



USER MANUAL

Multi Jet Water Meter Dry Type

MODEL: MD-A / MD-AP



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TECHNICAL SPECIFICATIONS

APPLICATION:

This range of water meter is used to measure the total quantity of cold potable water passing through the pipeline.

FEATURES:

Brass or Plastic meter body, Multi-jet, dry dial, with external regulating device; Low transmission resistance; Magnetic shield; Long term working life

COMPLIANCE WITH DIRECTIVE AND STANDARD:

DIRECTIVE 2014/32/EU

OIML R 49-1 2013, OIML R 49-2 2013

EN14154-1: 2005 + A 2: 2011

WELMEC 8.11, WELMEC 11.1

ISO4064: 2005

WORKING CONDITION:

Water temperature for cold water meter: $\leq 50^{\circ}\text{C}$

Pressure: $\leq 1.6\text{Mpa}$

Environment classes: - climatic (-10°C to $+55^{\circ}\text{C}$),
 - mechanical (M1),
 - electromagnetic (E1)

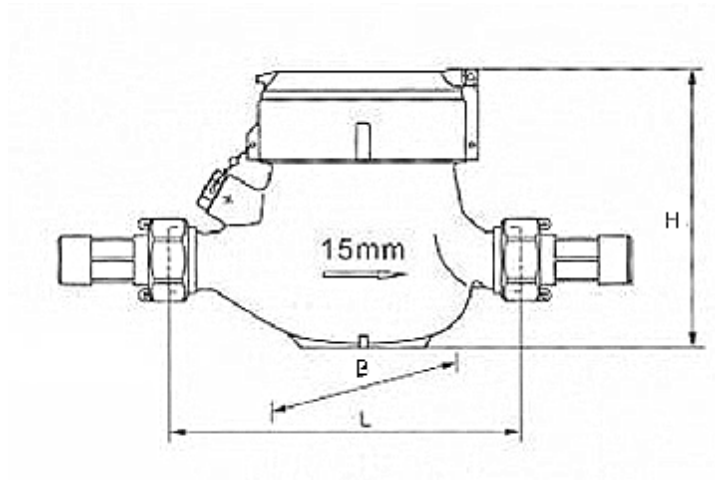
MAX PERMISSIBLE ERROR:

- a) In the lower zone from Q1 inclusive up to but excluding Q2: $\pm 5\%$
- b) In the upper zone from Q2 inclusive up to and including Q4: $\pm 2\%$

SPCIFICATIONS:

DN	Q4	Q3	R80		R100		R125		R160	
			Q2	Q1	Q2	Q1	Q2	Q1	Q2	Q1
mm	m ³ /h		l/h							
15	3.125	2.5	50	31.25	40	25	32	20	22.5	15.62
20	5	4	80	50	64	40	51.2	32	40	25
25	7.875	6.3	126	78,75	100,8	63	80,64	50,4	63	39,375
32	12,5	10	200	125	160	100	128	80	100	62,5
40	20	16	320	200	256	160	204,8	128	160	100
50	31,25	25	500	312,5	400	250	320	200	250	156,25

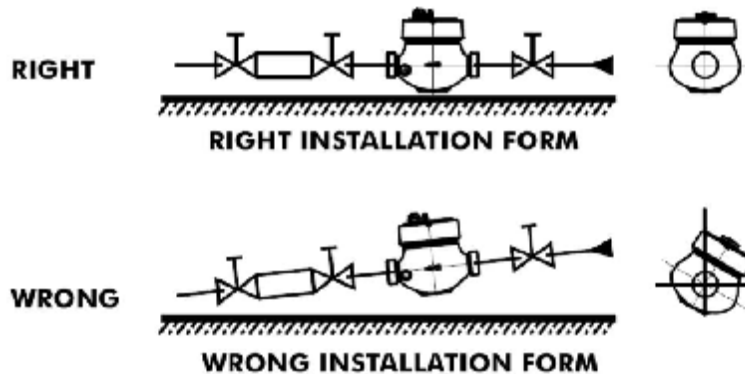
DIMENSION



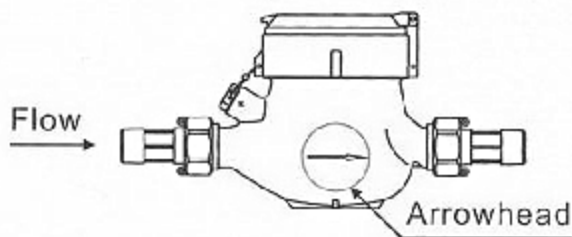
Type	Size (mm)	L (mm)	B (mm)	H (mm)	Connection Thread (inch)
MD-A / MD-AP	15	165/190	99	104	G 3/4B
	20	190	99	106	G 1B
	25	225/260	103	114	G1 1/4B
	32	230/260	104	117	G1 1/2B
	40	245/300	124	147	G2B
	50	280/300	125	172	G2 1/2B / Flange ISO7005

INSTALLATION STATEMENT

1. The nominal diameter of water meter should be selected according to the volume of water passing through the pipeline
2. Attention should be paid that cold water meter must not be used for hot water and caustic liquid
3. The water meter is recommended to be installed in a horizontal position with the register face upwards



4. The location for the water meter installation should be protected from the affection of sunshine and frozen. The water meter should not be installed under the surface of water
5. The meter must be installed with the water flow direction same as the arrow indicated on the meter body (see following drawing)



6. In order to keep the water meter in good working condition, the pipeline should be clear up before installing the meter
7. Use the couplings, coupling nuts and gaskets to connect the water meter with the water pipe in both ends
8. The valves should be installed in front and back of the water meter
9. During the service time, keep the water meter lid closed. Keep the surface of the register clean to make clear reading during the long time service

VERIFICATION PROCESS

Calibration:

- ① Place the water meters on the test bench, start water flow and wait until there is no air in the pipe. Then stop water flow.
- ② Read the initial index of tested water meters, make a flow rate (Q3/Q2/Q1) and when related water magnitude has been passed, stop water flow. Then reading final index of tested water meters. And calculate relative index error of tested water meters with following formula:

$$\frac{[(V_f - V_i) - V_r]}{V_r}$$

V_i : Initial index of the water meter

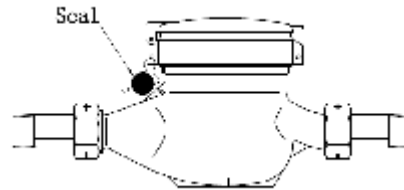
V_f : Final index of the water meter

V_r : Real volume (measured by the reference device)

Note: with automatical test table, there is no need to read initial and final index

Sealing:

The sealing mark will be one of followings:



CUSTOMER ATTENTIONS

- Damages and defects which take place during the loading , unloading and transport after the product is delivered to the consumer.
- In the event that there are alterations on the guarantee certificate ,the original serial number on the product is removed or altered.
- Damages and defects caused by use errors.
- Defects in the meters which are not protected by the negative effects of the external atmospheric conditions (mechanic impact,rain and dust,freezing,direct sunlight)
- Defects caused by the foreing objects in the installation
- Meters with removed seals are not covered by guarantee.

The Repairs Of The Defect Not Covered By The Above Mentioned Guarantee Are Done With Charge



MAINTENANCE

There is an obligation of maintenance and calibrations every six years at the repair and calibration stations authorized by the Ministry department. And the repaired and maintained water meter should be tested again according to the standard flow rate listed in the Main Technical Data before reinstalled.

GUARANTEE

1. The guarantee will start from the delivery time to customers.
2. The water meters will be guaranteed for one year under the right use, and no intervention is made by third people other than the service staff authorized by AIMEI for maintenance, repair or another reason.
3. The fail water meter without no intervention by others, will be repaired free of charge in the guarantee period. And the time is added into the guarantee time, but maximum is 30 working days. The time will be recorded from the date of reporting to the sales of manufacturer.
4. The replacement will be provided with free of charge, if same problem occurs twice or separated problems occurs in guarantee year.
5. The defects caused by usage of the product not conforming to the points mentioned in the user manual are not covered by this guarantee.

SERIAL NO.: _____



Declaration of conformity of the Council Directive 2014/32/EU

Number of declaration: _____

We, the manufacturer, herewith declare that this stated device conforms to the Council Directive 2014/32/EU.

Meter Type: Water Meter

Model No.: MD-A / MD-AP

Manufacturer: Ningbo AIMEI meter manufacture Co., Ltd

Address: 68 West Town Road Shangtian Town Fenghua City Zhejiang China-315511

No. of EC-type-examination certificate: SK 13 - 092 MI - 001

No. of D Module: SK14-042D

Notified Body: Slovak Legal Metrology, 1432

The following harmonized European standards, normative documents and guidelines have been applied on the water meter:

EN14154-1

EN14154-2

EN14154-3

OIML R49-1

OIML R49-2

OIML R49-3

Decision 768/2008/EC

WELMEC 8.6

ISO4064

This declaration of conformity is only valid with the metrological stamp "M", the year "XX", and the number of notified body "1432" as below:



The notified body SLM, identification number 1432, approved the quality system of production process of manufacturer AIMEI.

Signed for and on behalf of AIMEI

Signature:

Place: Fenghua

Name: Dong Yinhui

Position: General Manager

Date: 2016-04-20