G. GIOANOLA

METERING EFFICIENCY

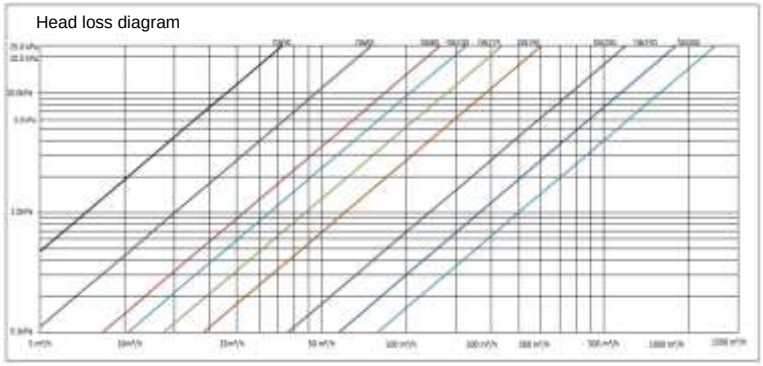
Ultrasonic flow meter for thermal energy for heating and cooling systems FLOW SONIC PLUS

- **Mid approval: MI004**
- **Accuracy class: EN1434 classe 2**
- **Temperature range: 1 °C - 130 °C**

- Flow meter consisting of a metal meausuring insert connected to an electronic volume calculation unit
- Nominal flow rates from Qp 15 m3/h to Qp 600 m3/h
- The meter has a volume-only function that can be interfaced with heating/cooling heat energy calculation units
- Static ultrasonic meter without moving parts with installation on the return circuit
- Installation in any position
- IP68 protection rated
- Measuring range 1:250 from DN50 to DN100 with horizontal installation, other positions DN 1:100
- Not suitable for solutions containing glycol

TECHNICAL DATA	
Mechanical/electromag class .	EN1434/MID E2+M2 (optional E1+M1)
Operating temperature (℃)	Storage temperature : -20～55 °C Ambient temperature : 5～55 °C
battery	3.6V 10+1 (*)-year lithium battery life
External power supply	(5~24)VDC
Mounting position	Any position
Pulse length	100mS -10Hz max
Communication interface	Open Collector
Pulses	Max. input voltage : 12 VDC Max. input current : 10 mAdc
Cable length	Default 3m (3m～20m optional)
Operating pressure	16 bar flanged connection (opz. 25 bar)
Max. installation height	2000 mt above sea level
Recommended T° range	+10°C...+130°C heating
(*) Battery life	According to environmental conditions

Head loss diagram



DN	mm	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300
Nom, flow rate Qp	m³/h	15	25	40	60	100	150	250	400	600
Max flow rate Qs	m³/h	30	50	80	120	200	300	500	800	1200
Min flow rate Qi	m³/h	0.15	0.25	0.4	0.6	1	1.5	2.5	4	6
Starting flow	m³/h	0.01	0.02	0.03	0.05	0.08	0.	0.2	0.3	0.4
Pulses K	L/pulse	10	10	10	10	100	100	100	100	100
Pulse duration	ms	100	100	100	100	100	100	100	100	100
Nominal pressure	PN	16	16	16	16	16	16	16	16	16
Protection rating	IP	68	68	68	68	68	68	68	68	68

- Optional data interface for transmission of volume, flow rate, flow direction and device status
- Can be interfaced with any commercially available thermal energy calculation unit compatible with 100ms Open Collector output signal
- Can integrate temperature and pressure sensors with ½" thread connection
- Optional PN25

DIMENSIONIS FOR PN 16 VERSION											
Nom size	**DN**	**mm**	**50**	**65**	**80**	**100**	**125**	**150**	**200**	**250**	**300**
Length	L	mm	200	200	225	250	250/350	300/350/500	350/500	400/600	450/500
Diameter	D	mm	165	185	200	220	250	285	340	405	460
Height	H	mm	221	232	253	273	360	390	450	510	565
Passage	K	mm	125	145	160	180	210	240	295	355	410
D HOLES	nxφL	mm	4xΦ18	4xΦ18	8xΦ18	8xΦ18	8xΦ18	8xΦ22	12xΦ22	12xΦ26	12xΦ26