



APPLICATIONS

This water meter is a rotary vane type cold water meter, manufactured according to National Standard GB/T778-96 (equivalent to ISO 4064.1,2,3) <Cold Water Meter>. It can be used for measuring the water flow capacity passing through water supply pipes, and can only be suitable for one-way flow. It can not be used for hot water, polluted water containing impurities, and the viscous or corrosive liquids.

STRUCTURAL PRINCIPLE

This water meter is mainly composed of outer case, vane wheel measuring mechanism and indication mechanism. After water flowing into water meter, it enters into vane wheel box at the bottom of measuring mechanism. As water hole flows along the tangential direction, the water lashes against the vane wheel and makes it rotated. Water flows from the water outflow hole of vane wheel (rotation speed of vane wheel is proportional to velocity of water flow) and drive the reduction gears of indication mechanism to operate. Readings of counter indication total water capacity flowing through water meter

APPLICABLE CONDITIONS

water temperature: 0~30 °C ;
water pressure: Less than 1 Mpa.

INSTALLATION & OPERATION

1. When select caliber size of water meter, pay attention to its permanent flow rate. It should be approx. Equal to the flow rate of the pipes.
2. Installation location of water meter should be easy-to-mount or dismount and easy-to-read, avoid being sunlight exposed, or frozen. When water meter is

being frozen, it should be dismounted and put in the room, and be naturally cooled. Baking it by fire or pouring with hot water is strictly prohibited.

3. Water meter should be installed horizontally. Its arrow direction should be in line with water flow direction. During installation, for easy mounting or dismounting of it, the expansion pipe made by our factory can be used, as it can compensate deviation of length during installation.

4. For the new installed pipes, the small stones, sands and silts, linen threads and other impurities inside pipes should be cleared away so as to avoid troubles occurred inside water meter.

5. When water meter is installed near the inlet pipes of boiler, attention should be paid to hot water. Water meter should not be scalded by hot water.

6. If water meter is of wet type, all the components of water meter are submersed in water. It is a normal phenomenon when water or air bubble occurred beneath the glass of water meter.

7. During stop using water if the water meter runs a very little bit or the indication needle fluctuates up and down a little bit, and sounds "ta ta..." it is caused by fluctuation of water pressure in pipelines.

8. After a long time used, the impurities or rusts inside pipeline can block the strainer mesh, or enter into water meter to cause the readings error, or to influence normal operation of it. It should be periodically cleaned and checked.

METHODS FOR READINGS

1. Scaled fundamental unit of water meter is m³. 1m³ means 1 cubic meter. When the readings, red needle or red word wheel is less than 1 cubic meter, users could neglect it is well.
2. In needle-indicating type water meter,

the marks of ×1, ×10, ×100, ×1000 under word circle, denote the unit, the tenfold, the hundredfold, and the thousandfold of the readings of water flow capacity accordingly. If the needle is just right located on the scale mark line, reading on the scale mark line is the right value, when the indication needle is located between two scale mark lines, the smaller scale mark value should be read. For example, indication needle is locating between "3" and "4", the correct reading should be "3". When read out the readings from high place to low place separately, then, it is the accumulated water consumption capacity.

3. In the word-wheel-type water meter, black numbers on the word wheel directly shows the accumulated water consumption capacity.

4. When the readings of this term minus the readings of last term, the subtrahend is the water consumption capacity of this term.

DESCRIPTION OF MODELS

According to the reading method, there are two types of water meter in our factory, i.e. type C and type E. Type C: needle-indicating type Type E: word-wheel-type

PRODUCTS GUARANTEE METHOD

1. Any mechanical part being spoiled or failure (except being frozen) because of poor quality of processing but installed in reasonable and the operating flow in normal, the factory shall be responsible for mending, refunding, or exchanging without paying under the condition of keeping the lead-sealing in complete.
2. If the failure or spoil of water meter caused by clients' reason, the factory shall provide mending service on clients' own paying.
3. The products guarantee is valid for one year from the date of selling.

MAIN TECHNICAL PARAMETERS

Nominal Caliber Size (mm)	Measuring grade	Permanent flow rate Q.P.	Overload flow rate qt	Minimum flow rate min	Transitional flow rate Q.P.	Reading of Minimum place	Reading of Maximum place
		M3/h			M3		
15	Grade A	1.5	3	0.06	0.15	×0.0001	×1000
	Grade B			0.03	0.12		
20	Grade A	2.5	5	0.1	0.25	×0.0001	×1000
	Grade B			0.05	0.2		
25	Grade A	3.5	7	0.14	0.35	×0.0001	×1000
	Grade B			0.07	0.28		
40	Grade A	10	20	0.4	1	×0.001	×10000
	Grade B			0.2	0.8		
50	Grade A	15	30	1.2	4.5	×0.001	×10000
	Grade B			0.45	3		
80	Grade A	30	60	2.4	9	×0.01	×10000
	Grade B			0.9	6		
100	Grade A	50	100	4	15	×0.01	×10000
	Grade B			1.5	10		
150	Grade A	100	200	8	30	×0.01	×10000
	Grade B			3	20		

Note: Error limit of readings is in accordance with the following stipulation

Low zone(min)
from minimum flow rate (qmin0 up to (not including) transitional flow rate $\leq \pm 5\%$

High zone(qt),
from(including) transitional rate(qt) up to over load flow rate (included) $\leq \pm 2\%$

CONFIGURATION DIMENSIONS & CONNECTION DIMENSIONS

Nominal Caliber size(mm)	Length(mm)		Height(mm)		Width (mm) (=)	Connect ed pipe
	L (=)	I	H (=)	H(± 1)		
15	259	165	104	34.5	100	G1/2B
20	299	195	106	37	100	G3/4B
25	345	225	112	41.5	104	G1B
40	373	245	147	61.5	126	G11/2B

Configuration dimensions of and connection dimensions of small caliber water meter are shown in this table.

Nominal Caliber Size	Length L	Width W	Height H	Connection flange*			
				I		II	
				D	d	D	d
50	280	160	175	125	4- $\Phi 18$	125	4- $\Phi 18$
80	370	276	257	168	4- $\Phi 18$	160	8- $\Phi 18$
100	370	280	277	195	4- $\Phi 18$	180	8- $\Phi 18$
150	500	400	370	247	6- $\Phi 18$	240	8- $\Phi 22$

Configuration dimensions and connection dimensions of heavy caliber water meter are shown in this table.

Note *: Connection flanges “ I ” and “ II ” are manufactured according to requirement of YB428-64 and GB4216.4 accordingly. The users can select both flanges.