

# G2 misuratori

## Water and heat meters



### COMPACT2 SONIK

- ❑ Compact electronic heatmeter, suitable for heat consumption measurements for central heating/cooling applications, and for hot water production sites
- ❑ Mid Directive 2014/32/EU, annex MI004
- ❑ Accuracy class EN 1434 Class 3
- ❑ Electromagnetic Class E1/Mechanical class M1
- ❑ Electronic Unit Protection Class IP65
- ❑ The meter is made of 03 main units: single jet flow sensor, split electronic unit (50cm), pair of temperature sensors (1 inserted in the body, 1 loose)
- ❑ Bi-directional inductive uptake (reverse flow)
- ❑ Powered by 3V lithium battery (replaceable), estimated duration of 10 years depending on environmental/working conditions or preset for external electrical power;
- ❑ Possible installation on delivery pipes through software configuration
- ❑ Possible software configuration (without approval) for use with glycols for type and percentage with energy value  $\leq 10$  kWh

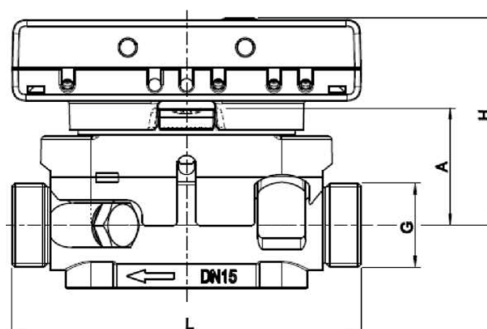


#### Options:

M-bus EN1434-3 output + 3 pulsed inputs for cold and hot water meters  
 M-bus EN1434-3 output Wireless M-bus output 868Mhz OMS + 3 pulsed inputs for cold and hot water meters  
 Double pulsed output energy/volume (only heating version) or energy/energy (heating/cooling version)  
 Double recording for cooling/heating consumption  
 Power 230V or 24V

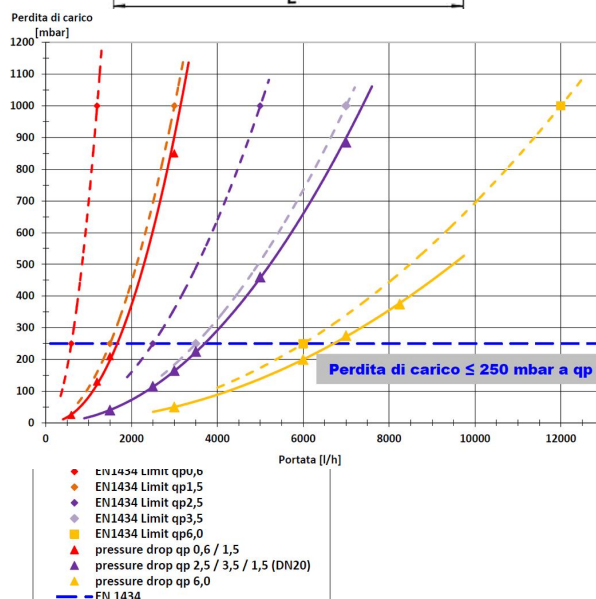
#### Accessories:

TEE couplings 1/2" 3/4" for wet mounting  
 TEE couplings with ball valve 5mm F/F 1/2" 3/4" for wet mounting  
 Kit of couplings (2 nuts/2 tailpieces/2 gaskets) 1/2" x 3/4" / 3/4" x 1"  
 Y strainer 1/2" 3/4"



Wireless M-Bus EN 13757	
4 selectable modes	S1/T1*: unidirectional S2/T2: bidirectional
Compliance to OMS standard	OMS Spec Vol2 Primary v301 (short telegram)
Transmission Power	-5 dBm, 0 dBm, +9 dBm
Encryption AES 128 bit	AES: Advanced Encryption Standard Key length: 128 bit (set and configured for each instrument)*
Telegrams (to be chosen from)	Short telegram* energy (heat/cooling, pulse input 1, pulse input 2), total volume, flow, power, hint flag, return flow temperature, temperature difference*
	Long telegram Energy (heat/cooling, pulse input 1, pulse input 2), hint flag, 15 monthly values
Transmission interval (configurable)	2 minutes* - 240 minutes
Transmission period (configurable)	00:00 - 24:00 / 7:00 - 19:00*
Weekdays (configurable)	Monday - Sunday / Monday - Friday*
Weeks	1 - 4*
Months	1 - 12*
Radio activation date	Not set* (settable by the selection key or by configuration optical kit)
Minimum battery lifetime	7 years (+3 according to the interval of data transmission)

\* factory settings



Continuous development of our products may necessitate changes without prior notice - 09/17

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#### Flow Sensor

Measuring principle	ultrasonic; at sight reading					
Nominal flow $q_p$	$m^3/h$	0,6	1,5	2,5	3,5	6,0
Starting flow	l/h	6	6	12	14	30
Min. flow rate $q_i$	l/h	12	12	25	28	60
Max flow rate $q_s$	$m^3/h$	1,2	3,0	5,0	7,0	12,0
Head loss $\Delta p$ at $q_p$	bar	0,03	0,21	0,115	0,210	0,20
Head loss $\Delta p$ at $q_s$	bar	0,13	0,85	0,46	0,885	0,80
Nominal diameter	mm	DN 15	DN 15	DN 20	DN 25	DN 25
Threads	pollici	G3/4B	G3/4B	G1B	G1 1/4B	G1 1/4B
Lengths	mm	110	110	130	150	150/260
Dynamic interval $q_i/q_p$	-	1:50	1:125	1:100	1:125	1:100
Precision class (MID)		2				
Nominal Pressure PN	bar	16				
Temperature range -heating	$^{\circ}C$	15-90 standard				
(da $q_p$ 1,5 a $q_p$ 6)	$^{\circ}C$	5-50				
Temperatura range - cooling	$^{\circ}C$	15-90 standard heating / 5-50 cooling				
Installation		Input or output / configurable with energy value < 10 kWh				
Installation - position		Any				
Protection grade		IP65				

#### Electronic counter

Fluid temperature range	$^{\circ}C$	0-150 heating / 0-50 cooling (da $q_p$ 1,5 a $q_p$ 6)
Temperature of working environment	$^{\circ}C$	5-55 with 95% relative humidity
Temperature of working environment	$^{\circ}C$	-25-70 (for 168 hour max.)
Temperature of delivery	$^{\circ}C$	-25-55
Temperature of storage	K	3-100
Temperature difference range $\Delta\theta$ heating	K	-3- -50
Temperature difference range $\Delta\theta$ cooling	K	> 0,05
Temperature min. difference $\Delta\theta$ heating	K	< -0,05
Temperature min. difference $\Delta\theta$ cooling	K	> 0,5/< -0,5
Temperature min. difference $\Delta\theta_{HC}$ heating/cooling	$^{\circ}C$	0,01
Temperature resolution	s	2/60; with power supply: 2 s permanent
Dynamic cycle of temperature measurement	s	2
Power supply		Replaceable 3 V lithium battery, ; all models can be connected to a 3 V power supply (230V/24V)
Memory		Non volatile
Data storage		Selectable annual reading data 15 monthly and fortnightly values that can be displayed via wireless M-Bus; 24 monthly and fortnightly values that can be displayed by optical interface or via M-Bus
Record of max. values		Flow and Power
Protection grade		IP65
Electromagnetic class		EN 1434
Calculator housing (h x l x p)	mm	75 x 110 x 34,5

#### Pair of temperature (2 wires)

Platinum precision resistance		Pt 1000
Diameter	mm	5; 5,2; 6; AGFW 27,5; 38; needle sensor 3,5 x 75
Cable length	m	1,5; 3; 6
Installation		Asimmetric; simmetric

#### Dimensions

$q_p$ ( $m^3/h$ )	Diameter nominal	G (")	L (mm)	H (mm)	A (mm)	Weight kg (basic model)
0,6	DN 15	G3/4B	110	65	37	0,720
1,5	DN 15	G3/4B	110	65	37	0,720
2,5	DN 20	G1B	130	65	37	0,770
3,5	DN 25	G1 1/4B	150	65	37	0,930
6,0	DN 25	G1 1/4B	150	67,5	39,5	0,930
6,0	DN 25	G1 1/4B	260	67,5	39,5	1,200

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