

SHARKY 774 COMPACT

- Ensure high measurement stability and a low pressure loss
- Easy to install in heating systems
- The best transmission performance available
- One of the leading energy meters when it comes to measurement rates and communication rates



Compact energy meter with high measurement rate and long battery lifetime

Application

SHARKY 774 can be used to measure the energy consumption used for heating. The energy meter is designed for remote reading and can register large amounts of data. This means that residents do not have to be home for the consumption reading, and that the meter can provide an overview of the consumption used. With these elements, SHARKY 774 is one of the market's most leading resource-optimized meters, both in terms of operation, environment and economy.

Properties

The measurement principle is static and based on ultrasound technology, which provides many benefits: No moving parts (avoids wear and tear of the meter's components), low pressure loss, low start flow, etc.

Functions

- AMR Smart meter
- Wireless M-Bus communication, also known as OMS
- Constant high measurement rates (vol.: 2 s; temp.: 16 s)
- Battery with lifetime of up to 12 years
- AA battery with only a small amount of lithium (0.7 g per cell)
- MID electromagnetic class E2, which is less sensitive to external effects
- 8-digit LCD display, which is easy to read
- The meter is only 45 mm high, which means it is easy to install.

Facts

- MID-approved
- Continuous high measurement rates – measuring volume every two and temperature every 16 seconds
- Energy consumption calculated and updated every two seconds
- EEPROM memory with periodic log, history log and event log
- Integrated radio with 868 MHz and Open Metering Standard (OMS)
- Transmits a radio telegram every 64 seconds, 24/7 for 12 years
- Battery lifetime of up to 12 years using AA cell batteries, which contain less lithium than A cell batteries

SHARKY 774	
Application	Heating
Compliance and approvals	MID
Environment class	Class 2
Ambient temperature °C	5–55 (<35 has a positive effect on battery lifetime)
Storage temperature °C	Typically 5–55 The minimum and maximum temperature is -20 °C and +60 °C (max. 4 weeks)
Humidity %	93 max.
Battery power	3.6 VDC, lifetime up to 12 years (with normal use and temperature. This is the theoretical lifetime and is not covered by the warranty)
Temperature sensor type	PT 500, 2-wire; Ø5.2 mm
Temperature sensor cable length m	1.45
Test options	Via display
Battery*	3.6 VDC, 2 x AA batteries
Lithium content g	2 x 0.7
Measurement cycle for volume T s	2
Measurement cycle for temperature T s	16
Energy calculation T s	2

*Battery is not replaceable

Flow sensor - Basic functions

SHARKY 774	
Measurement cycle s	2
Dynamic range (qp/qi)	1:100
Useful range (qa/qp)	2:1
Water temperature range °C	5–105
Ingress Protection	IP 54

Calculator - Basic functions

SHARKY 774	
Ingress Protection	IP 65
Environmental class - mechanical	M1, M2
Environmental class - electromechanical	E1, E2
Calculator	Removable, with 0.45 m cable for flow sensor
Temperature range θ °C	1–105 (calculator)
Start temperature difference $\Delta\theta$ K	0.125
Min. temperature difference $\Delta\theta$ K	3 (MID compliant)
Max. temperature difference $\Delta\theta$ K	90/120 (heating)
Temperature measurement cycle T	16
Readable data store	Two predefined history log files for 720 daily (Log-1) and 120 yearly (Log-2) values of energy, volume and error hours, in addition the memory contains registered errors in monthly log (error log)

Interfaces

SHARKY 774	
Optical	In accordance with ZVEI standard
Display	LCD
Wireless M-Bus	In accordance with EN13757-4:2013

Display

SHARKY 774	
Display	8-digit
Units of measurement	kWh - GJ - m ³ - °C
Total values	99,999.999
Displayed values	Energy - Power - Volume - Flow - Temperature - etc.

Wireless M-Bus

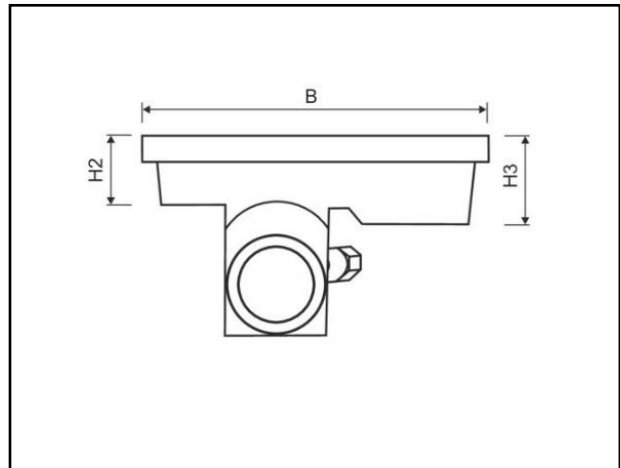
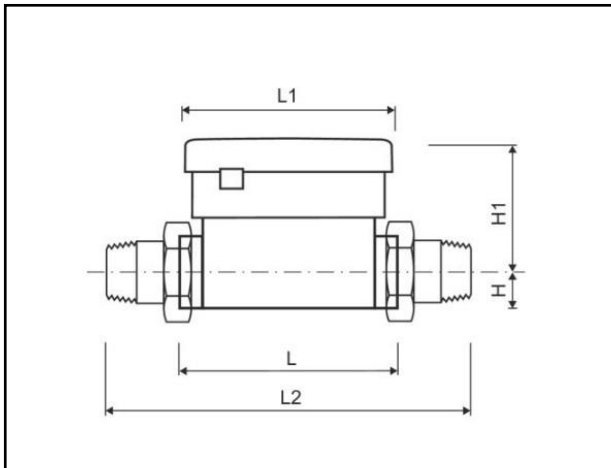
SHARKY 774	
Frequency	868 MHz
Type of radio telegram	Open Metering Standard (OMS)
Transmission of data	Online - no time delay between measured value and data transfer
Data transfer	One-way
Transmission intervals	Standard mode (Walk-by): 64 s
Battery lifetime* T a	Standard mode: lifetime up to 12 years (depending on transmission interval)

*Battery is not replaceable

Technical data for flow sensor

Nominal flow rate	qp	m ³ /h	0.6	1.5	1.5	2.5
Nominal diameter	DN	mm	15	15	20	20
Length without couplings	L	mm	110	110	130	130
Start flow rate		l/h	1	2.5	2.5	4
Minimum volume flow rate	qi	l/h	6	15	15	25
Maximum volume flow rate	qs	m ³ /h	1.2	3	3	5
Overload volume flow rate		m ³ /h	2.5	4.6	4.6	6.7
Operating pressure			16	16	16	16
Kvs value ($\Delta p = Q^2/Kvs^2$)			1.95	4.33	5.48	7.91
Pressure loss at qp	Δp	mbar	95	120	75	100

Dimensions for threaded connection



Nominal flow rate	qp	m ³ /h	0.6	1.5	1.5	2.5
Nominal diameter	DN	mm	15	15	20	20
Length without couplings	L	mm	110	110	130	130
Length with couplings	L2	mm	190	190	230	230
Calculator length	L1	mm	90	90	90	90
Height	H	mm	14.5	14.5	18	18
Height	H1	mm	55	55	58	58
Calculator height	H2	mm	27	27	27	27
Calculator height	H3	mm	40	40	40	40
Width with calculator	B	mm	135	135	135	135
Meter connection thread		inch	G $\frac{3}{4}$ B	G $\frac{3}{4}$ B	G1B	G1B
Coupling thread		inch	R $\frac{1}{2}$	R $\frac{1}{2}$	R $\frac{3}{4}$	R $\frac{3}{4}$
Weight		kg	0.70	0.70	0.77	0.77

Pressure loss graph and typical error graph

