



## ENERGY METER BRUNATA ZELSIUS C5 ISF



## BRUNATA ZELSIUS C5 ISF IS A COMPACT ENERGY METER WITH HIGH MEASUREMENT RATE AND LONG BATTERY LIFE- TIME

### APPLICATIONS

Brunata Zelsius C5 ISF can be used to measure the energy consumption and is available as an energy meter for heating, an energy meter for cooling and a combined energy meter for heating and cooling. With a built-in radiomodule, the energy meter is designed for remote reading and can register large amounts of data. This means that the meter can provide an overview of the consumption used. With these elements, Brunata Zelsius C5 ISF is one of the market's most leading resource-optimized meters, both in terms of operation, environment and economy.

### PROPERTIES

The energy meter is build after the single-jet impeller principle, which ensures high measurement stability. Its dimension corresponds to the maximum flow rate in the heating systems circuit and can be ordred for either the supply pipe or the return pipe.

### FUNCTIONS

- Single jet impeller
- Low start flow and low pressure loss
- Compact design
- Rotatable calculator

### REMOTE READINGS

Brunata Zelsius C5 ISF has a built-in radio module that enables the meter to be read remotely, and that can be read via Brunata Net. Brunata Net is a radio network that can be set up in all types of properties.

With Brunata Net you can, as the property administrator, gain access to monitor measurement data via Brunata Online. Brunata Online allows both residents and the administrator to monitor the development of consumption and consumption patterns.

### WHY

- Compact energy meter to measure the energy consumption
- Ensure high measurement stability and a low pressure loss
- Long battery lifetime
- Get your property ready for the legal requirements and technical standards of the future

### FACTS

- MID-approved
- Energy meter with built-in radio module that sends a telegram every 24 hours (LoRaWAN) or every 3. minute (wM-Bus)
- Available as an energy meter for heating or cooling, or a combined energy meter for heating and cooling
- The energy meter can be installed vertically and horizontally
- The energy meter has 11 years of battery lifetime
- The meter meets the Energy Efficiency Directive's (EED) requirement for remote reading

LoRaWAN M-Bus  
ENERGY METER  
BRUNATA ZELSIUS C5 ISF



## TECHNICAL DATA FOR CALCULATOR

Temperature range °C	0 ... 105
Temperature range difference K	3 ... 80
Display	8-digit LCD
Ambient temperature during operation °C	5 ... 55
Resolution temperature °C	0,01
Flow rate	Standard 30s
Temperature	Standard 30s
Consumption standard	Standard: kWh Optionally: MWh or GJ
Data backup	1 x daily
Standard optical interfaces	ZVEI IrDA
Frequency band	868 MHz
Radiomodule	LoRaWAN wM-Bus
Transmission frequency	Every 24 hour (LoRaWAN) Every 3. minut (wM-Bus)
Storage of monthly due date values	During the entire operation time
Maximum value storage	Flow rate, thermal output and other parameters
Battery	3.6 V lithium battery
Battery lifetime	Up to 11 years
Protection class	IP 54
Environmental class	C
Mechanical class	M1
Electromagnetic class	E1

## TECHNICAL DATA TEMPERATURE SENSORS

Platinum precision resistor	Pt 1000
Sensor type	45 x 5,2 mm
Temperature range °C	0 ... 105
Cable length	1,5 (opt. 5)

LoRaWAN M-Bus  
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## TECHNICAL DATA FOR FLOW SENSOR

Nominal flow $q_p$	$m^3/h$	0,6	1,5	2,5
Max. flow $q_s$	$m^3/h$	1,2	3,0	5,0
Min. flow $q_i$	$l/h$	12/24	30/60	50/100
Pressure loss at $q_p$	bar	$\leq 0,25$		
Temperature range (*)	$^{\circ}C$	$10 \leq q \leq 90$		
Minimum pressure (to avoid cavitation)	bar	0,3		
Nominal pressure / Peak pressure	PS/PN	16		
Measurement accuracy class (*)		3		
Protection class		54 (68 for energy meter for cooling or energy meter for heating and cooling)		
Installation position		Horizontally or vertically		
Installation point		LoRaWAN: Programmable to either return- or supply pipe wM-Bus: Ordered to either return pipe or supply pipe		
Cable length between calculator and flow sensor (kombination version)	m	1,2		
Installation adapter for temperature sensors		M10 x 1		
Heat carrier (medium)		Water (without additives)		

(\*) optionally

## DIMENSIONS

Height compact version		$H_{max} = 55 \text{ mm}$ $E_{max} = 21 \text{ mm}$
Height combination version	(H1+H2)	$H_{max} = 65 \text{ mm}$ $E_{max} = 21 \text{ mm}$

## CONNECTION SIZES (\*)

Nominal flow	$Q_p$	$m^3/h$	0,6	1,5	2,5
Diameter	DN	mm	15	15	20
Length	L	mm	110	110	130
Height	H1	mm	40	40	40

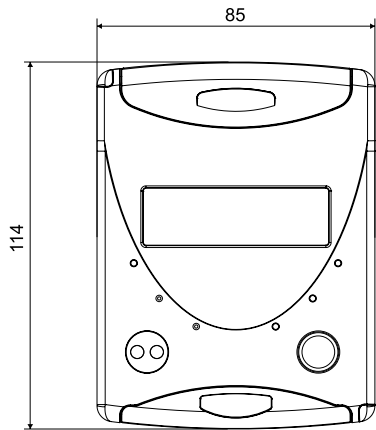
Min. installation point = 30 mm

LoRaWAN M-Bus

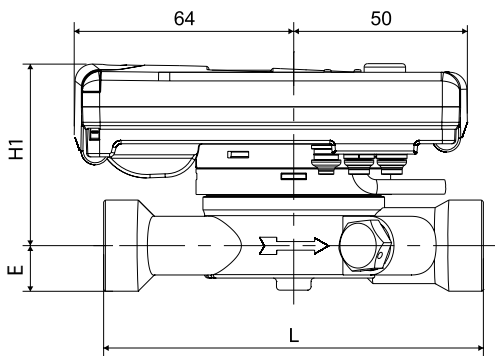
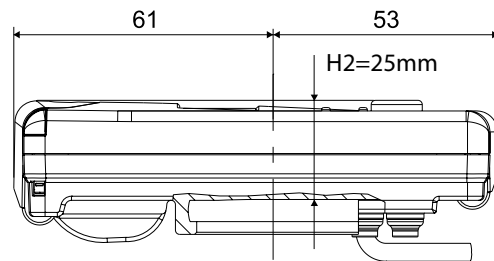
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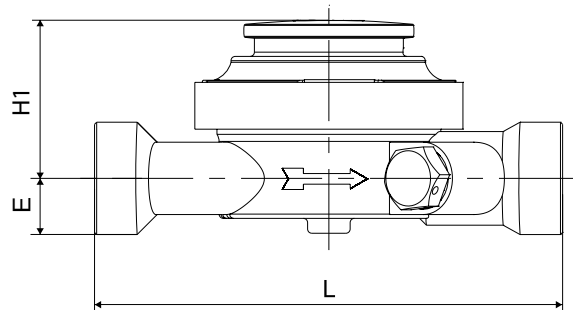
## DIMENSIONS



Dimensions for data calculator



Compact version



Combi version

## PRESSURE LOSS

