

# SensoStar I / T / M

Multi-jet flow sensor for installation points IST, TE1, M60



- 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

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Ижевск (3412)26-03-58

Иркутск (395)279-98-46

Казань (843)206-01-48

Калининград (4012)72-03-81

Калуга (4842)92-23-67

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Санкт-Петербург (812)309-46-40

Саратов (845)249-38-78

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Ставрополь (8652)20-65-13

Сургут (3462)77-98-35

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Ярославль (4852)69-52-93

Киргизия (996)312-96-26-47

Казахстан (7273)495-231

Таджикистан (992)427-82-92-69

## Technical data:

Measuring method			bidirectional inductive scanning system		
Sizes	Nominal flow $q_p$	$m^3/h$	0,6	1,5	2,5
	Low flow threshold	l/h	4	4	5,5
	Minimum flow $q_i$	l/h	30	30	50
	Maximum flow $q_s$	$m^3/h$	1,2	3	5
	Pressure drop $\Delta p$ at $q_p$	bar	0,03	0,2	0,24
	Pressure drop $\Delta p$ at $q_s$	bar	0,1	0,74	0,92
	Dynamic range $q_i/q_p$		1:20	1:50	1:50
	Accuracy class (MID)		class 3		
	Nominal pressure PN	bar	16		
	Temperature range medium heat	$^{\circ}C$	15 - 90		
	Temperature range medium cooling ( $q_p$ 1,5 and $q_p$ 2,5)	$^{\circ}C$	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		any position		
	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)		
	Temperature range medium heat	$^{\circ}C$	0 – 150		
	Temperature range medium cooling ( $q_p$ 1,5 and $q_p$ 2,5)	$^{\circ}C$	0 – 50		
	Ambient temperature in the field	$^{\circ}C$	5 – 55 at 95 % relative humidity		
	Transport temperature	$^{\circ}C$	-25 – 70 (for maximal 168 h)		
	Storage temperature	$^{\circ}C$	-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	$^{\circ}C$	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		
	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  
Reading dates

2 tariff registers  
Storage of maximum values

Protection class  
CE  
EMC

nonvolatile memory  
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  
can be set individually; adding up energy or time flow, power and temperatures (inlet, outlet,  $\Delta\theta$ ), plus the respective maximum values of the last 15 months  
IP65  
yes  
EN 1434

Platinum precision resistor  
Diameter  
Length of cable  
Installation

Pt 1000  
5; 5,2; 6; AGFW 27,5; 38; needle sensor 3,5 x 75  
1,5; 3; 6  
asymmetrical; symmetrical

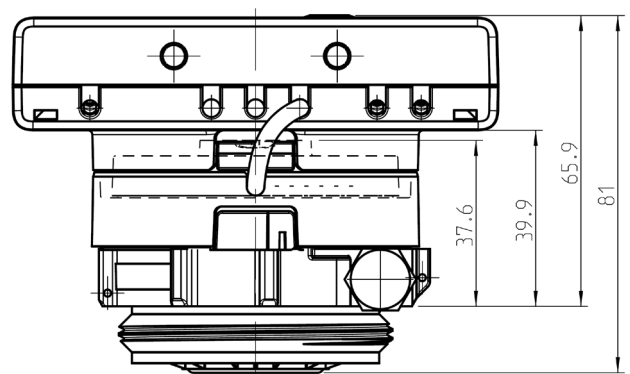
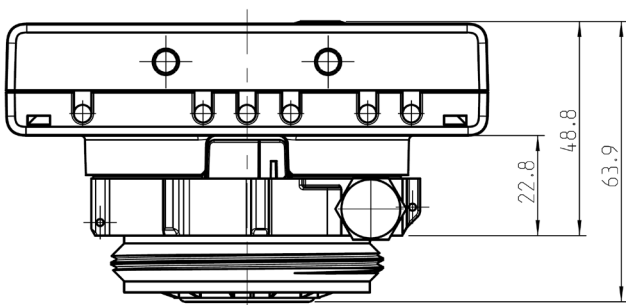
	Type I	Type T	Type M
Weight (basic version, kg)			
Calculator not detachable	0,655	--	--
Calculator detachable	0,700	0,780	0,700

**Dimensions**

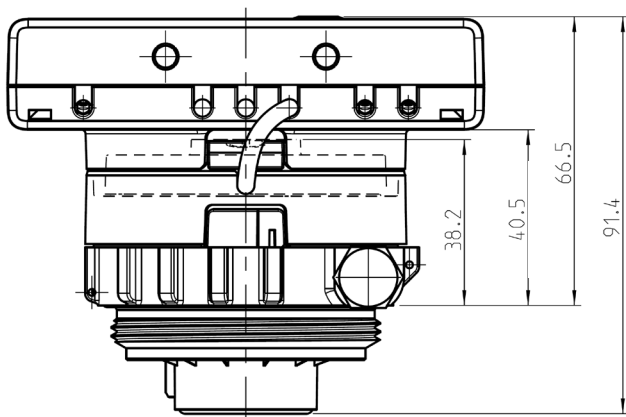
Pulse cable length (only separable version)	m	0,50	
Calculator housing (H x W x D)	mm	75 x 110 x 34,5	
Thread	Type I: 2"	Type T: M62 x 2	Type M: M60 x 1,5

(these types are available; only the type top left does not have a detachable calculator)

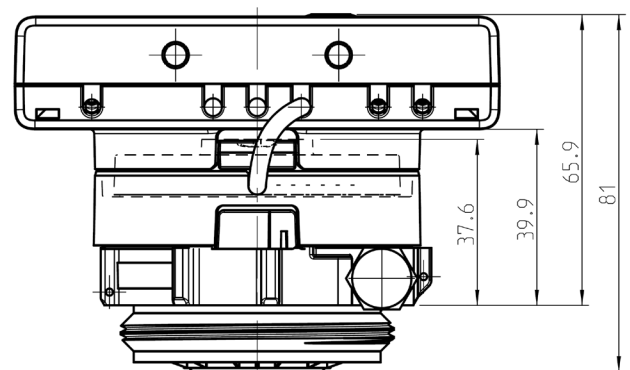
**SensoStar I**

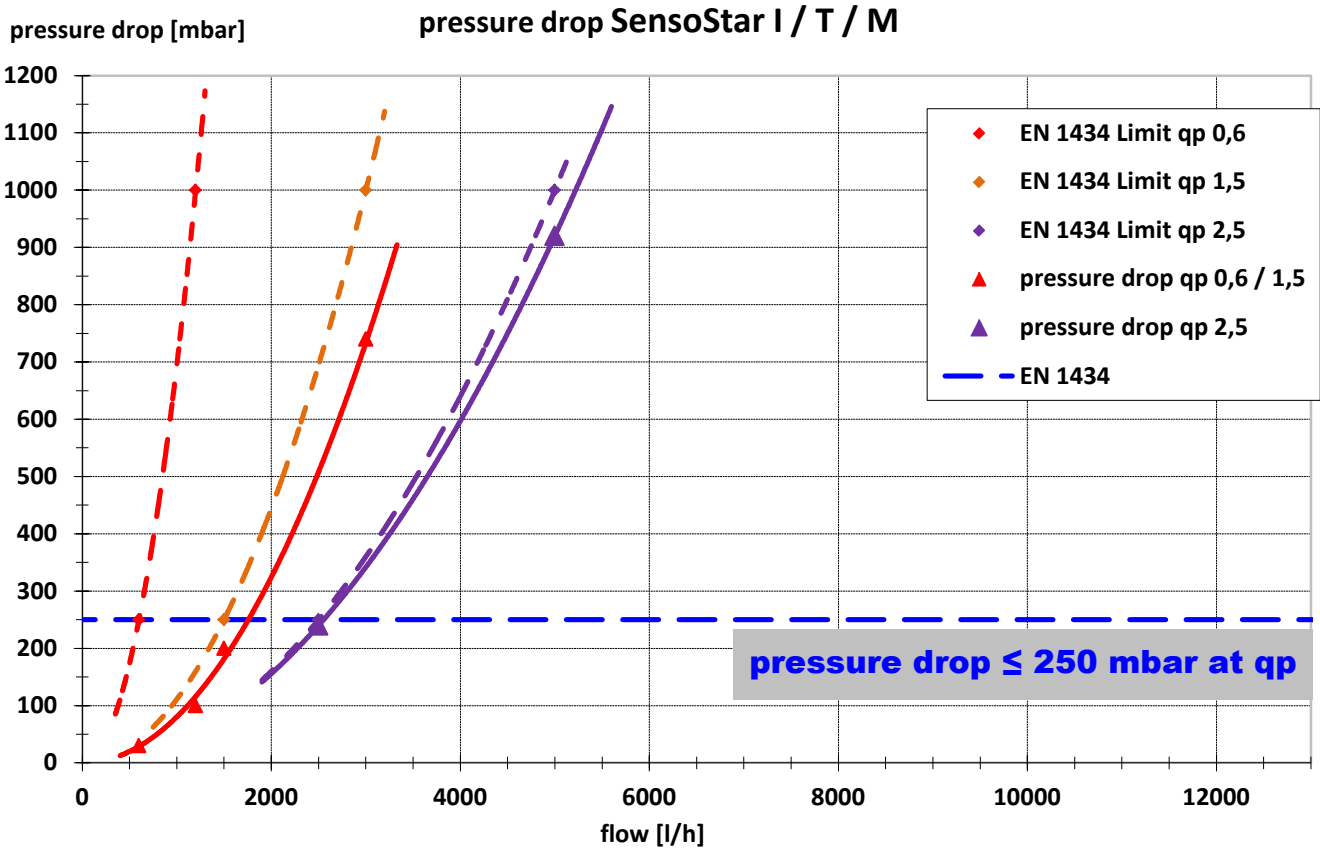


**SensoStar T**



**SensoStar M**





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Единый адрес для всех регионов: [egs@nt-rt.ru](mailto:egs@nt-rt.ru) || [www.engelmann.nt-rt.ru](http://www.engelmann.nt-rt.ru)