SensoStar E

Single-jet flow sensor for inline installation

- Detection of back flow
- Measuring cycle temperature, dynamic: 2 / 60 s
- Outlet flow and inlet flow can be set on site
- Lithium battery is easy to exchange
- 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;
  2 pulse outputs

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Technical data:

Flow sensor

Measuring method			bidirectional inductive scanning system		
Sizes	Nominal flow q_p	m^3/h	0,6	1,5	2,5
	Low flow threshold	horizontal	3,5 l/h	7,0 l/h	10,0 l/h
		vertical	4,0 l/h	7,0 l/h	10,0 l/h
	Minimum flow q_i	l/h	24	60	100
	Maximum flow q_s	m^3/h	1,2	3,0	5,0
Pressure drop Δp at q_p		bar	0,155	0,210	0,165
Pressure drop Δp at q_s		bar	0,660	0,840	0,675
Nominal diameter		mm	DN 15	DN 15	DN 20
Thread		inch	G3/4B	G3/4B	G1B
Length		mm	110	110	130
Dynamic range q_i/q_p (in brackets optional)		horizontal	1:25 (1:50)	1:25 (1:50; 1:100)	1:25 (1:50; 1:100)
Dynamic range q_i/q_p		vertical	1:25	1:25	1:25
Accuracy class (MID)			class 3	class 3 (2)	class 3 (2)
Nominal pressure PN		bar	16		
Temperature range heat		°C	15 - 90		
Temperature range cooling (q_p 1,5 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 ≤ 10 kWh		
Mounting position			cooling meters: any position; heat meters and cooling meters with optional dynamic ranges q_i/q_p: 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 when the amount of energy is still ≤ 10 kWh)		

Calculator unit

Temperature range heat	°C	0 – 150
Temperature range cooling (q_p 1,5 and q_p 2,5)	°C	0 – 50
Ambient temperature	°C	5 – 55 at 95 % relative humidity
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, l, l/h, MW, MMBTU, Gcal); unit of energy can be set when 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; 2 pulse outputs
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; see instruction manual
Data storage		nonvolatile memory
Reading dates		selectable yearly reading date; 15 monthly and semimonthly values via display or wireless M-Bus; 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 and power
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

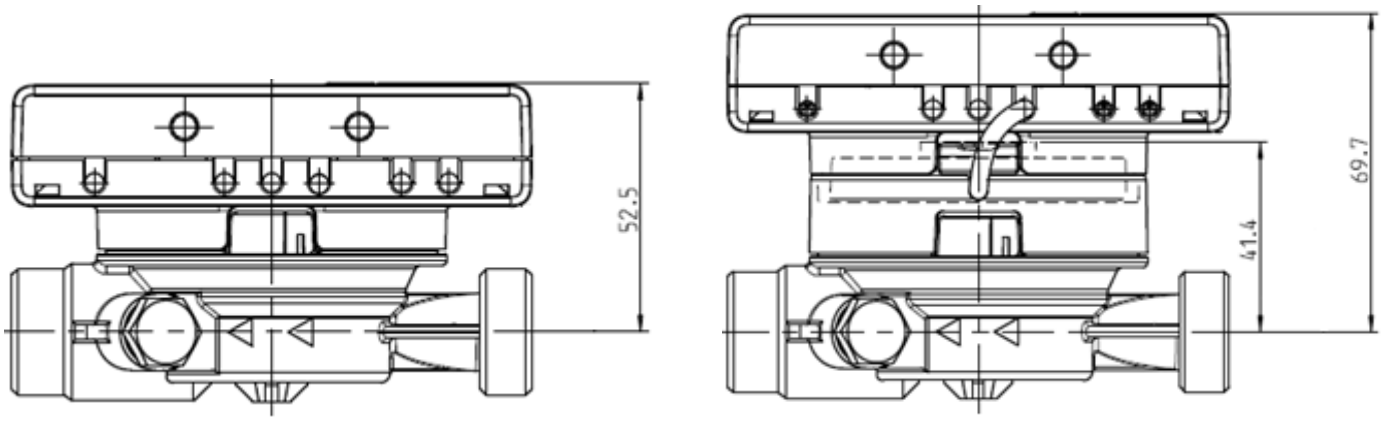
Weights

Weight (basic version, kg)	Qp 0,6 / Qp 1,5	Qp 2,5
Calculator not detachable	0,755	0,795
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	Qp 0,6 / Qp 1,5: G3/4“, DN 15	Qp 2,5: G1“, DN 20

(on the right the separable version with a detachable calculator)



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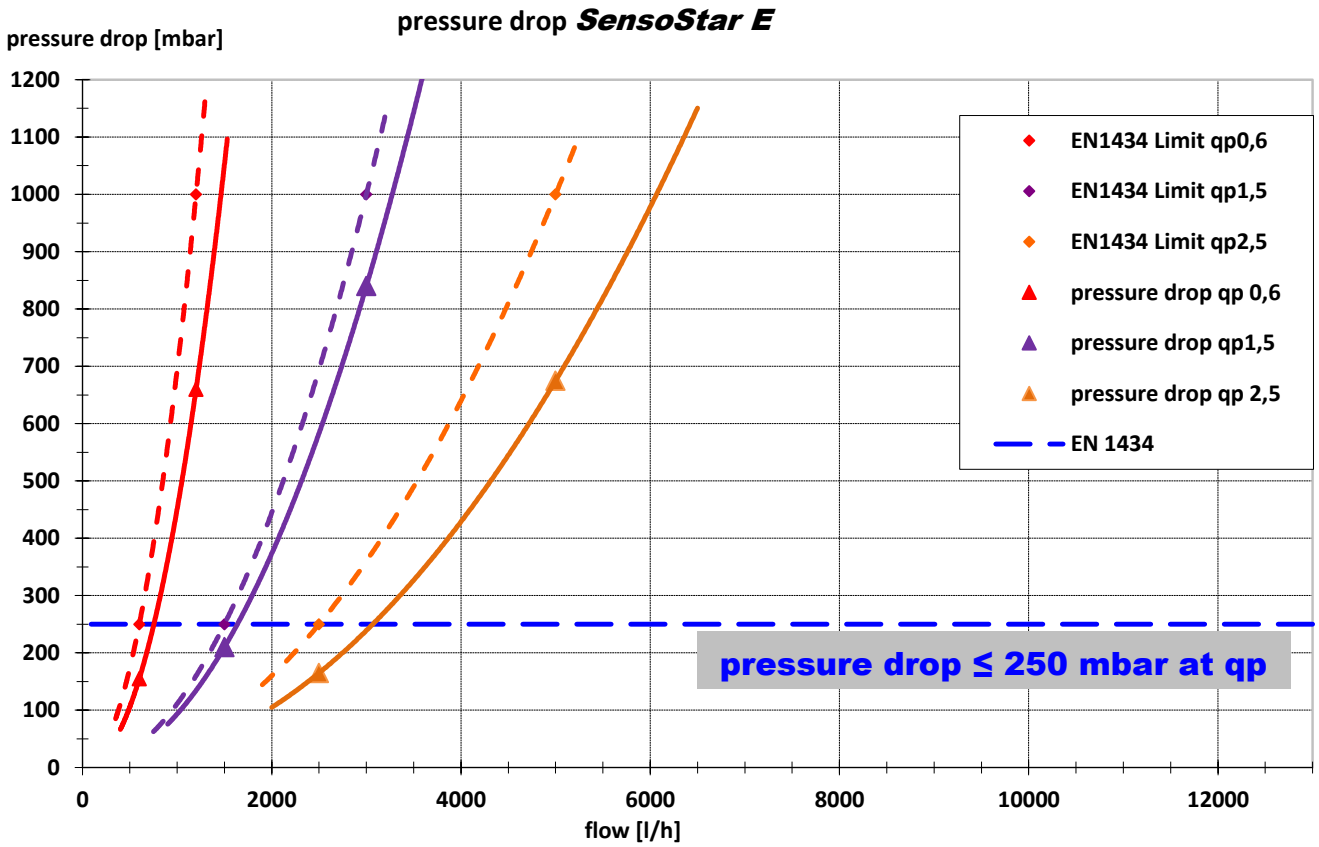

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