



# **YAVUZ METAL**

## **SANAYİ VE TİCARET AŞ**

### **USER MANUAL**

**Document No : KT-UM-01**

### **KT SERIES**

## **MECHANICAL WATER METERS**

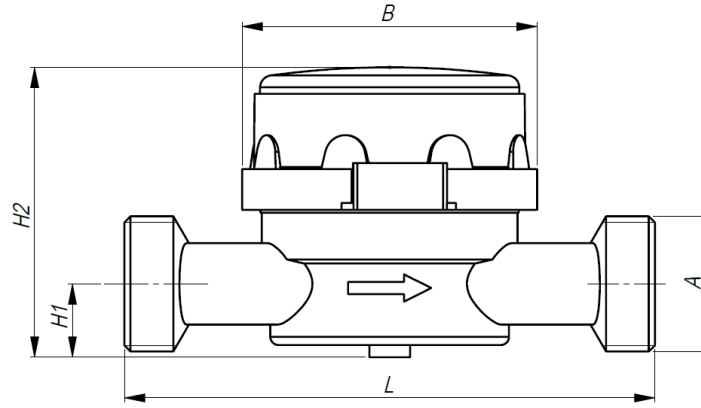
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## 1. Technical and Metrological Specifications

Model Name			KT11		KT12		KT13		KT14		KT15		KT16		KT17		KT18			
Nominal Diameter	DN	mm	DN15		DN15		DN20		DN20		DN20		DN20		DN20		DN20			
Permanent Flowrate	Q3	m <sup>3</sup> /h	1,6		2,5		2,5		2,5		2,5		4		4		4			
Maximum Flowrate	Q4	m <sup>3</sup> /h	2		3,125		3,125		3,125		3,125		5		5		5			
Ration Q3 / Q1	R...	-	80 100	40 50	80 100 160	40 50	80 100 160	40 50	80 100 160	40 50	80 100 160	40 50	80 100 160	40 50	80 100 160	40 50	80 100 160	40 50		
Transitional Flowrate	Q2	m <sup>3</sup> /h	0,032 0,0256	0,064 0,0512	0,05 0,04 0,025	0,1 0,08	0,05 0,04 0,025	0,1 0,08	0,05 0,04 0,025	0,1 0,08	0,05 0,04 0,025	0,1 0,08	0,08 0,064 0,04	0,016 0,128	0,08 0,064 0,04	0,016 0,128	0,08 0,064 0,04	0,016 0,128		
Minimum Flowrate	Q1	m <sup>3</sup> /h	0,02 0,016	0,04 0,032	0,0312 0,025 0,0156	0,0625 0,05	0,0312 0,025 0,0156	0,0625 0,05	0,0312 0,025 0,0156	0,0625 0,05	0,0312 0,025 0,0156	0,0625 0,05	0,05 0,04 0,025	0,1 0,08	0,05 0,04 0,025	0,1 0,08	0,05 0,04 0,025	0,1 0,08		
Installation Orientation			H	V	H	V	H	V	H	V	H	V	H	V	H	V	H	V		
Ration Q2 / Q1	-	-	1,6																	
Connection Thread	-	-	G 3/4 B						G 1 B											
Construction	L	mm	110		110		110		130		190		110		130		190			
Water Temperature Range	-	-	0,1 to 90																	
Temperature Classe	-	-	T30, T50, T70, T90, T30/90																	
Maximum Working Pressure		bar	16																	
Pressure LossΔP		bar	0,63																	
Max. permissible error in upper flow rates Q2 ≤ Q ≤ Q4		%	± 2 ( at 0 ≤ 30 °C ) ± 3 ( at 0 > 30 °C )																	
Max. permissible error in lower flow rates Q1 ≤ Q ≤ Q2		%	± 5																	
Scala interval		m <sup>3</sup>	0,00005																	
Capacity of Calculator		m <sup>3</sup>	99999																	
Mechanical Class		-	M1																	
Climatic Class		°C	-10 °C to +55 °C																	
Electromagnetic Environment Class		-	E1																	
Installation Conditions		-	U0 D0																	

## 2. Dimension



Model Name			KT11	KT12	KT13	KT14	KT15	KT16	KT17	KT18
Nominal Diameter	DN		DN15	DN15	DN20	DN20	DN20	DN20	DN20	DN20
Meter height	L	mm	110	110	110	130	190	110	130	190
Fitting dimensions of screw connection	A	-	G 3/4 B	G 3/4 B	G 1 B	G 1 B	G 1 B	G 1 B	G 1 B	G 1 B
Axis height	H1	mm	18	18	18	18	18	18	18	18
Total height	H2	mm	71	71	71	71	71	71	71	71
Width	B	mm	70	70	70	70	70	70	70	70



### 3. Photo ( Sample )



**KT Type1**



**KT Type2**



**KT Type3**

### 4. Description and Installation Instruction

#### 4.1 Description

- KT series water meters have been produced according to the harmonized standards and / or normative documents applicable to the EN 14154, ISO 4064, OIML R49: 2006 or 2013 meters.
- Measuring type of water meter is Single jet
- The register group has a capacity of 99999 m<sup>3</sup> and is vacuumed.
- Water counter, must protect against magnetic effects.
- Water meter can optionally be equipped with a non-return valve.
- The meter can only be used for forward flow and is resistant to backflow.
- The water meter can optionally be equipped with equipment that can communicate with electronic devices (RF, M-BUS, Pulse Output, etc.).
- The installation position of the water meter should be horizontal (H) and vertical (V).
- Flow profile sensitivity class : U0D0

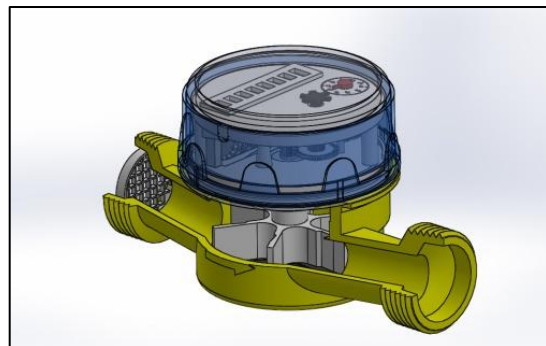
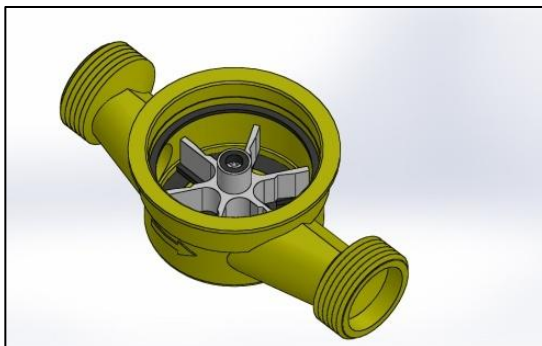
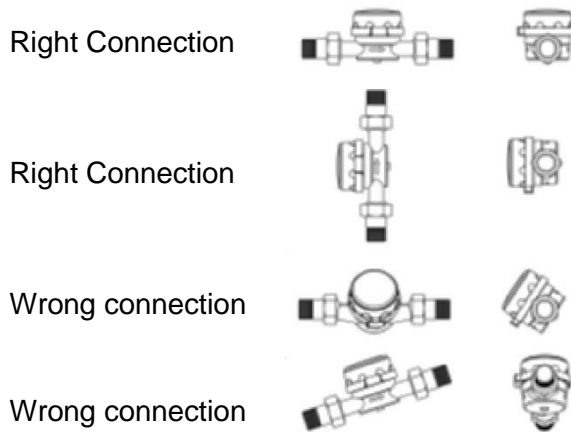
#### 4.2 Installation Instruction

- Meter space is found, the counter should be a place to protect it against external atmospheric influences.
- Installation of possible mortar, iron filings, flax fiber and paint residues such as counter will adversely affect foreign substances must be removed from the equipment.
- With the help of the arrow mark on the water flow direction must be determined in the installation must be connected correctly to the meter installation.
- The arrows indicate the direction of water flow meter on the meter. Counter 2 nipples, 2 end and is connected to the installation with the help of 2 seals.
- Pipe diameters used for installation counter nominal diameter (DN) should be equal.
- Connecting the meter installation must be made by one skilled in the following scheme.

- Counter your absolutely horizontal when viewed from the top will not interfere with the reading and must be parallel to the line of the input-output ends.

## 5. Working system

- Water meter, with the speed of the water that runs through the rotating propeller.
- The propeller starts spinning with water speed and the rotation transmission mechanism for moving the magnet on the register.
- The tip of the propeller and the magnets inside registration mechanism will magnetically coupling with each other.
- With this rotation through the gears in motion to the recording mechanism converts cubic meters and cubic hang coats.
- User can view consumption referring to the meter display. Register mechanism, vacuum dust and protection against humidity.
- Register mechanism is protected against magnetic effects.



*The Recording Mechanism can rotate 359 degrees around the axis.*

## 6. Notices Considerations During Use

If the pump is used to pump meter installation it must be connected to at least 2 meters away.

During transportation and shipping will affect the meter's settings and calibration (shock, shaking, etc. effects) should be avoided in handling and shipping method.

## 7. Repair and Maintenance

Maintenance and repairs are carried out by people with authorization by the Ministry of Customs and Trade. Users should not interfere with the purpose of repairs and maintenance meter.

## 8. Terms of Guarantee

1. The warranty period starts from the date of delivery and for 2 years.
2. It is all under warranty, including all parts of the goods.
3. If it is understood that it is defective consumer goods, the Law No. 6502 on Consumer Protection Situated in Article 11;
  - return from the contract,
  - want to discount the sales price,
  - ask the free repair,
  - the sale of a non-defective want to change with the times, you can use one of the rights.
4. Consumer vendors have chosen the right to free repair of such rights; labor costs, the cost of replacement parts or make a repair of the goods without any fee or is obliged to make under any other name. Consumers can use against the right to free repair to the manufacturer or importer. Dealers, manufacturers and importers are jointly responsible consumers from exercising such right.
5. Consumers have the right to free use of the property in case of repair;
  - Failure during the warranty period again.
  - Exceeding the maximum period for repair.
  - That repair is not possible, the authorized service station, dealer or manufacturer to determine the status of a report by the importer.

Consumer goods refund, if any shame or allow the rate of cost reductions can be replaced with the times demand from the non-defective goods seller. The seller cannot refuse to consumer demand. Failure to fulfil this demand vendors, manufacturers and importers are responsible jointly and severally.

6. The repair time cannot exceed 20 business days. This time, on the warranty period within the authorized service station or retailer notification failure for goods outside the warranty period, the case cannot be resolved within 10 working days of başlar.mal fault from the date of delivery of the goods authorized service station, the manufacturer or importer; the goods until completion of the repair, another property with similar characteristics have to be allocated to the consumer. In case of defects within the warranty period, it added to the warranty period repair.
7. Located on the property is outside the user manual defects resulting from the use contrary to the matters covered by the warranty.
8. Consumers can apply for a guarantee of the rights found in the settlement of disputes that may arise regarding the use of the consumer or consumer transactions in the place where the arbitral tribunal or the Consumer Court.
9. Seller is not given by this Warranty Card, consumers Customs and Trade Ministry of Consumer Protection and Market Surveillance Directorate General may apply.

## 9. Warranty Outside Conditions

1. faults occurring in the external atmospheric conditions protect you from the negative effects counter (freezing effects of mechanical shock, rain, mud, etc.).
2. failure will occur as a result of the poor quality of the impurities and water supplies.
3. failure will occur in the measurement results of the external liquid water.
4. Located in the manual counter is out of warranty failures resulting from the use contrary to the matters.
5. Seal is out of warranty and broken water meters.

## 10. Periodic Inspection

1. Periodic inspection of water meters are made every 10 years unless necessary.
2. Periodic inspection can only be carried out by authorized bodies.
3. Regarding periodic inspection, we refer to the MEASUREMENT AND MEASUREMENT INSTRUMENTS IN THE Official Gazette of the Republic of Turkey dated 24.07.1994 and numbered 22000.