ENERGY INT 6

CALCULATOR

Solenvis
experts in **energy** metering

APPLICATION

Energy calculator for universal use in systems for heating and cooling measuring. Highly accurate recording of all billing data in local and district heating / cooling systems.

FEATURES

▸ Lithium battery with lifetime typical 12 years (lifetime depends on connected type of flow sensor)
▸ Can be used for heating, cooling or combined heating / cooling
▸ Meets the requirements of EN 1434
▸ Temperature range -10°C ... 190°C
▸ Power save mode
▸ NOWA test capability
▸ Individual tariff functions
▸ History memory for 24 months
▸ HYDRO-SET parameterization software on Windows basis guarantees optimum adaption to the user´s specific needs
▸ Expandable functionality with add on modules Plug and Play

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GENERAL

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Application	heating - cooling - heating/cooling
Approval	EN 1434; MID
Protection class	IP 54
Battery supply	3.0 VDC[1] - max. 12 years lifetime; 3.6 VDC - max. 10[2] / 16[3] years lifetime
Mains supply	24 VAC; 230 VAC (not possible with flow sensor SHARKY 087)
Volume pulse input frequency	max. 64 Hz; pulse durance > 3ms
Pulse value l/pulse	0.01 ... 10,000[4]
Temperature sensor type	Pt 100 or Pt 500 with 2- wire leads; Ø 5.2 / 6mm or direct sensor
Cable length of temperature sensor	Pt 100: 2m; Pt 500: 2/3/5/10m

1: no ultrasonic flow sensor connection possible
2: with flow sensor SHARKY 087
3: with flow sensor SHARKY 473
4: depending on size of flow sensor

BASIC FEATURES

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Ambient class		EN 1434 class C/A; MID class E1 + M1
Ambient Temperature	°C	0 ... 55
Storage Temperature	°C	-25 ... +70
Interfaces standard		Optical ZVEI interface
Interfaces optional		2 slots for modules with Radio, M-Bus, RS232, pulse output, pulse input or combined pulse in-/output

DISPLAY

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Display indication	LCD, 7-digit
Units	MWh - kWh - GJ - Gcal - MBtu
Total values	9,999,999 - 999,999.9 - 99,999.99 - 9,999.999
Values displayed	Energy - Power - Flow - Flow rate - Temperature and further

INTERFACES

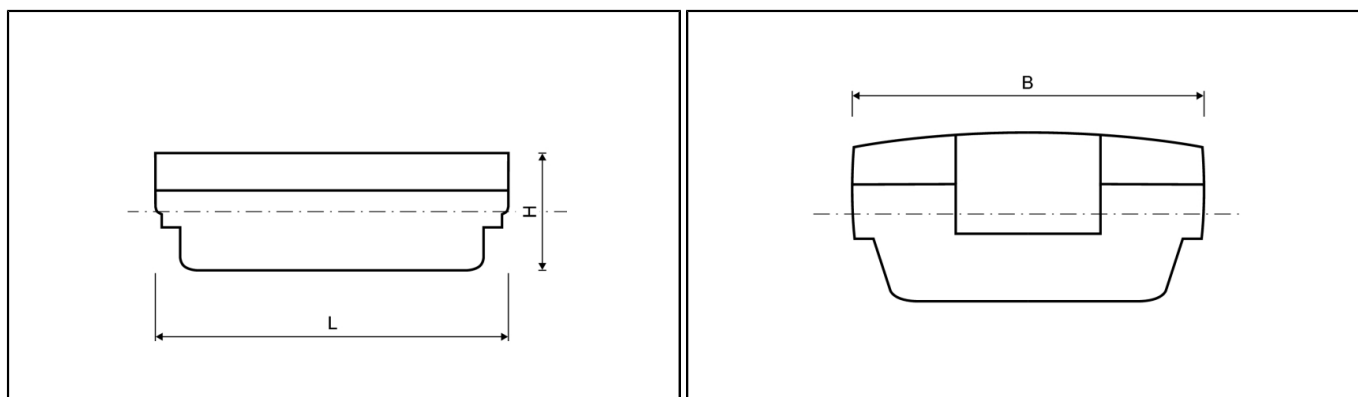|	ENERGY INT 6
Optical	ZVEI interface, for communication and testing, M-Bus protocol
Radio	868 MHz, configurable telegram, unidirectional, transmission interval from 8...20 s
M-Bus	Configurable telegram, according to EN1434-3. Data reading and parametrization are via two wires with polarity reversal protection.
RS232	Serial interface for communication with external devices. A special data cable is required. M-Bus protocol.
Pulse output	Module with 2 Open Collector pulse outputs (potential-free), 4 Hz, pulse width 125ms. Configurable via HYDRO-SET software.
Pulse input	Module with 2 pulse inputs, max. 8 Hz. Configurable via HYDRO-SET. Datas can be transferred remotely.
Combined pulse in-/output	Module with 2 pulse inputs and 1 pulse output. Configurable via HYDRO-SET.

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TEMPERATURE INPUT

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Sensor current		mA	Pt 100 peak < 8; rms < 0.015, Pt 500 peak < 2; rms < 0.012
Measuring cycle	T	s	with mains unit: 2 s; with battery: 16 s
Starting temperature difference	$\Delta\Theta$	K	0.1
Min. temperature difference	$\Delta\Theta_{min}$	K	3
Max. temperature difference	$\Delta\Theta_{max}$	K	177
Absolute temperature measuring range	Θ	°C	-10 ... 190

DIMENSIONS

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Overall length	L	mm	150
Width of calculator	B	mm	100
Height	H	mm	50