

SHARKY SOLAR 773

HYDROMETER

COMPACT ENERGY METER | ULTRASONIC



APPLICATION

The ultrasonic compact energy meter SHARKY Solar can be used for measuring the energy consumption in solar systems.

FEATURES

- ▶ Energy meter for the media **TYFOCOR LS**
- ▶ Available in the sizes q_p 0.6 up to 2.5 m³/h
- ▶ Extremely low power consumption --> long battery lifetime
- ▶ Versatile possibility of power supply
- ▶ Individual remote reading (AMR)
- ▶ Extensive readable data memory
- ▶ Insensitive against dirt
- ▶ Easy and economic remanufacture possibility
- ▶ No calming sections necessary in the inlet or outlet (standard installation)

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GENERAL

SHARKY Solar	
Application	heating
Medium	TYFOCOR LS
Approval	without
Mounting position flow sensor	any position
Protection class flow sensor	IP 54
Battery supply	3.0 VDC - max. 12 years lifetime; 3.6 VDC - max. 16 years lifetime
Mains supply	24 VAC; 230 VAC
Temperature sensor type	Pt 100 or Pt 500 with 2-wire leads; Ø 5.2 / 6 mm or direct sensor
Cable length of temperature sensor	Pt 100: 2 m; Pt 500: 2 / 3 / 5 / 10 m

CALCULATOR - BASIC FEATURES

SHARKY Solar	
Ambient class	EN 1434 class C / MID class E1 + M1
Ambient Temperature	°C 5 ... 55
Protection class	IP 54
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
Temperature range	°C 5 ... 130

DISPLAY

SHARKY Solar	
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

INTERFACES

SHARKY Solar	
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). Configurable via HYDRO-SET software.
Pulse input	Module with 2 pulse inputs. 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

SHARKY Solar			
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	0.125
Min. temperature difference	$\Delta\Theta_{\min}$	K	3
Max. temperature difference	$\Delta\Theta_{\max}$	K	127
Absolute temperature measuring range	Θ	°C	0 ... 130

TECHNICAL DATA FLOW SENSOR

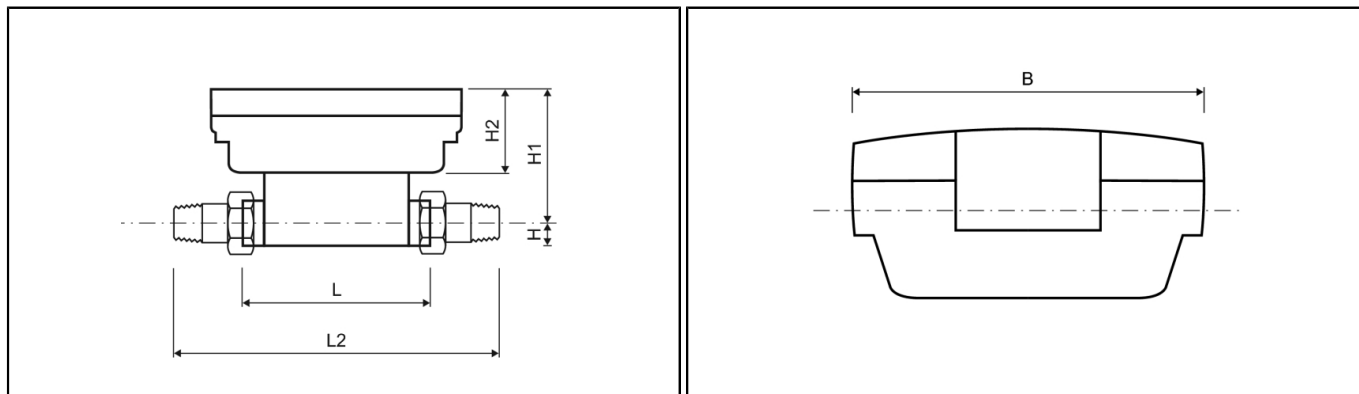
Nominal flow rate	q_p	m^3/h	0.6	0.6	0.6	1.5	1.5	1.5	2.5	2.5
Nominal diameter	DN	mm	15	20	20	15	20	20	20	20
Overall length	L	mm	110	130	190	110	130	190	130	190
Starting flow rate		l/h	1	1	1	2.5	2.5	2.5	4	4
Minimum flow rate	q_i	l/h	6	6	6	6	6	6	10	10
Maximum flow rate	q_s	m^3/h	1.2	1.2	1.2	3	3	3	5	5
Overload flow rate		m^3/h	2.5	2.5	2.5	4.6	4.6	4.6	6.7	6.7
Operating pressure	PN	bar	16 ¹	16 ¹	16 ¹	16 ¹	16 ¹	16 ¹	16 ¹	16 ¹
Temp. range		°C	5 ... 130	5 ... 130	5 ... 130	5 ... 130	5 ... 130	5 ... 130	5 ... 130	5 ... 130

1: Also available in PN 25 bar

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DIMENSIONS THREAD VERSION

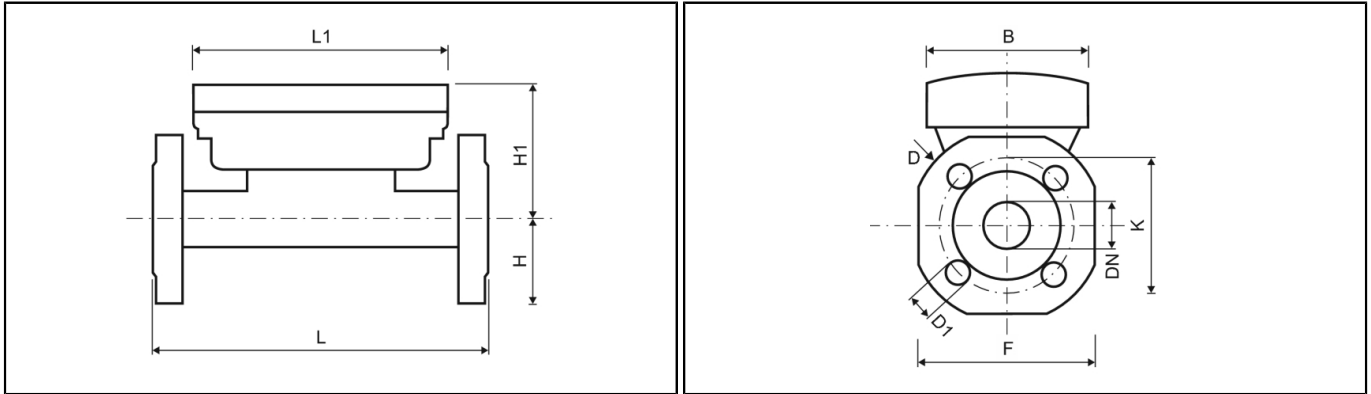


Nominal flow rate	q _p	m ³ /h	0.6	0.6	0.6	1.5	1.5	1.5	2.5	2.5
Nominal diameter	DN	mm	15	20	20	15	20	20	20	20
Overall length	L	mm	110	130	190	110	130	190	130	190
Overall length with coupling	L2	mm	190	230	-	190	230	-	230	-
Length of calculator	L1	mm	150	150	150	150	150	150	150	150
Height	H	mm	14.5	18	18	14.5	18	18	18	18
Height	H1	mm	78	80	80	78	80	80	80	80
Height of calculator	H2	mm	50	50	50	50	50	50	50	50
Width of calculator	B	mm	100	100	100	100	100	100	100	100
Connection thread on meter		Inch	G ³ / ₄ B	G1B	G1B	G ³ / ₄ B	G1B	G1B	G1B	G1B
Connection thread of coupling		Inch	R ¹ / ₂	R ³ / ₄	R ³ / ₄	R ¹ / ₂	R ³ / ₄	R ³ / ₄	R ³ / ₄	R ³ / ₄
Weight		kg	0.76	0.85	0.96	0.76	0.85	0.96	0.85	0.96

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DIMENSIONS FLANGE VERSION



Nominal flow rate	q _p	m ³ /h	0.6	0.6	0.6	1.5	1.5	1.5	2.5	2.5
Nominal diameter	DN	mm	15	20	20	15	20	20	20	20
Overall length	L	mm	110	130	190	110	130	190	130	190
Length of calculator	L1	mm	-	-	150	-	-	150	-	150
Height	H	mm	-	-	47.5	-	-	47.5	-	47.5
Height	H1	mm	-	-	80	-	-	80	-	80
Height of calculator	H2	mm	-	-	50	-	-	50	-	50
Width of calculator	B	mm	-	-	100	-	-	100	-	100
Flange dimension	F	mm	-	-	95	-	-	95	-	95
Flange diameter	D	mm	-	-	105	-	-	105	-	105
Hole circle diameter	K	mm	-	-	75	-	-	75	-	75
Screw hole diameter	D1	mm	-	-	14	-	-	14	-	14
Number of screwholes		pcs	-	-	4	-	-	4	-	4
Weight		kg	-	-	2.75	-	-	2.75	-	2.75

HYDROMETER

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 Subject to technical adjustments

 smart in solutions

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