

Technical Datasheet

sonsonic II



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1 Technical data

Place of installation (see type plate)

	Flow	Return
Heat meters	warmer string	Colder string
Combined heat/cold meters	warmer string	Colder string
Cold meters	Colder string	warmer string

Nominal flow q_p 0,6 / 1,5 / 2,5 (acc. rating plate)

Ambient conditions to EN 1434

- Mechanical: M2
- Electromagnetic: E1

Approved fluid Water

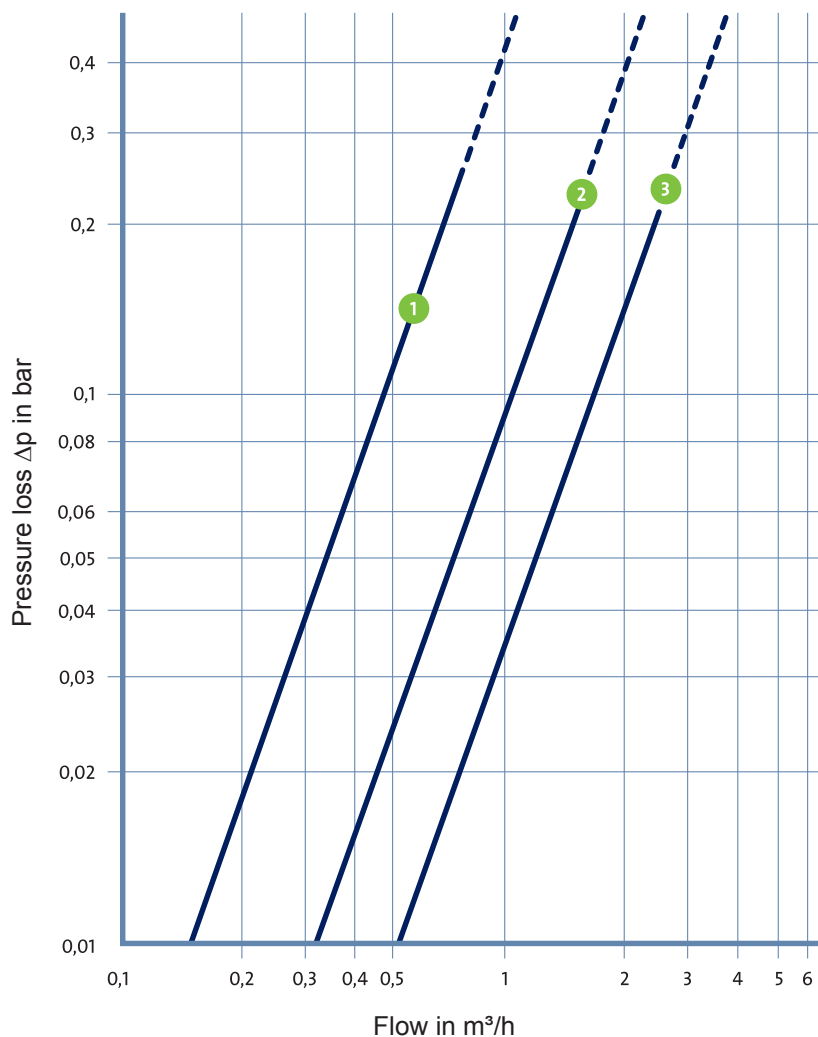
q_p / q_i

- asymmetric: 25
- symmetric: 50

Pressure loss at q_p in combination with EAS Rp 3/4

- q_p 0.6: $\Delta p = 0.16$ bar
- q_p 1.5: $\Delta p = 0.22$ bar
- q_p 2.5: $\Delta p = 0.24$ bar

Pressure loss graph



Nominal pressure PN 16

Flow sensor temperature range limits (Θ)

	$\Theta_{\min}$	$\Theta_{\max}$
Heat meter	15 °C	90 °C
Combined heat/cold meter	5 °C	90 °C
Cold meter	5°	25 °C

Temperature measurement range limits (Θ) / Temperature difference limits ($\Delta\Theta$)

	$\Theta_{\min}$	$\Theta_{\max}$	$\Delta\Theta_{\min}$	$\Delta\Theta_{\max}$
Heat meter (flow)	5 °C	90 °C	3 K	85 K
Heat meter (return)	5 °C	150 °C	3 K	100 K
Combined heat/cold meter (flow)	1 °C	90 °C	3 K	85 K
Combined heat/cold meter (return)	1 °C	150 °C	3 K	100 K
Cold meter	1 °C	25 °C	3 K	20 K

Combined heat / cold meter changeover criteria

- $\Delta\Theta_{\text{limit}} = 0.19 \text{ K}$
- $\Theta_{\text{in_change}} = 20 \text{ °C}$

Cycle starting conditions

- Standard meters: $\Delta\Theta > 0 \text{ K}$
- Combined heat/cold meters:
 - Heat measurement: $\Delta\Theta > 0 \text{ K}$ and flow temperature $> 20 \text{ °C}$
 - Cold measurement: $\Delta\Theta < 0 \text{ K}$ and flow temperature $< 20 \text{ °C}$

Interfaces

- optical interface acc. EN 61107 (log acc. EN 60870-5)
- M-Bus interface (optional)

Transfer rate

preferably 2400 baud (bit/s), also 300 baud possible.

Selection frequency

- at 300 baud (bit/s)
 - 1 time per day at 10 years battery life
 - 12 times per day at 5 years battery life
- at 2400 baud (bit/s)
 - 1 time per day at 10 years battery life
 - 96 times per day at 5 years battery life

Weight

0,652 kg - 0,760 kg (depending on variant)

Storage

Dry and frost-protected

Temperature sensors

Typ Pt 500 acc. EN 60751

Length sensor cable

- 1.5 m / 1 m (standard)
- 3 m / 1 m (optional)

Protection class

IP54 according to EN 60529

Power supply

3 V lithium battery

Life cycle

10 years + 1 year reserve + 1 year storage

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2 Approval

Heat meter variant

Type examination certificate: DE-09-MI004-PTB010

Cold meter variant:

National certification

- Germany: 22.72.12.01
- Austria: OE13/C180
- Switzerland: T2-750

Combined heat/cold meter variant

- Model test certificate: DE-09-MI004-PTB010
- Additional national certification:
 - Germany: 22.72.12.01
 - Austria: OE13/C180
 - Switzerland: T2-750

approved immersion sleeves The following thermowells conform to the named EC type examination certificate:

Article number	Set	Thread	Inner diameter	Length (mm)	Spanner size (width AF)	Hexagon height (mm)
18391	Yes	G 1/4"	5 / 50	17	8	
18386	Yes	G 1/4"	5 / 50	17	8	
18387	Yes	G 1/4"	5 / 50	17	8	
18394	Yes	G 1/4"	5 / 50	17	8	
18395	Yes	G 1/4"	5 / 50	17	8	
18396	Yes	G 1/4"	5 / 50	17	8	
18380	No	G 1/4"	5 / 50	17	8	
18392	Yes	G 1/4"	5 / 80	17	8	
18381	No	G 1/4"	5 / 80	17	8	
18393	Yes	G 1/4"	5 / 150	17	8	
18382	No	G 1/4"	5 / 150	17	8	
18515	No	G 3/8"	5 / 50	22	8	
18520	No	G 3/8"	5 / 80	22	8	
18523	No	G 3/8"	5 / 150	22	8	
18379	No	G 1/2"	5 / 60	22	18	
18518	No	G 1/2"	5 / 50	22	8	

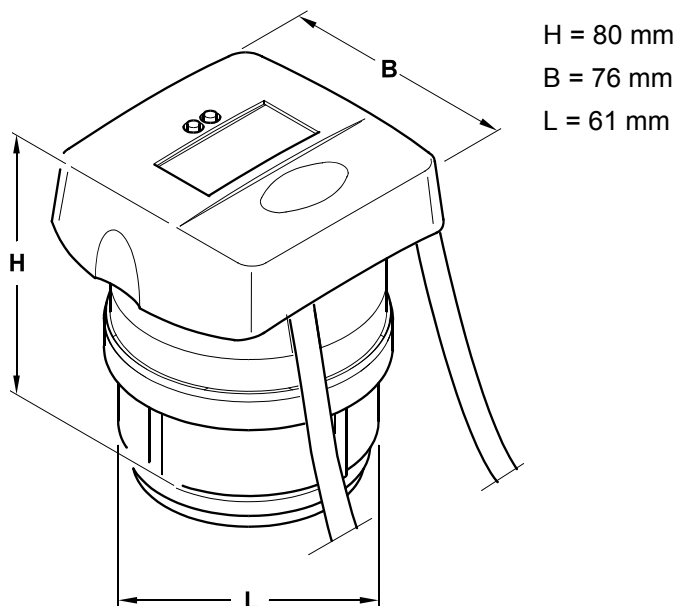
Approved temperature sensor combinations

	Asymmetrical	Symmetrical
Cold string sensor (blue marking)	sealed in the meter	Ball valve Thermowell
Hot string sensor (red marking)	Thermowell / ball valve	Ball valve Thermowell



3 Main and connection dimensions

Main dimensions



Lenght sensor cable	▪ Flow: 1,5 m (optional 3 m) ▪ Backflow: 1 m
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Lenght M-Bus cable	1 m
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