

# G. GIOANOLA



## KALOR compact heat meter: for heating and cooling systems

- MID approved to MI004 Directive 2004/22/CE
- Accuracy class: EN1434 class 3
- Protection grade IP54
- Mechanical class M1 / Electromagnetic class E1

- Compact electronic meter, suitable for heat consumption measurements for central heating/cooling applications, where water is used as a heat carrier at max temperature of 90°C
- Model KALOR/15 DN 15 1/2" Qp 0,6 m³/h
- Model KALOR/15 DN 15 1/2" Qp 1,5 m³/h
- Model KALOR/20 DN 20 3/4" Qp 2,5 m³/h
- The heat meter is made of 03 main units: flow sensor, electronic unit, temperature sensor
- Non magnetic flow sensor (the magnet is not submerged in water), the temperature sensor for the return pipe is connected onto the flow sensor body; it is possible to install the flow sensor on return pipe in all positions without need of inlet or outlet straight pipes (it is also available the version for installation on supply pipe – liquid temperature max 90°C)
- The electronic units has an 8-digit digital display plus special symbols; it is powered by a 3V lithium, whose lifetime is 10+1 years; the unit can be rotated of 360° and can be detached from the flow sensor body (max 30 cm), M-Bus optical interface, a 3 level (main/technical/statistics) switch to retrieve data. The system can store up to 15 months (retrieved by display) and 18 months (retrieved by optical interface)
- Temperature sensor are PT 500 5 mm with 1,5 mt cable, 2 wire connection (1 sensor inside body / 1 loose)

Option upon request:

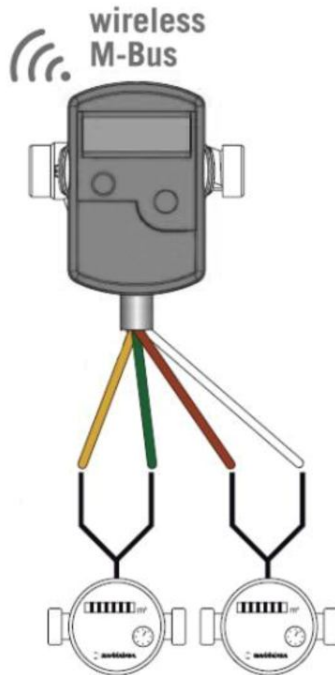
- M-Bus output protocol EN 13757-2 EN 13575-3 + 2 pulsed inputs to connect cold and hot sanitary water meters
- Potential-free pulse output class OA for heat energy or volume –closure time 125ms – max current 120mA-contact resistance (on) max 25 Ohm
- Dual data recording for cooling/heating (please refer to national standards, if applicable, on cooling/heating installations)
- M-Bus Wireless interface on 868Mhz frequency –Mode T1,S1-protocol according to Norm EN 13757-4- OMS

Accessories:

- TEE coupling 1/2" 3/4" for wet installation
- TEE coupling with ball valve 1/2" 3/4" for wet installation
- Kit of couplings (2 nuts/2 tailpieces/2 gaskets) 1/2" x 3/4" / 3/4" x 1"
- Y strainer 1/2" 3/4"

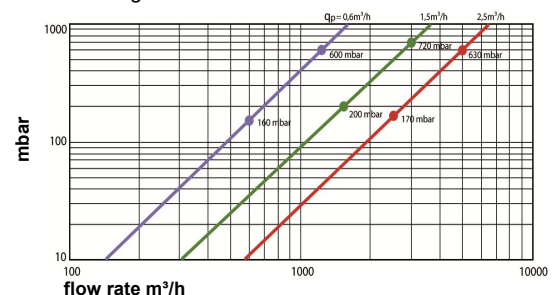
### Wireless Mbus interface (Optional)

Transmission frequency	868Mhz
Power of transmission	Up to 12 dBm
Protocol	Wireless Mbus EN13757-4
Transmission modes available	S1/T1 unidirectional OMS
cryptography	AES128 bits
Available radio telegram	Short according to AMR (OMS) Long (Walk-by)



Technical data	DN	15	15	20
<b>Flowsensor</b>				
Nominal flow rate $q_p$	m³/h	0,6	1,5	2,5
Max flow rate $q_s$	m³/h	1,2	3	5
Head loss $\Delta p$ at $q_p$	bar	0,160	0,200	0,170
Nominal pressure	bar	16		
Minimum accuracy in horizontal	l/h	3,5	7	10
Minimum accuracy in vertical	l/h	4	7	10
Threading		G3/4B	G3/4B	G1B
Temp. range	°C	15...90		
Installation position		horizontal / vertical		
<b>Electronic counter</b>				
Storage temperature	°C	5...55		
Temperature range	°C	1...150		
Temperature difference	K	3...100		
Power supply	Standard	3 V lithium battery		
Working life	Years	10 + 1		
Protection grade	IP	IP54		
Data recording		Daily / E2PROM		
Display		8-digit + special char.		
Interfaces	Standard	Infrared		
	Optional	M-bus		
	Optional	M-bus + 2 additional pulses energy/volume		
	Optional	Uscita impuls energia e/o volume		
	Optional	Wireless Mbus		
<b>Temperature sensors</b>				
Model PT500		Resistance made of platinum		
Connection		2 wires		
Size	mm	5,0 (optional 5,2 or 6,0)		
Cable length	m	1,5 (optional 3,0)		
<b>Dimensions</b>				
Length	mm	110	110	130
Height	mm	93		
Width	mm	75		
Electronic counter splitted	mm	75x110		

Head loss diagram



The company's policy is one of continuous product improvement and the right is reserved to modify the specifications contained herein without notice. 02-16



**G. GIOANOLA SISMA meters**

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