



# EW700 Series

## Ultrasonic Heat Meters

DN15...40 for Heating and Chilled Water Applications

### APPLICATION

Resideo EW700 Series ultrasonic heat meters are used for energy measurement of heating or chilled water in residential and small commercial heating and air conditioning systems.

They are available in DN15...40 and have an electronic energy calculator with separate register for heating and cooling energy. They are fitted with an M-Bus interface for integration into M-Bus networks.

### APPROVALS

- MID approved (MI004), class 2

### SPECIAL FEATURES

- Fully resistant to external magnetic fields
- Robust ultrasonic flow sensor
- M-Bus interface as standard




**M-Bus**

### TECHNICAL DATA

General Specifications	
Measuring process:	Electronic compact heat and chilled water meter with ultrasonic flow measurement
Display:	LCD, 8-digit
Display unit:	kWh, MWh
Battery lifetime:	10 years
Interfaces:	M-Bus, IrDA
Approvals:	MID Class 2
Operating Conditions	
Medium:	Heating or chilled water
Medium temperature:	4...95°C
Temperature sensors:	Pt1000 with 2-wire leads
Operating pressure:	max. 16 bar

## CONSTRUCTION

Overview	Components	Materials	
	<b>1</b>	Electronic energy calculator	8-digit LCD
	<b>2</b>	Ultrasonic flow sensor with internal assembly	PPO™
	<b>3</b>	Flow sensor housing	Brass
	<b>4</b>	Temperature sensors for supply and return pipeline with preassembled brass fittings	Brass
<b>Not depicted components:</b>			
	Mirrors	Stainless steel	
	Suitable externally threaded tailpieces with union nuts and sealings	-	

## METHOD OF OPERATION

- **Calculator:** the meter is equipped with a fully electronic energy calculator with separate registers for heating and chilled water energy. It has an eight digit LCD with two decimal places.  
Calculator and flow sensor are connected by a permanently fixed cable (length of cable: 0.04 m)
- **Flow sensor:** the ultrasonic technology of the flow sensor combines high measuring accuracy with long term stability and low starting volume
- **Temperature sensors:** the meter is equipped with a pair of Pt1000 temperature sensors with a length of 1.5 m each
- **Interfaces:** EW700 Series ultrasonic heat meters are equipped with M-Bus and IrDA interfaces as standard

## TRANSPORTATION AND STORAGE

EW700 Series is a precision measuring instrument and must be treated accordingly. The following parameters apply during transportation and storage:

- Keep parts in their original packaging and unpack them shortly before use
- Units should only be transported in their original packaging
- Units should be handled carefully right way up and must not be dropped
- Units should be stored in a clean, dry and dust free environment

Parameter	Value
Environment:	Clean and dust free
Min. ambient temperature:	5 °C
Max. ambient temperature:	55 °C
Min. ambient relative humidity:	0 %
Max. ambient relative humidity:	93 %

## INSTALLATION GUIDELINES

### Setup requirements

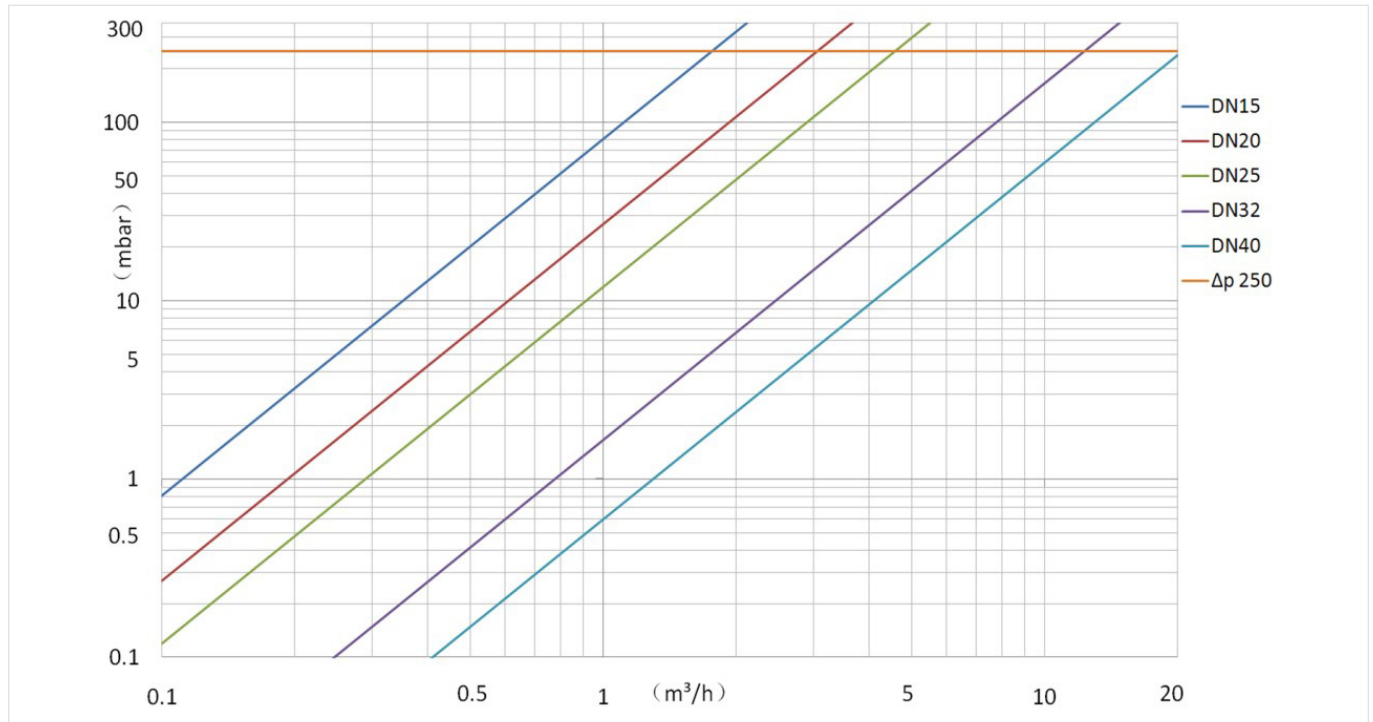
- Calming legs of at least 10 x DN before and 5 x DN after EW700 Series water meters are required but at least 10 x DN between meter and pumps, motorized valves or pipe junctions
- All types may be installed in horizontal or vertical position
- Avoid installation at highest point of system or system part as air may be trapped in meter
- It is recommended to place a ballvalve before and after the meter for easy replacement
- During measurement the meter must be completely filled with water

## TECHNICAL CHARACTERISTICS

### Flow Data

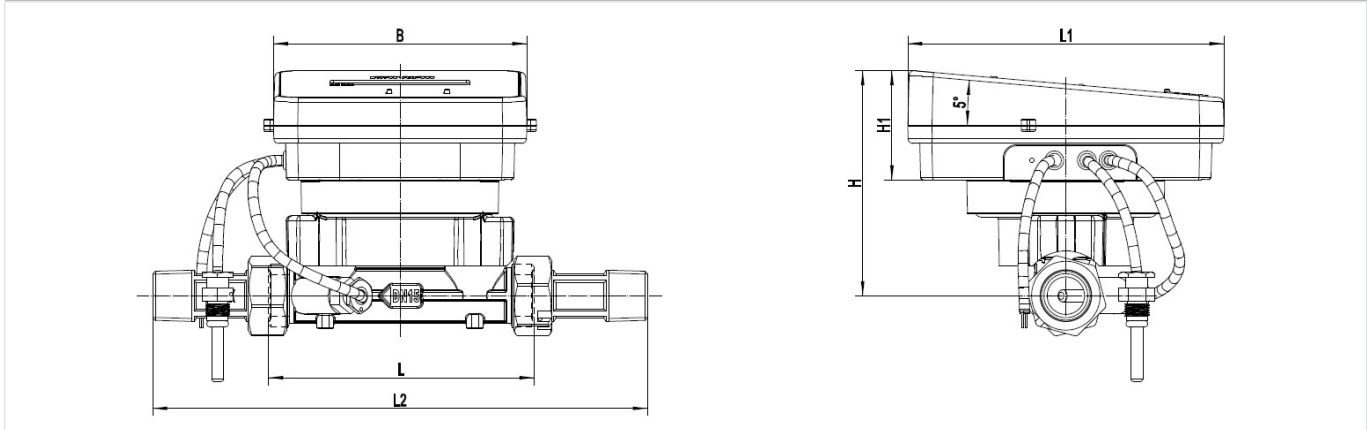
Nominal size diameter:	DN	15	20	25	32	40
<b>Flow rates according to MID</b>						
Starting:	l/h	10	10	20	30	60
Minimum (qi):	l/h	15	25	35	60	100
<b>Permanent (qp)</b>	<b>m<sup>3</sup>/h</b>	<b>1.5</b>	<b>2.5</b>	<b>3.5</b>	<b>6</b>	<b>10</b>
Maximum (qs):	m <sup>3</sup> /h	3	5	7	12	20
Dynamic range (qp/qi):	qp/qi	1:100	1:100	1:100	1:100	1:100
<b>Additional data</b>						
Pressure drop at qp:	mbar	184	207	148	62	58

### Pressure drop characteristics



## DIMENSIONS

### Overview



Nominal size diameter:	DN:	15	20	25	32	40
Dimensions:	Length L	110	130	160	180	200
	Length L1	131	131	131	131	131
	Length L2	203	235	280	300	330
	Whidth B	105	105	105	105	105
	Height H	94	96.5	99	102.5	106.5
	Height H1	45	45	45	45	45
Threads meter:		G 3/4"	G 1"	G 1 1/4"	G 1 1/2"	G 2"
Thread tailpiece:		1/2"	3/4"	1"	1 1/4"	1 1/2"
Thread temperature sensor fitting:		M10 x 1mm	M10 x 1mm	M10 x 1mm	M10 x 1mm	M10 x 1mm

Note: All dimensions in mm unless stated otherwise

## ORDERING INFORMATION

The following tables contain all the information you need to make an order of an item of your choice. When ordering, please always state the type, the ordering or the part number.

Item:	DN size:	Communication:	Ordering Number
EW7001AM M - Bus	15	M - Bus	EW7001AM1200
	20		EW7001AM2000
	25		EW7001AM2600
	32		EW7001AM3900
	40		EW7001AM4400

### For more information

[homecomfort.resideo.com/europe](http://homecomfort.resideo.com/europe)



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Subject to change

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