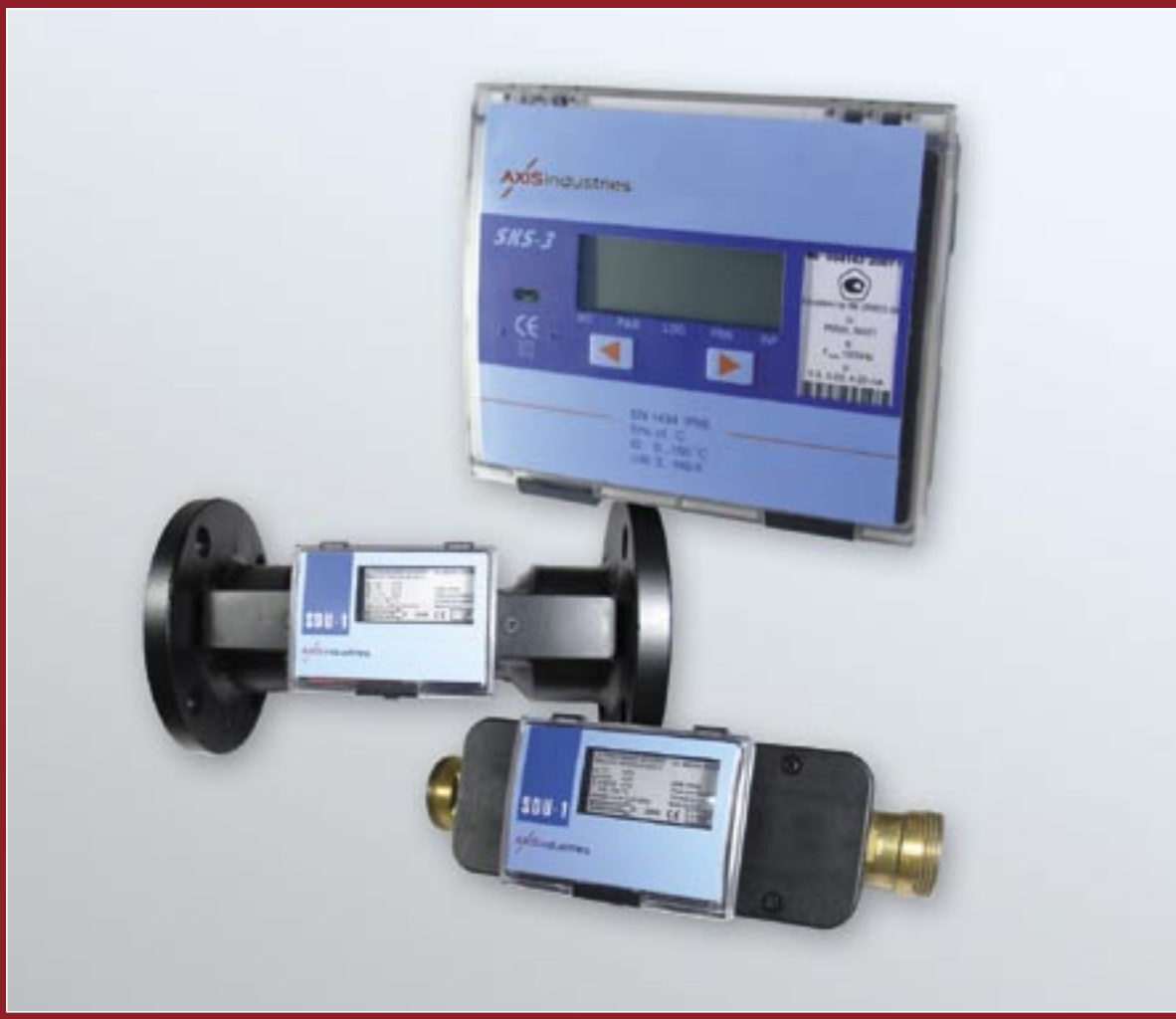
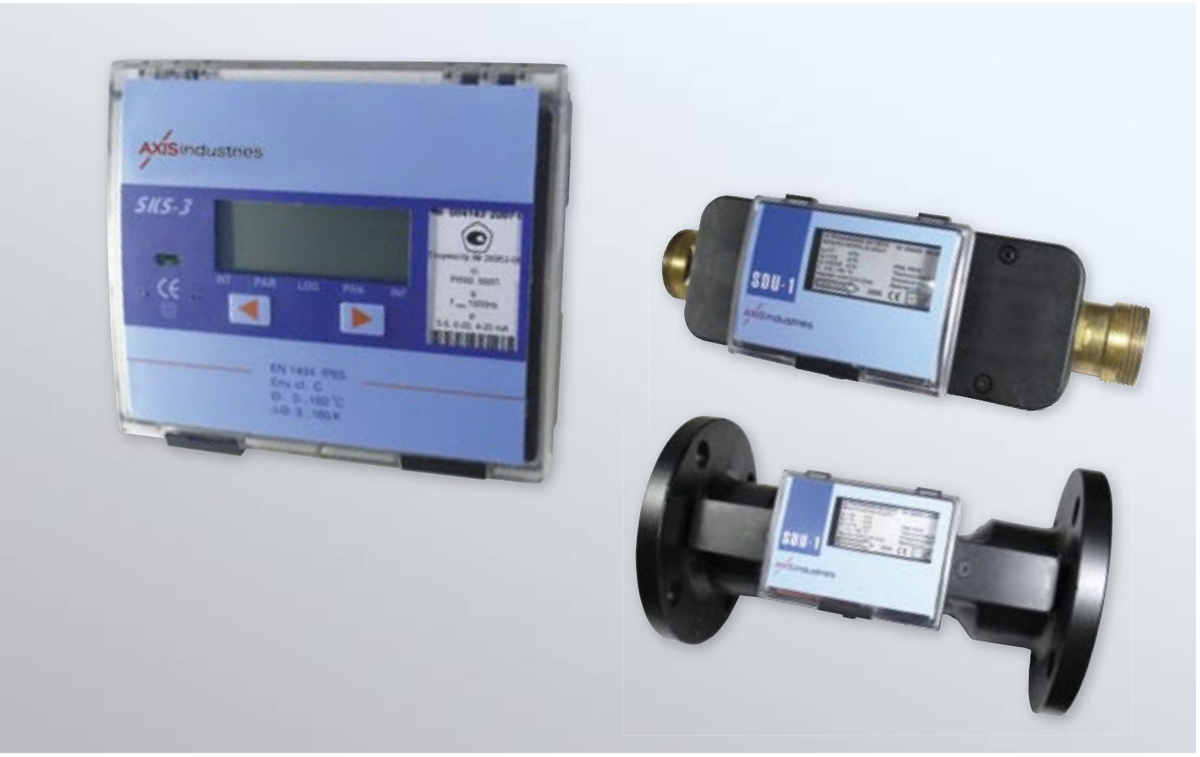
AXISindustries

Heat meter SKS-3 – energy metering device of the new generation



Main features and advantages

- Heat meter SKS-3 can be used to calculate energy values for two independent heating systems.
- Cold water temperature for open system application can be measured or fixed (pre-programmed).
- Flexible menu setup – list of parameter values displayed on the LCD may be configured according to the customer's needs.
- Works with any type of flow sensors with pulse outputs.
- Measures heating or cooling energy.
- Up to 5 flow measurement inputs.
- Up to 5 temperature sensors.
- Two channels for pressure measurement.
- Optical data interface according to EN 61107.
- Comprehensive data logger (archive).
- Up to 12 years battery supply or mains supply.
- Programmable built-in alarm relays or regulation functions.
- On-site report printing with standard RS-232 printer.

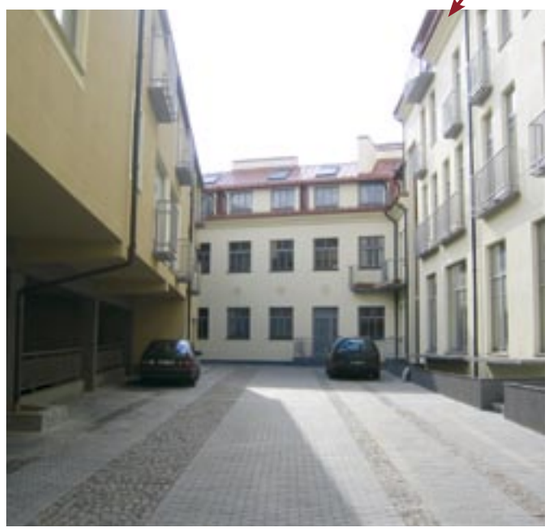


HEAT METER SKS-3

Application

Heat meter SKS-3 can be used for commercial measurement of consumed and supplied heating energy and heating medium (or other fluid quantity) in closed or open loop heating and water consumption systems.

Typical applications include energy metering in residential buildings, companies, organizations or district heating supply stations.



TECHNICAL SPECIFICATION – HEATING CALCULATOR

Temperature measurement	
Number of measurement channels	up to 5
Temperature range	0 °C … 160 °C
Temperature difference range	2 K … 160 K
Temperature sensors	Pt500, Pt1000 (EN 60751)
Measurement principle	4-wire, 2-wire
Cable length	2,5 … 100 m
Display resolution	
Temperature	0,1 °
Temperature difference	0,01 °C

Flow measurement	
Number of pulse inputs	up to 5
Pulse value	programmable
Pulse frequency	≤ 200 Hz
Cable length between the calculator and each of the sensors	2,5 … 100 m
Opposite flow measurement possibility (using direction indication signal)	for V1, V2 inputs

Pressure measurement	
Number of pressure measurement inputs	2
Sensor type	0…5 mA, 0…20 mA, 4…20 mA
Pressure range	programmable
Measurement accuracy	0,5 % of range
Outputs	
Number of pulse outputs	2
Number of current outputs (optional)	2
Number of relay outputs (optional)	1
Data output modules (optional)	M-Bus, CL, RS-232, RS-485

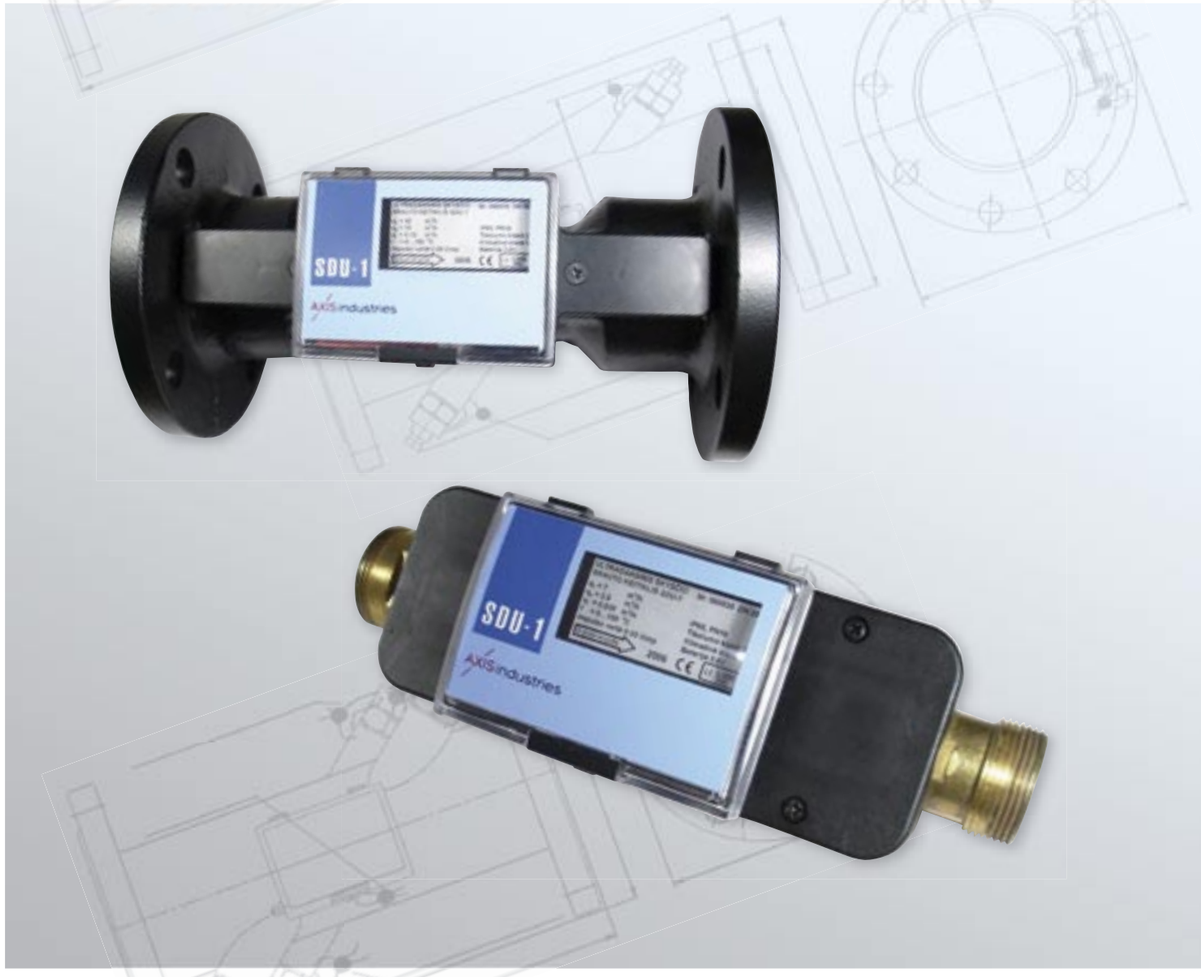
Power supply	
Battery version	Lithium 3,6 V D-cell
Mains version: mains supply	230 V AC (+10 / -15)%, 50 Hz, 2,5 VA
Environment conditions	
Ambient temperature	5 °C … 55 °C
Ambient class	Class C according to EN 1434
Protection class	IP65

Outline dimensions: 159 x 138 x 52 mm

ULTRASONIC FLOW SENSOR SDU – 1

Application

Ultrasonic flow sensor SDU-1 is designed for measuring fluid flow rate and conversion it into electrical pulse signal. Together with the flow/heat calculator, ultrasonic flow sensor SDU-1 can be applied for flow quantity measurements of heat conveying liquid and hot/ cold water.



ULTRASONIC FLOW SENSOR SDU – 1

Application

As a component of heat energy or flow volume meter, SDU-1 flow sensor may be used for commercial accounting of flow/energy quantity in district heating plants, in factories, in single- or multi-family dwelling houses.

Nominal diameter DN	Mounting length, mm	Connection type	Flow, m^3/h			Pressure loss Dp, at q_p, mbar, less than
			Minimal q_i	Nominal q_p	Maximal q_s	
25	260	Thread G 1 ¼ ”	0,035	3,5	7,0	80
32	260	Thread G 1 ¼ ”	0,06	6,0	12,0	160
40	300	Thread G 2”	0,1	10,0	20,0	160
50	270	Flange DN50	0,15	15,0	30,0	120
65	300	Flange DN65	0,25	25,0	50,0	200
80	350	Flange DN80	0,4	40,0	80,0	180
100	350	Flange DN100	0,6	60,0	120,0	180

Table of default settings of the pulse value depending on the nominal flow rate and sensor size:

DN	25	32	40	50	65	80	100	150	200
Permanent flow q_p, m^3/h	3,5	6	10	15	25	40	60	320	550
Pulse value, liter/ pulse	0,02	0,05	0,05	0,1	0,2	0,2	0,5	2	2

Other pulse values may be available upon request.

Nominal diameter DN, mm	25	32	40	50	65	80	100	150	200
Weight, less than, kg	3,0	3,0	10,0	10,0	14,0	15,0	19,0	30,0	50,0

- **Environmental conditions:**
  - ambient temperature 5 °C to 55 °C,
  - ambient humidity < 93 %,
  - atmospheric pressure 86 kPa to 106,7 kPa,
  - fluid temperature 0 °C to 150 °C,
  - fluid pressure < 1,6 MPa.
- **Degree of protection** - IP65 or IP67 (with separate order).
- The flow sensor meets the requirements according to 89/336/EEC, EN50082-2, EN50081-2.
- Flow sensor may be installed both vertically and horizontally in pipelines. Vertical mounting is allowed only if flow direction in the pipeline is upwards. Flow direction is marked with arrow symbol on the body of the flow sensor.

AB „AXIS INDUSTRIES“
Kulautuvos str. 45 a
LT-47190 Kaunas, Lithuania
Tel.: (+370 37) 36 02 34
Fax: (+370 37) 36 03 58
info@axis.lt
www.axis.lt