

G2 misuratori

water meters



SDF METER

- MID approved according to directive 2004/22/CE
- Dual beam ultrasonic technology for precise and ultra reliable metering
- Extremely sensitive and accurate in low flows; turndown ratio – better then 1:300
- Working pressure: 16 bar
- Liquid working temperature: Water 50°C
- Ambient operational Temperature: -25°C + 55°C
- The water meter can be installed in any position. The meter must be fill with water all the time; non special requirements for installation (U0-D0)
- Bi-directional – including bi-directional outputs; flexible data formats includine flow directions, flow rates, volumes and leak direction; alerts and statistics features
- AMR and cellular networks ready - programmable Display (units and outputs resolution)
- Dual Digital high resolution output and Analog output (4-20mA)
- EMI/RFI Protection



DISPLAY



AVAILABLE DN

DN 50 (2") flanged and threaded
 DN 65 (2.1/2") flanged
 DN 80 (3") flanged
 DN 100 (4") flanged
 in development DN 150 (6") and 200 (8")

APPLICATIONS

Waterworks and industrial applications

CONSTRUCTION

Cast Iron – epoxy coated drinking water approval

- Flow direction
- Alarm/Error
- Output mode
- Coil/3G/GSM Active comm.
- m³ Volume units
- m³/h Flow rate units
- Leak indicator
- Battery level

TECHNICAL SPECIFICATIONS

Max working pressure	16 bar
Liquid temperature	0,1-50°C
Precision class	ISO 4064 rev. 2005
Configuration	Compact - The display is built in to the unit
Power source	2 D size Li-battery 10 years life time
Environmental protection	IP68, ambient operat. temp. -25°C +55°C
Display units	Multi line 9 digit LC display (Programmable – m ³ , USG, CuFt. Acre Feet, Flow rate and volume
Output (optional)	Programmable dual open collector pulse output. Powered loop 4-20 mA

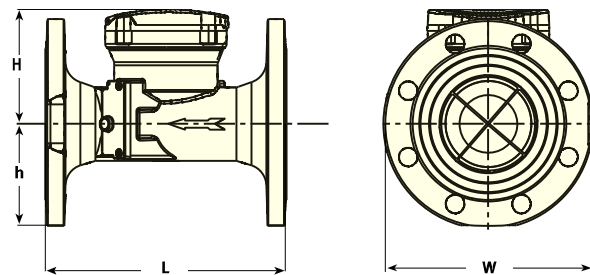
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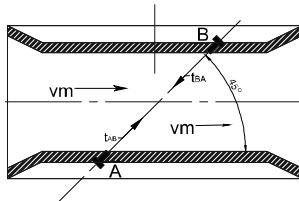
Technical data	DN in mm			
	50 (*)	65	80	100
Maximum peak flow (for short time) (m ³ /h)	75	90	120	200
Q ₄ (m ³ /h)	65	80	100	150
Q ₃ (m ³ /h)	40	50	63	100
Q ₂ (m ³ /h)	0,125	0,150	0,200	0,320
Q ₁ (m ³ /h)	0,060	0,070	0,080	0,100
Starting flow (m ³ /h)	0,015	0,015	0,015	0,015
R10-Q ₃ /Q ₁ (m ³ /h)	500	500	500	500
L – Length (mm)	200	200	225	250
W – Width (mm)	165	185	200	220
H – Height (mm)	154	120	120	120
h – Height (mm)	40	90	90	103
Weight (kg)	9	11,5	13	15

Meter performance acc. ISO 4064 rev. 2005	DN in mm		
	50	80	100
Q ₄ (m ³ /h)	50	80	125
Q ₃ (m ³ /h)	40	63	100
Q ₂ (m ³ /h)	0,125	0,200	0,320
Q ₁ (m ³ /h)	0,080	0,125	0,200
R10-Q ₃ /Q ₁ (m ³ /h)	500	500	500



*) Available also mod. DN 50-2" with threaded connections and length mm 300

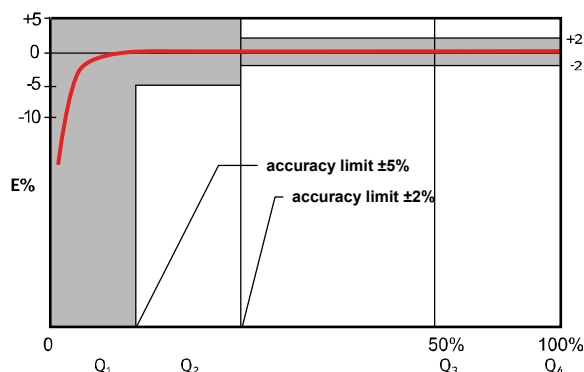
Measuring principle



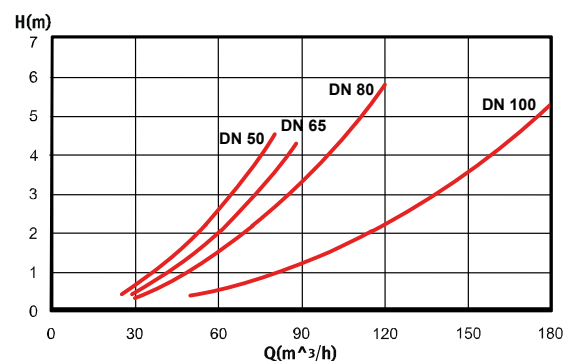
Imagine two identical swimmers crossing a river on the same diagonal line, one with the flow and the other against the flow. The swimmer moving with the flow needs much less time to reach the opposite bank. Ultrasonic waves behave exactly the same way. The sound wave that flows in the direction of the stream moves faster than the one that flows against the stream. The transit times TAB (Transit time of ultrasonic waves from sensor from sensor A to sensor B) and TBA (from sensor B to A) are measured continuously. The time difference (TBA-TAB) is directly proportional to the mean flow velocity (Vm) of the product. The flow rate is a result of the velocity multiplied by the cross section of the size of the meter.

Pulse per selected quantity	m ³	USG	Cuft	A.F
	Max pulse width [ms]	Max pulse width [ms]	Max pulse width [ms]	Max pulse width [ms]
0,0001	1			
0,001	10			125
0,01	90		3	125
0,1	125	4	32	125
1	125	40	125	125
10	125	125	125	125
100	125	125	125	125
1000	125	125		

Typical accuracy curve



Head loss diagram



Continous development of our products may necessitate changes in details without prior notice.