

# SHARKY 774

ULTRASONIC COMPACT ENERGY METER

**DIEHL**  
Metering



## APPLICATION

The ultrasonic compact energy meter can be used for measuring the energy consumption in heating application for billing purposes.

## FEATURES

Approval for ultrasonic meter with dynamic range of 1:100 ( $q_i:q_p$ ) in class 2  
Improved power consumption, longer battery lifetime  
High long term stability, tested and verified at independent AGFW test  
Insensitive against dirt  
Extensive readable data memory  
M-Bus communication or 434 MHz integrated radio

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## ULTRASONIC COMPACT ENERGY METER

### GENERAL

		SHARKY 774	
Application		Heating	
Approval		CMC / CPA class 2	
Mounting position flow sensor		Any position	
Protection class		IP 65	
Supply		Battery 3.6 VDC, up to 12 years lifetime	
Temperature sensor type		Pt 500 with 2-wire leads; $\Phi$ 5.2mm	
Temperature range medium	°C	5 ... 105	
Cable length of temperature sensor	m	1.5 / 3 / 5 / 10	
Volume measuring cycle	s	2	
Test possibilities		Via display, optical test pulses, communication test	

### CALCULATOR-BASIC FEATURES

		SHARKY 774	
Environmental class		Class C	
Ambient operating temperature	°C	5 ... 55	
Ambient storage temperature	°C	-25 ... +60 (>35°, max. 4 weeks)	
M-Bus interface		According to EN13757-3, GB/T26831, cable length 1.5 m	
Radio interface		Optional, 434 MHz	
Optical interface		ZVEI standard	
Extensive readable data memory		History log; event memory	

### DISPLAY

		SHARKY 774	
Display indication		LCD, 8-digits	
Units		kWh (MWh, GJ)	
Total values		99,999,999 (9,999,999.9 - 999,999.99 - 99,999.999)	
Values displayed		Energy - Power - Volume - Flow rate - Temperature and more	

### INTERFACE

		SHARKY 774	
M-Bus		According to EN 13757-3, GB/T 26831 for data reading and parametrization, auto baud detect (300 and 2400 baud)	
Radio		Open Meter Standard (OMS), according to EN13757-4, GB/T 26831	

### TEMPERATURE INPUT

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Measuring cycle	T	s	16
Starting temperature difference	$\Delta\Theta$	K	0.125
Min. temperature difference	$\Delta\Theta_{\min}$	K	3
Max. temperature difference	$\Delta\Theta_{\max}$	K	102
Temperature range calculator	$\Theta$	°C	1 ... 130

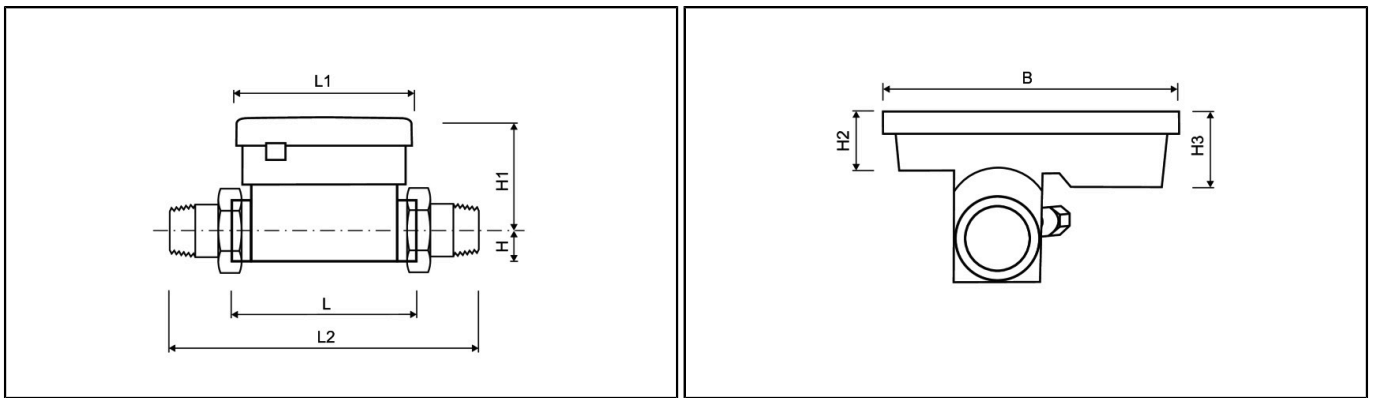
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### TECHNICAL DATA FLOW SENSOR

Nominal flow rate	$q_p$	$m^3/h$	1.5	2.5	3.5	3.5	6	6	10
Nominal diameter	DN	mm	15	25	25	32	25	32	40
Overall length	L	mm	110	130	260	260	260	260	300
Starting flow rate		l/h	2.5	4	7	7	7	7	20
Minimum flow rate	$q_i$	l/h	15	25	35	35	60	60	100
Maximum flow rate	$q_s$	$m^3/h$	3	5	7	7	12	12	20
Overload flow rate		$m^3/h$	4.6	6.7	18.4	18.4	18.4	18.4	24
Operating pressure	PN	bar	16	16	16	16	16	16	16
Pressure loss at $q_p$	$\Delta p$	mbar	75	100	44	44	128	128	95
Temp. range heating		$^{\circ}C$	5...105	5 ... 105	5 ... 105	5 ... 105	5 ... 105	5 ... 105	5 ... 105

### DIMENSIONS THREAD VERSION



Nominal flow rate	$q_p$	$m^3/h$	1.5	2.5	3.5	3.5	6	6	10
Nominal diameter	DN	mm	15	25	25	32	25	32	40
Overall length	L	mm	110	130	260	260	260	260	300
Overall length with coupling	L2	mm	190	250	380	380	380	380	440
Length of calculator	L1	mm	90	90	90	90	90	90	90
Height	H	mm	14.5	23	23	23	23	23	33
Height	H1	mm	55	58	62.5	62.5	62.5	62.5	68
Height of calculator	H2	mm	27	27	27	27	27	27	27
Height of calculator	H3	mm	40	40	40	40	40	40	40
Width of calculator	B	mm	135	135	135	135	135	135	135
Connection thread on meter		Inch	G3/4B	G5/4B	G5/4B	G3/2B	G5/4B	G3/2B	G2B
Connection thread of coupling		Inch	R1/2	R1	R1	R5/4	R1	R5/4	R3/2
Weight		kg	0.70	0.88	1.53	1.53	1.53	1.53	3.13

### PRESSURE LOSS GRAPH/TYPICAL ERRORGRAPH

