WOLTMANN COLD WATER METER FLANGED PN16 MID R100

Woltmann water meter MID R100 cold water with 360° rotating dry dial for water distribution.
Removable insert and sealed counter mechanism with magnetic transmission.
Horizontal or vertical position without straight length upstream and downstream needed (U0/D0).
Pre-equipped for radio MBUS, MBUS or pulse transmitter.

Size :	DN50 to DN200
Connection :	Flanged PN 10/16 RF (PN16 for DN200)
Min Temperature :	+0°C
Max Temperature :	+50°C
Max Pressure :	16 Bars
Specifications :	Removable insert Dry dial Magnetic transmission 360° rotating dial Pre equipped radio MBUS, MBUS or pulse transmitter
Materials :	Cast iron body

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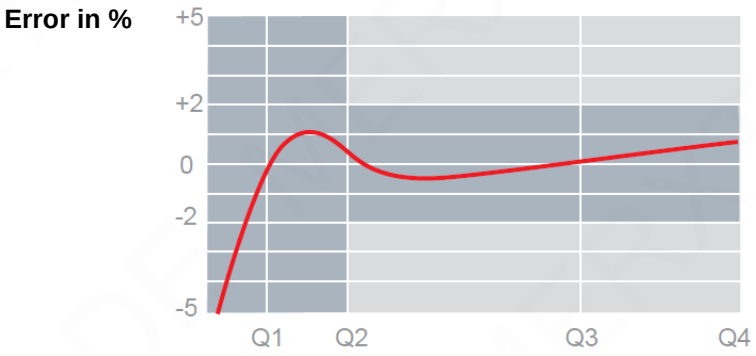
SPECIFICATIONS :

- Horizontal Woltmann with interchangeable insert
- **MID R100 range** in horizontal or vertical position(respect the flow direction indicated by the arrow)
- Horizontal or vertical position without straight length upstream and downstream needed (U0/D0)
- 360° rotating dry dial
- Magnetic transmission
- Direct reading on 7 numerical rolls
- With lid
- Cast iron body
- Epoxy resin blue painting RAL 5015, 80-100 µm thickness
- Ingress Protection rating IP68

USE :

- Water distribution
- Min and max temperature Ts : 0°C to +50°C
- Max Pressure Ps : 16 bars

TYPICAL ERROR CURVE :



Q1 : Min. flow
Q2 : Transitional flow
Q3 : Nominal flow
Q4 : Max. flow

RANGE :

- Cold water meter flanged PN10/16 **DN** 50 to 200

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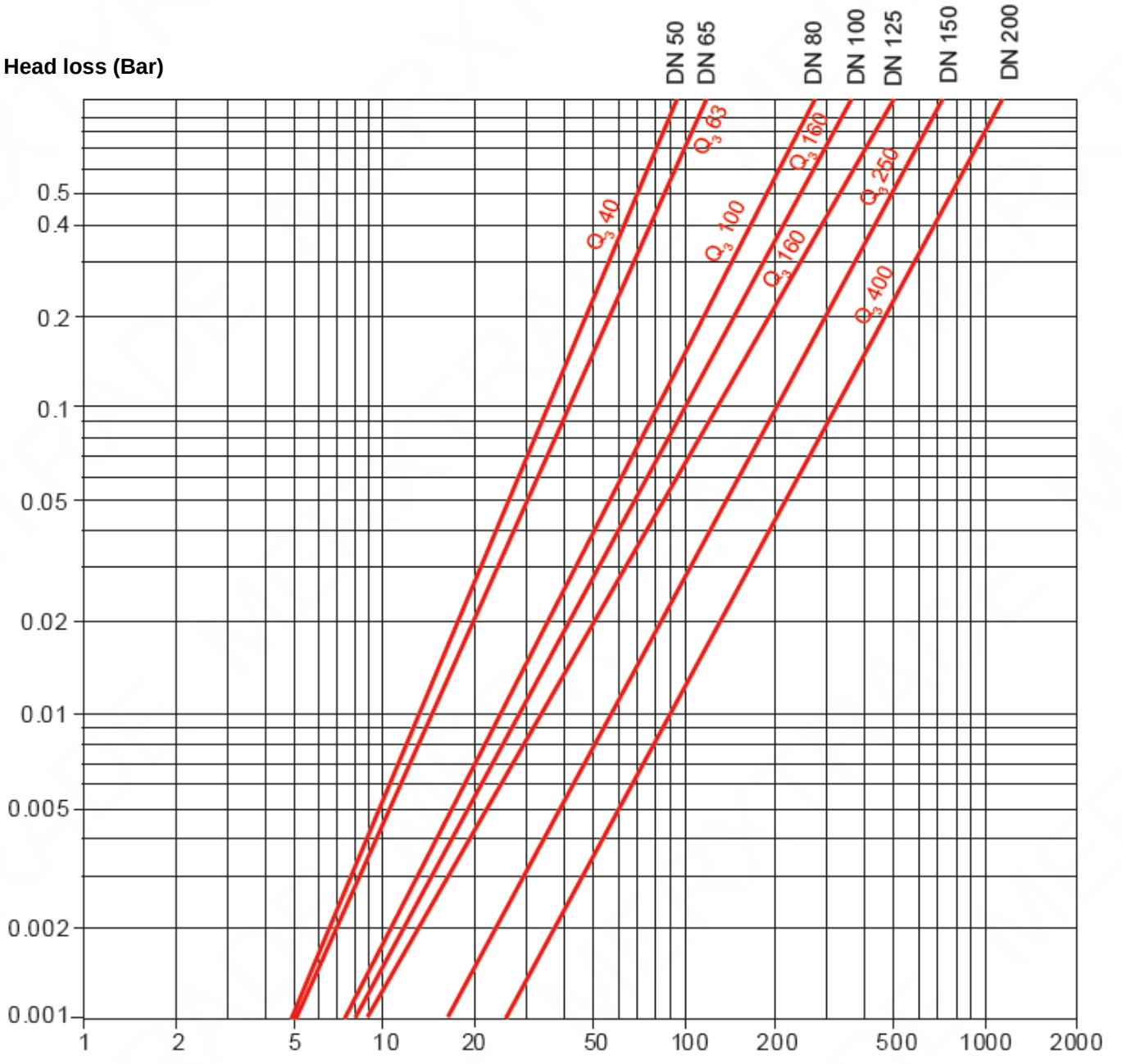
HEAD LOSS GRAPH :



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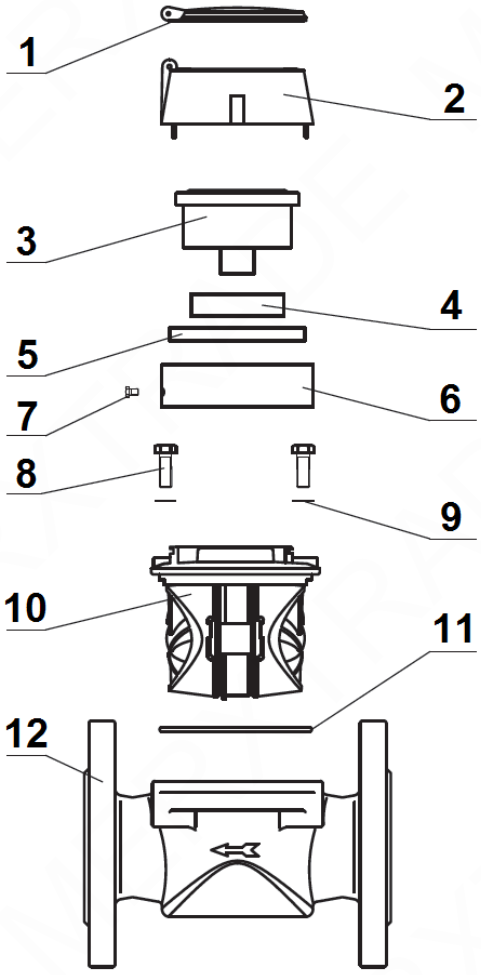
MATERIALS :



Item	Designation
1	Lid
2	Cup
3	Counter with glass 6 mm thickness
4	Antimagnetic ring
5	Plate
6	Ring cup
7	Sealing screw
8	Screw
9	Washer
10	Mechanism
11	O ring
12	Cast iron body

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ACCESSORIES :

- LCD counter

- LCD counter with reset

- Double LCD counter with reset

- Radio MBUS wireless module

- MBUS wired module

- Pulse transmitter

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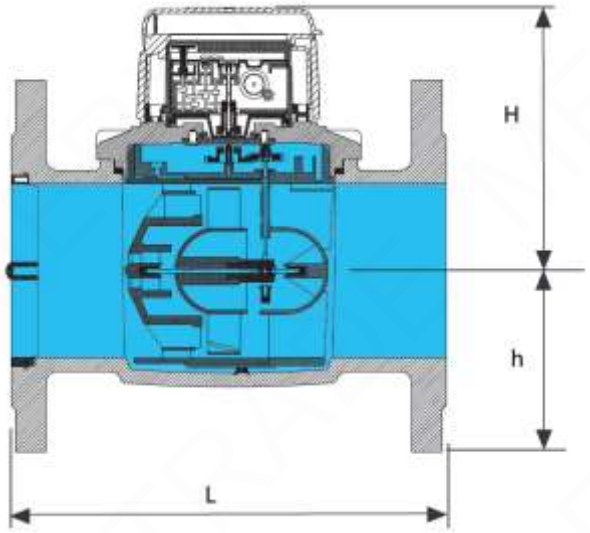
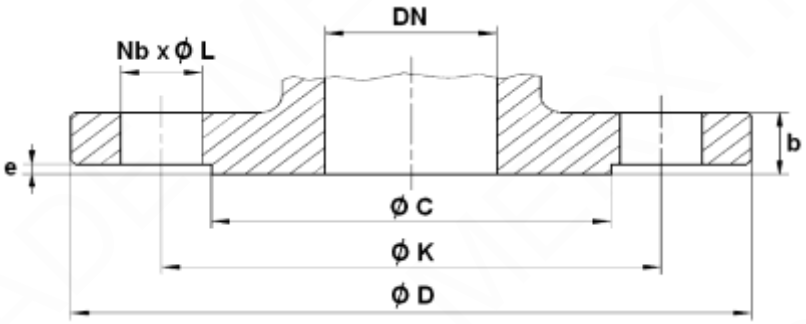
SIZE (in mm) :



DN	50	65	80	100	125	150	200
L	200	200	225	250	250	300	350
H	78	86	95	104	117	133	162
H	130	130	152	152	152	181	181
Weight (Kg)	8.5	9.5	13.5	15	18	30.5	43

FLANGES SIZE (in mm) :



DN	50	65	80	100	125	150	200
Ø C	102	122	138	158	188	212	268
Ø D	165	185	200	220	250	285	340
Ø K	125	145	160	180	210	240	295
Nb x Ø L	4 x 18	4 x 18	8 x 18	8 x 18	8 x 18	8 x 22	12 x 22
b	20	18	20	20	22	22	24
e	2	2	2	2	2	2	2

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TECHNICAL FEATURES :

DN	50	65	80	100	125	150	200
Max flow Q4 max (m3/h)	50	78.75	125	200	200	312.5	500
Nominal flow rate Q3 (m3/h)	40	63	100	160	160	250	400
Min flow Q1 ± with 5% error (m3/h)	0.40	0.63	1.00	1.60	1.60	2.5	4
Transitional flow rate Q2 with ± 2% error (L/h)	0.64	1.008	1.6	2.56	2.56	4	6.4
Min reading (l)	0.5	0.5	0.5	0.5	0.5	5	5
Max reading (m3)	9.999.999						
Max head loss ΔP at nominal flow rate Q3 (bar)	0.25	0.40	0.25	0.40	0.40	0.16	0.40

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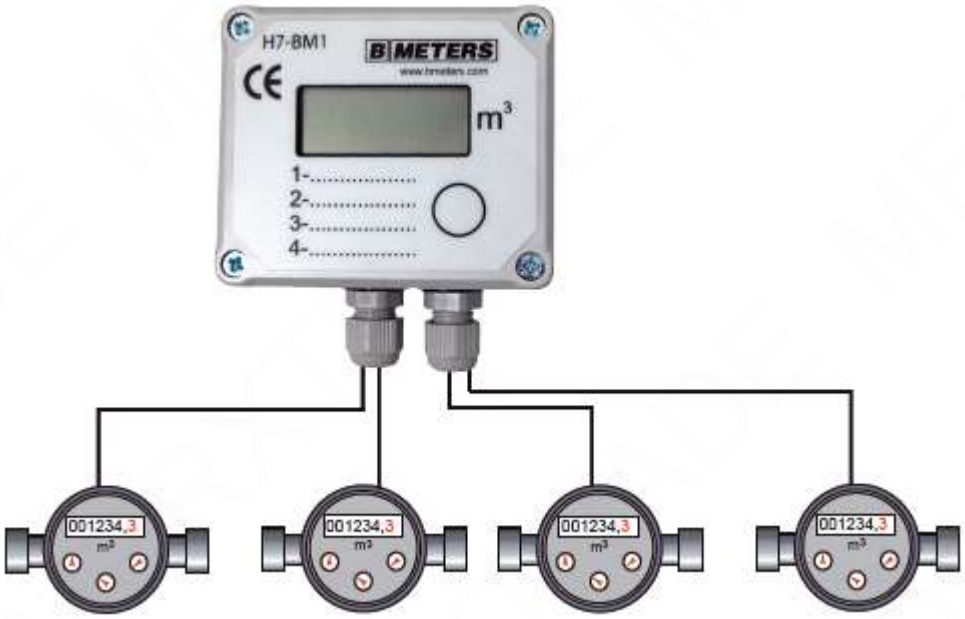
LCD COUNTER (OPTION) :



Use of this device allows grouping and reading of the impulse signals generated by up to 4 water meters.
It is possible to set the pulse value for each input signal independentely.

- Up to 4 entries
- Max reading : 1999.999 m^3
- Settable impulse values : 1, 2.5, 10, 25,100 or 1000 L/impulse
- Wall mounting with 2 screws Ø6 mm
- Power supply by lithium battery (8 years lifetime)
- External dimensions : 89 x 73 x 42 mm
- IP protection : IP54

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LCD COUNTER SETTING :

H7-BM1 is equipped with 3 buttons and LCD display.
K1 button is located externally near LCD display.
K2 and K3 buttons are located internally as showed in the following picture.

K1 button is used in normal operating mode, for switching the display view to another channel.

Setting the pulse value

- Press button K1 for choosing the correct channel.
- Wait until the reading value appears.
- Press the button K2, the display shows the current pulse value.
- It is possible to change the pulse value by pressing button K3.
- For setting the value you can press button K2 or wait a few seconds.

Set the starting reading value

- Press button K1 for choosing the correct channel
- While the display show the channel number, press button K2. In this way the figure starts flashing indicating the quantity of liters.
- Press button K3 for setting the desired starting reading value. You can press button K2 for moving to the second position.
- Repeat the previous operation for all the positions showed on the display. After pressing button K2 on the last position, the reading value is stored.

Attention

It is possible to set the starting reading value after having initialy set the pulse rate.

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STANDARDS :

- Manufacturer certified ISO 9001 : 2015 and ISO 14001:2015
- Designing according to EN 14154:2005+A2:2011 and OIML R49:2013
- Flanged according to EN 1092-2 PN16
- DIRECTIVE 2014/32/UE MID
- French water agreement **A.C.S. N° 24 ACC LY 686**

ADVICE : Our opinion and our advice are not guaranteed and merxtrade shall not be liable for the consequences of damages.
The customer must check the right choice of the products with the real service conditions.

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INSTALLATION INSTRUCTIONS OF WATER METER

BEFORE INSTALLATION :

Pipe-line must be cleaned and free from residual of weldings,rubbish,shaving and every kind of extraneous materials.
Pipe-line must be perfectly aligned and their support properly dimensioned so that there's no external constraint.
Tighten the bolts in cross
Use the right bolt tightening so that the ends won't be damaged.

It's recommended to install a strainer before the water meter if there are some solid particles in the water.
Installation of the meters in the vicinity of pumps must be avoided. It is advisable to install the meter as far as possible from them.

Make sure all the water supply outlets, served by the meter, sit higher than the meter itself otherwise its metering precision could be altered. The highest position of the count itself as the recording of the counter may not be reliable. To address these possibilities, simply place the meter after a 'large upward curve that ensures always a pipe completely filled with water (Fig 1). This will prevent air bubbles that could affect the accuracy of measurement

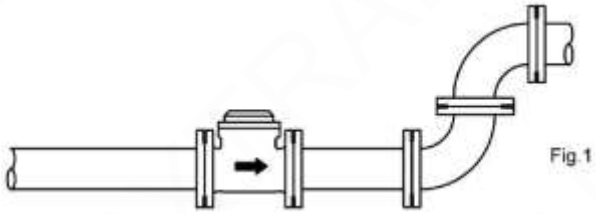


Fig.1

Respect the flow direction indicated by the arrow.
We recommend installing a valve downstream and one upstream of the meter in order to facilitate a possible maintenance of the meter itself, without having to drain the complete pipeline.
During the water meter commissioning it is advisable to open first the valve placed downstream of the meter (so to flood the mechanical part of the instrument) and then slowly open the valve located upstream of the meter. This will prevent possible water hammers or acceleration of the flow that could damage the moving parts of the instrument.

TESTS :

During the tests under pressure, water meter must be removed to avoid overpressure risks.

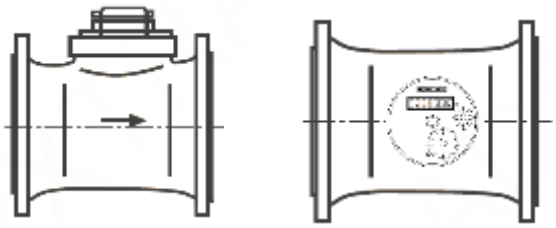
INSTALLATION

Please make the water flow slowly to avoid water hammer.
The meter pit shall be protected from flooding, rainwater and frost.

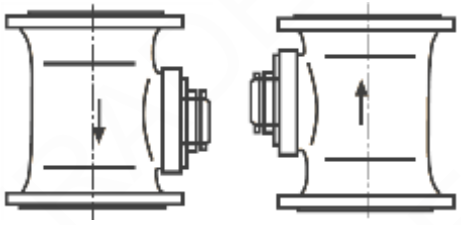
INSTALLATION POSITIONS :

The counter should be normally placed in an horizontal position
The counter can be installed vertically with ascending flow or tilted without suffering any damage.
If necessary, the counter can be installed vertically with descending flow but the pipe should always be full of water in this case.
NOTE: Never install the water meter in horizontal position with totalizer in upside down orientation.

HORIZONTAL :



VERTICAL* :



*** : In vertical position, the pipe should always be full of water.**