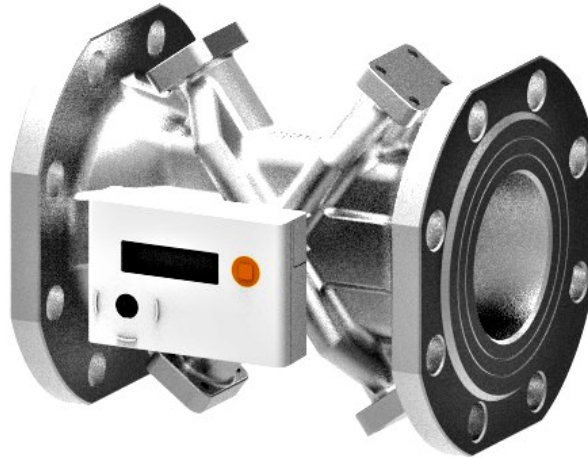


HYDRASONIC S8 FLANGED

KIMANS Inc.

ULTRASONIC HEATING/COOLING BTU METER



Hydrasonic S8 ultrasonic BTU meter is designed for measuring the energy consumption in heating/cooling application for billing purpose.

Its static ultrasonic technology is based on the measurement of the transit time. It offers benefits like easy battery & temperature sensor replacement, IP68 protection, M-Bus and Wireless M-Bus communication options.

FEATURES

- Easy battery replacement
- Easy temperature sensor replacement
- Heat-transfer fluid: water
- Constant high measuring rates of the temperatures and volume with up to 12 years battery life-time
- M-Bus or Wireless M-Bus communication options
- 8-digit LCD
- Removable calculator (3 m coaxial cable) ensuring comfortable reading

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ULTRASONIC HEATING/COOLING BTU METER

GENERAL

HYDRASONIC S8 FLANGED		
Application	-	Heating or bi-functional (heating/cooling) Heat-transfer fluid: glycol-free water
Approval	-	In compliance with MID-EN1434
Accuracy class	-	Class 2
Ambient temperature	°C	+5 ... +55
Storage temperature	°C	+5 ... +55 max. -20...+60 (max. 4 weeks)
Humidity	%	95 maximum
Battery supply	-	3.6 VDC
Temperature sensor type	-	PT1000 , 2-wires: Ø 5.2 mm
Cable length of temperature sensor	m	3
Test possibilities	-	via display
Volume measuring cycle	s	2
Temperature measuring cycle	s	30
Power calculation cycle	s	2

FLOW SENSORS-BASIC FEATURES

HYDRASONIC S8 FLANGED		
Dynamic range (Q_p/Q_i)	-	1:50
Mounting position flow sensor		Any position, no straight run requirements
Temperature range (heating/cooling)	°C	2-87*
Protection class	-	IP68 (heating/cooling)
Material of construction (MOC)	-	Stainless Steel (SS)
	-	Cast Iron (CI)

*150 °C optional

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CALCULATOR-BASIC FEATURES

HYDRASONIC S8 FLANGED		
Protection class	-	IP66 (Optional IP67)
Environmental class-mechanical	-	M1, M2
Environmental class-electromechanical	-	E1, E2
Calculator	-	Removable, with 3 m cable to flow sensor
Absolute temperature range	°C	+1...+90 (+150 optional)
Starting temperature difference $\Delta\theta$	K	0.125
Min. temperature difference $\Delta\theta_{min}$	K	In compliance with MID
Max. temperature difference (heating) $\Delta\theta_{max}$	K	147 (In compliance with MID)
Extensive readable data memory	-	Monthly for 18 months (hourly, daily, yearly optional) values of energy, volume and error hours; additionally event memory (error log)
Interchangeable components	-	Battery (Standard) ; Temperature sensors (Optional)

INTERFACES

HYDRASONIC S8 FLANGED	
Optical	ZVEI interface, for communication and testing. M-Bus protocol
Display	LCD-8 digit
M-Bus	According to EN13757-3: 2013
Wireless M-Bus	According to EN13757-4; 2013

DISPLAY

HYDRASONIC S8 FLANGED	
Display indication	LCD-8 digit + special characters
Units	kWh - m ³ - °C - m ³ /h*
Total values	99,999.999
Values displayed (main loop)	Energy - Volume - Flow - Power - Temperature - Differential temperature - Operating hours - Meter SN-Meter size-Meter time-Error Status

*MWh-GJ optional

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M-BUS

HYDRASONIC S8 FLANGED	
M-Bus	Auto baud detect (300 and 2,400 bauds); galvanically insulated
M-Bus cable	24 AWG, 2 Core
Data transmission	Data reading via 2 non-polarized wire (1.5m)
Battery life-time	Up-to 12 years*

*Under standard conditions of use and temperature

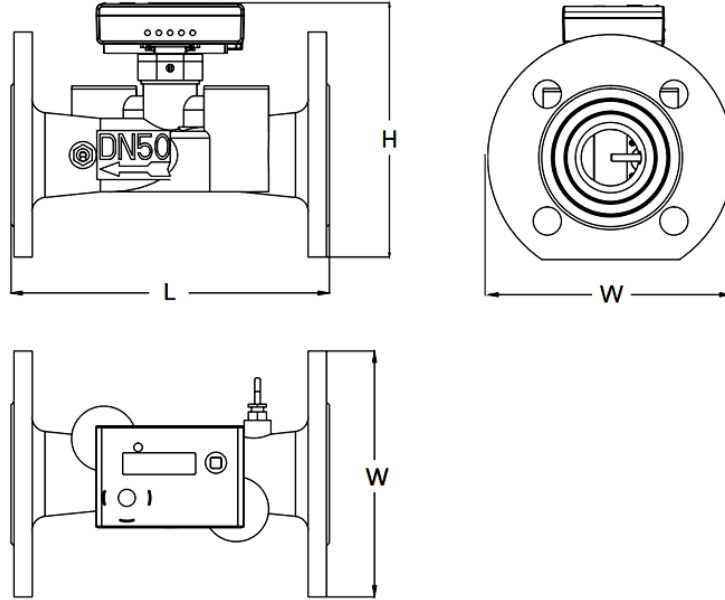
TECHNICAL DATA FOR FLOW SENSOR

HYDRASONIC S8 FLANGED														
Measuring Method	Ultrasonic; Time of Flight													
Nominal Diameter	mm	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400	DN450	DN500
Nominal flow q_p	m ³ /h	15	25	40	60	100	150	250	400	600	750	900	1200	1500
Minimum flow q_i	m ³ /h	0.3	0.5	0.8	1.2	2.0	3.0	5.0	8.0	12	15	18	24	30
Maximum flow q_s	m ³ /h	30	50	80	120	200	300	500	800	1200	1500	1800	2400	3000
Length	mm	200	200	225	250	250	300	350	450	500	500	500	500	500
Dynamic range Q_p/Q_i	-	1:50	1:50	1:50	1:50	1:50	1:50	1:50	1:50	1:50	1:50	1:50	1:50	1:50
Accuracy class (MID)	-	Class 2												
Nominal pressure PN	bar	16												

HYDRASONIC S8 FLANGED

ULTRASONIC HEATING/COOLING BTU METER

DIMENSIONS



Nominal diameter (DN)	Length L (mm)	Stainless Steel (SS)		Cast Iron (CI)		Stud Bolt	Bolt holes
		Width W (mm)	Height H (mm)	Width W (mm)	Height H (mm)		
50	200	165	180	165	190	M16	4
65	200	182	197	185	203	M16	4
80	225	197	209	184	220	M16	8
100	250	218	229	205	229	M16	8
125	250	245	260	230	245	M16	8
150	300	283	295	260	265	M20	8
200	350	335	340	320	320	M20	12
250	450	405	405	405	405	M24	12
300	500	460	460	460	460	M24	12
350	500	520	520	520	520	M24	16
400	500	580	580	580	580	M27	16
450	500	640	640	640	640	M27	20
500	500	715	715	715	715	M30	20

HYDRASONIC S8 FLANGED

ULTRASONIC HEATING/COOLING BTU METER

ORDERING CODE

S8	-	XX	-	XX	-	XX	-	XX	-	XX	-	XX
CONNECTION SIZE (FLANGED)												
DN 50		50										
DN 65		65										
DN 80		80										
DN 100		100										
DN 125		125										
DN 150		150										
DN 200		200										
DN 250		250										
DN 300		300										
DN 350		350										
DN 400		400										
DN 450		450										
DN 500		500										
MATERIAL OF CONSTRUCTION (MOC)												
Stainless Steel											SS	
Cast Iron											CI	
FLOW SENSOR CABLE LENGTH												
3 m											3	
TEMPERATURE SENSOR CABLE LENGTH												
3 m											3	
INTERCHANGEABLE COMPONENTS												
Battery (Standard)												B
Battery & Temperature Sensors												BT
TEMPERATURE RANGE												
1-90 °C												TS
1-150 °C												TO