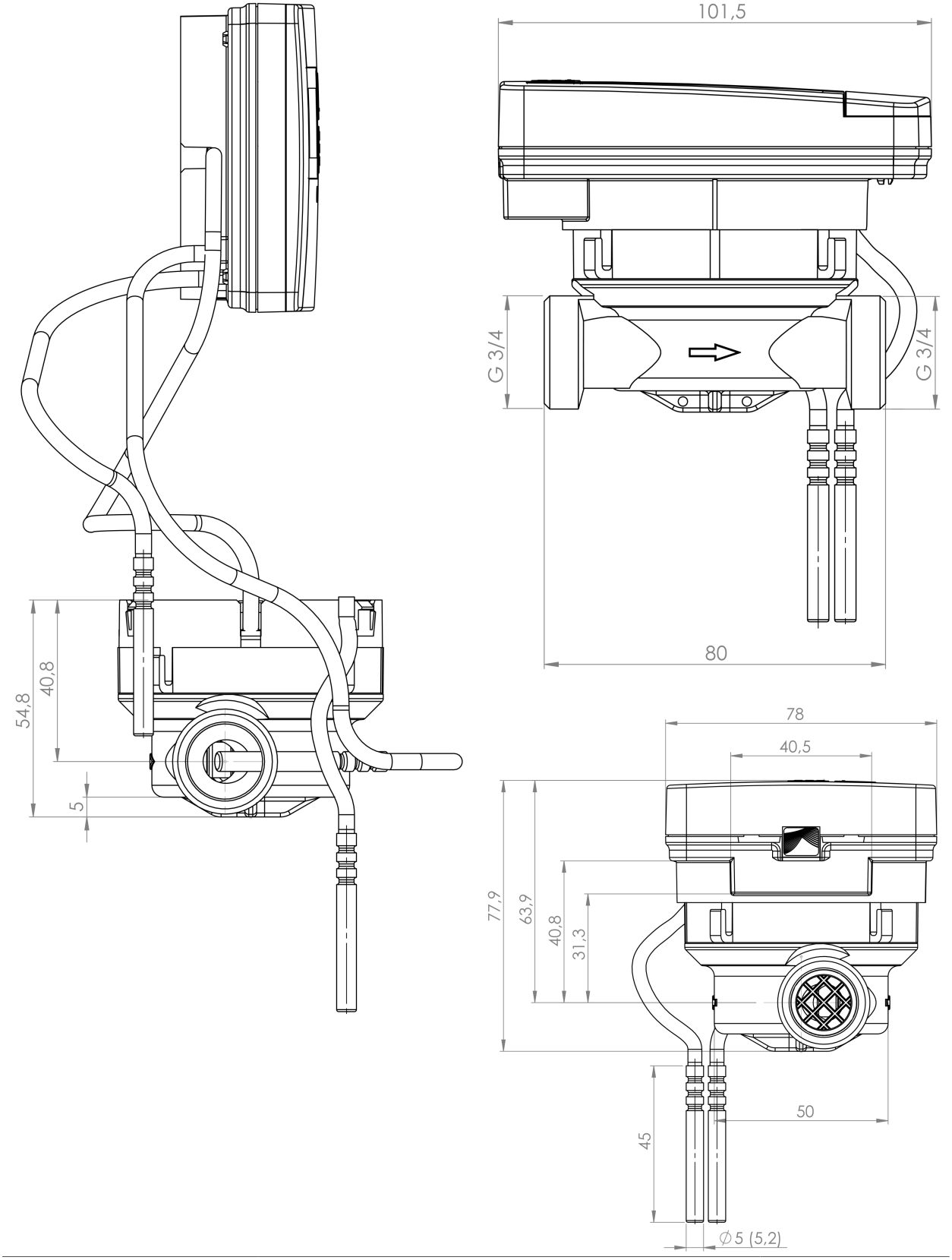


HMx5x, q_p 2.5 m³/h, 130 mm

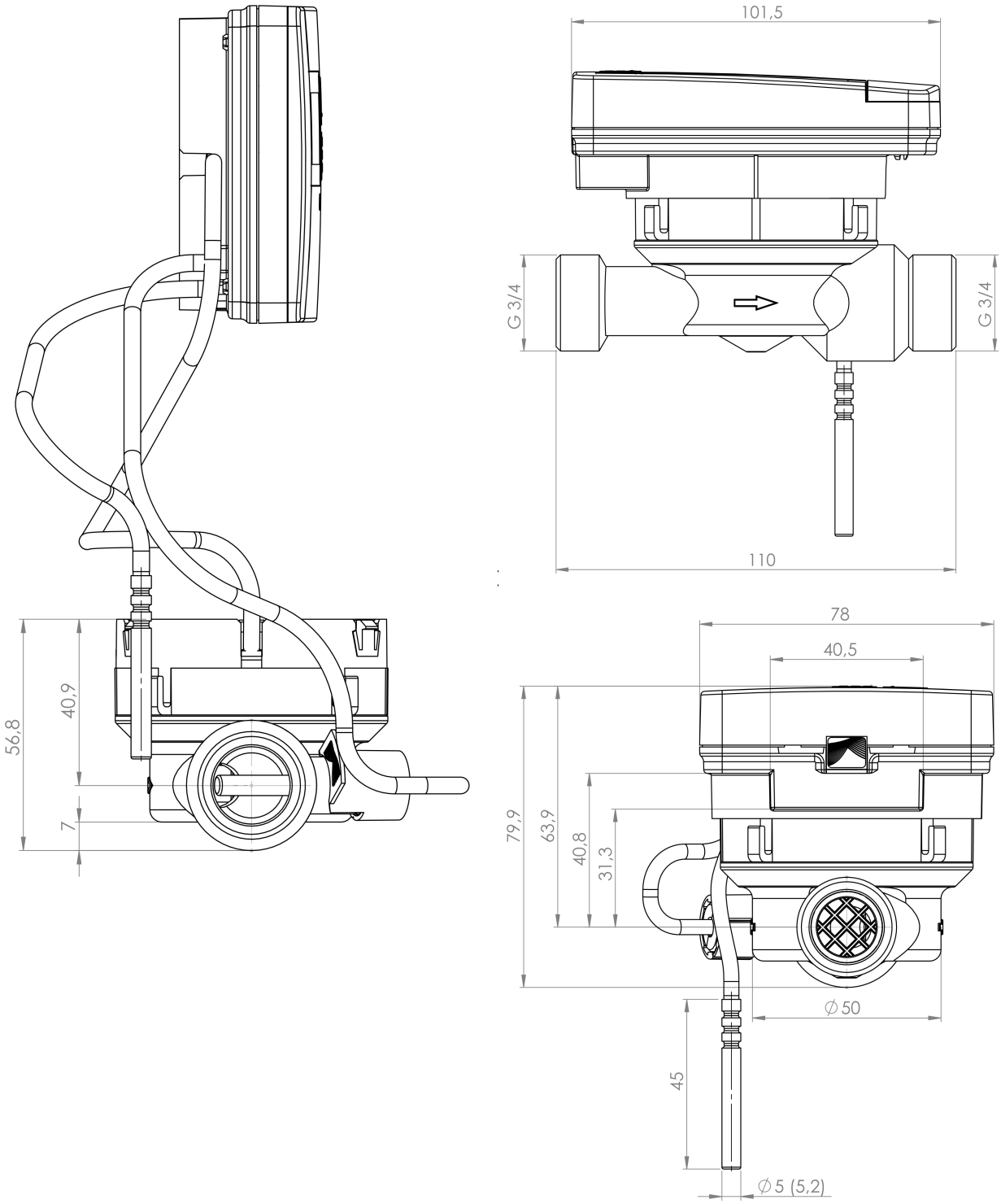


Dimensional drawings

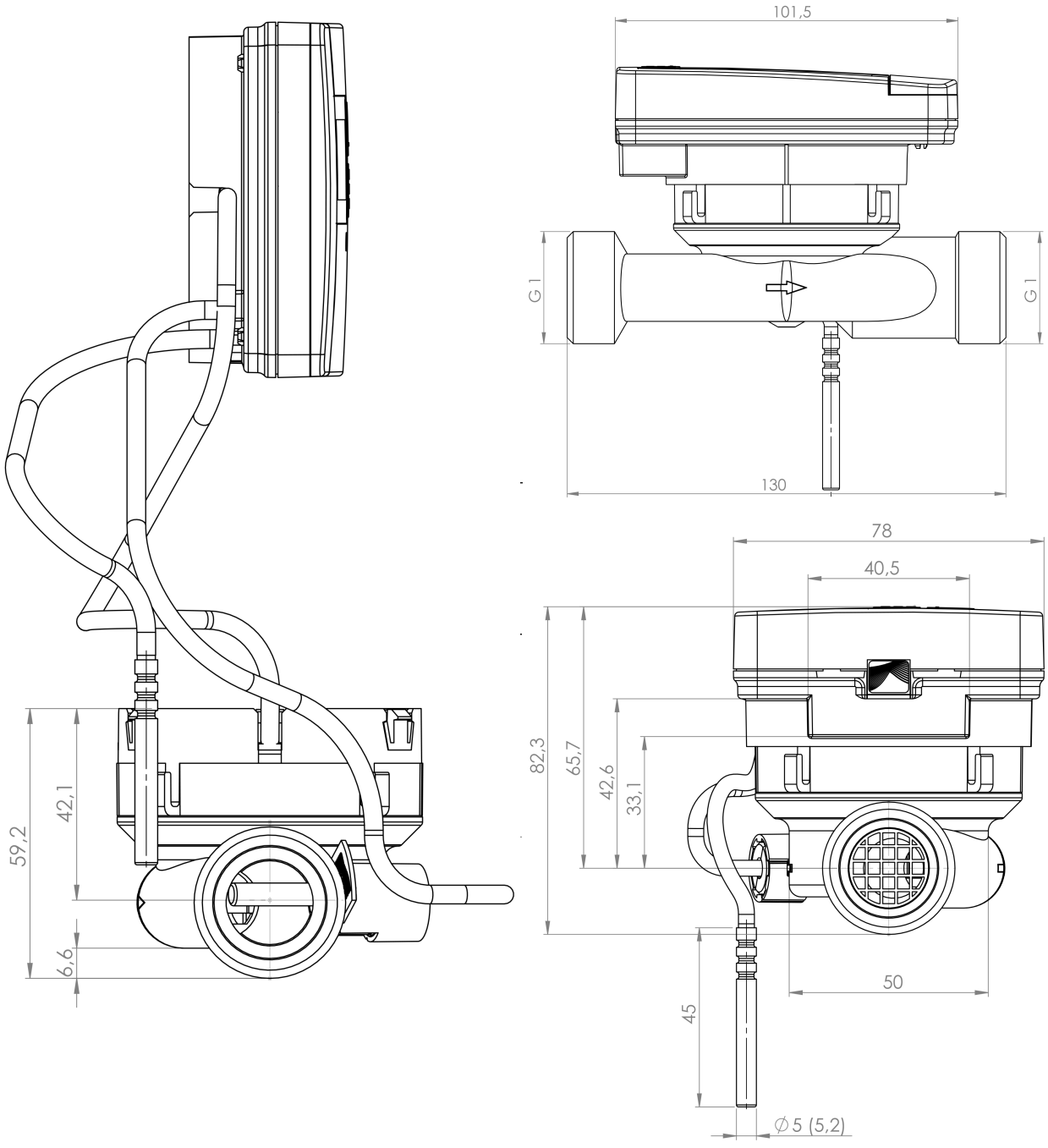
Installation length 80 mm - Thread 3/4 inch - (1.5 m³/h)



Installation length 110 mm - Thread 3/4 inch - (0.6 m³/h and 1.5 m³/h)



Installation length 130 mm - Thread 1 inch - (2.5 m³/h)



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