

**YIGIT Serie R40**  
**Irrigation & Agriculture Woltman Type**  
**Single - Jet Dry Dial Water Meter for Cold Water**



**Main Characteristics:**

- Approved in accordance with MID
- Single - Jet dry dial register type with vane-wheel
- GGG - 40.3 Ductile Iron Materials body
- Removable measuring mechanism
- Metrological range-horizontal-R40 (Class A)
- Horizontal installation
- Magnetic transmission
- Register cap made of steel or plastic
- High resistance to water impurities
- Hermetically sealed register (IP68)
- Available for optical direct reading
- Electrostatic c/p powder painted
- Water temperature up to 50°C
- Equipable with Pulse output, MBus (Wire, Wireless), RF
- Spare parts and service available for 10 years
- 2 years of guarantee

**Available options:**

The meter could be pre-equipped for future integration of remote reading devices such as MBus wire, MBus wireless OMS, Non-magnetic pulse output, AMR and upon request LoRa, LoRaWAN, Sigfox

**Approvals:**

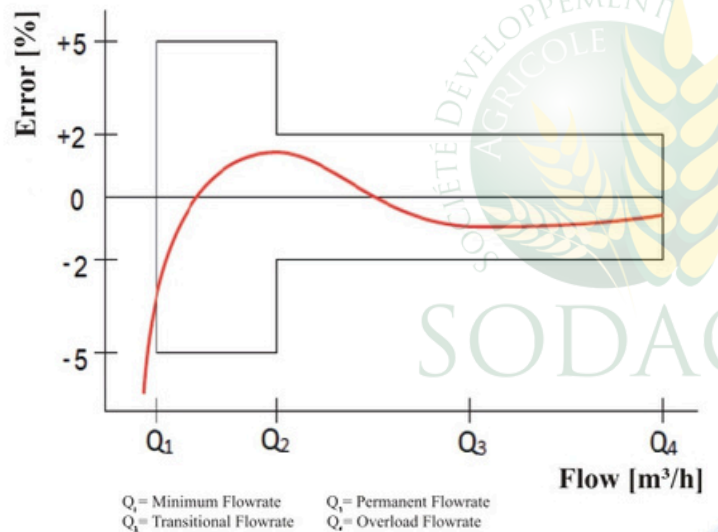
EC type-examination certificate in conformity with

- 2014/32/EU (MID) MI-001 Water Meter
- OIML R49-1 :2006
- EN 14154:2005+A2
- ISO 4064-1:2014
- EC Type Examination Certificate (1984-MI001-24-002)
- The Quality Assurance of Production Process (Module D)
- ISO 9001:2015
- ISO 14001:2015
- ISO 45001:2018
- ISO 27001:2013

**Applications:**

For the consumption measuring of cold potable water up to 50°C. Working pressure 16 bar (PN16), min. static pressure test 25 bar for 15 mins. 32 bar for 1 mins. Its reliability, resistance to bad water quality heavily contaminated water e.g in agriculture, in sewage treatment plants or wastewater systems and noiseless operation will satisfy both end users and network managers. Meter also keeps its metrological accuracy for many years of operation, even in very difficult working conditions. Note that, where is very heavy contamination, external filters can be inserted upstream of the water meter.

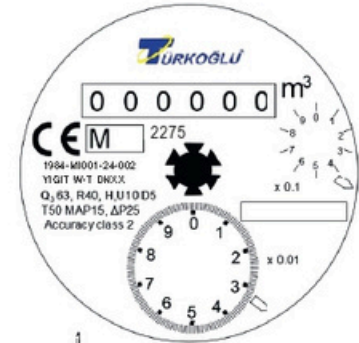
**Typical Accuracy Curve:**



### Marking:

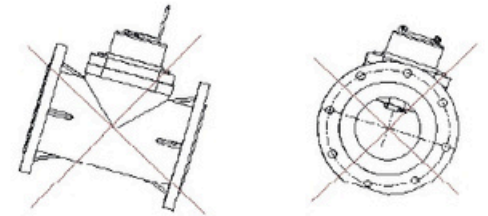
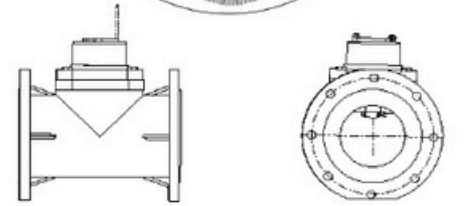
The manufacturer's trade mark, Nominal flow rate (Q3), Metrological ratio (R), Nominal size of the meter, Maximum working pressure (MAP), Pressure head loss class ( $\Delta P$ ), Type of the meter (Model), EC-type examination certificate number, Year of manufacturing, Mounting position, Maximum water temperature (T), CE marking, Metrology marking, Notified body number from D and F module, Volume unite of the index (m3) according to the MID 2014/32/EU directive on measuring instruments are printed on the dial.

Markings which are clearly visible, readable and of permanent and non-deleteable nature may vary depending on particular markets or metrological specifications.



### Installation and Operating Instruction:

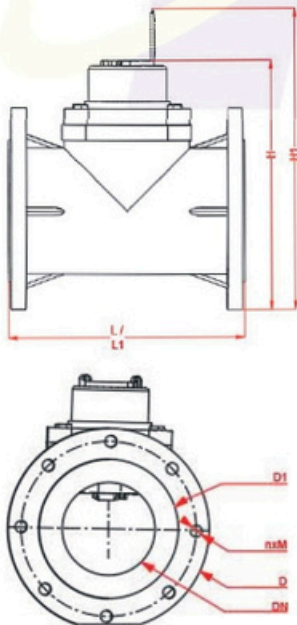
Meter must be installed in a low point of the pipeline with the arrow cast on the body showing direction of the water flow. All pipework must be flushed out to remove all impurities before fitting the water meter. An upstream stop valve or gate valve is recommended to allow installation and removal of the water meter. When connecting the meter with the meter network, the upstream stop valve or gate valve must be opened slowly so that the meter fills the meter as smoothly as possible. No special maintenance is required.



### Reed Pulse Emitter Device:

Water meter could be equipped with pulse emitter device which is a removable bonnet for quick and easy maintenance without damaging or removing the metrological seals of the meter. The meter can be linked to tele-reading systems, to PLC, to M-Bus networks using singal converter, to pulse counter and all those applications that require remote reading of the water consumption data.

Water meters could be equipped with a reed pulse emitter with protection class (IP68) 1,20 meter length of pre-mounted wire cables, Yigit (P) retrofittable with reed pulser: 100/1000 (Standard: 1000 1/pulse, optional: 100 1/pulse) or pre-equipped for the future installation of the pulse emitter. Note: The register protective cover of water meter with pulse emitter device will be high-quality UV-resistant and made of polycarbonate (PC) transparent material instead of mineral glass.



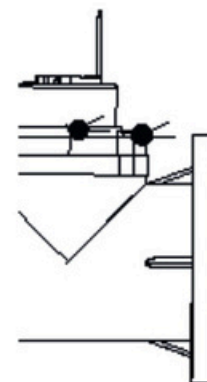
	Nominal Daimeter	Dn	mm	50	65	80	100	125	150	200	250	300
		Size	Inch	2"	2 1/4"	3"	4"	5"	6"	8"	10"	12"
Overall Length	L	mm	200	200	224	250	250	300	348,5	500	500	
Overall Length (With Wasket)	L1	mm	205	205	229	255	255	305	353,5	505	505	
Total Height	H	mm	250	260	277	285	320	330	390	460	460	
Total Height (With Lid)	H1	mm	340	290	314	375	388	368	485	568	550	
Outer Diameter	D	mm	50	65	80	100	125	150	200	250	300	
Flange Diameter	D1	mm	100	122	136,5	160	180	210	266,3	319,5	367	
Inner Diameter	DN	mm	164	183	198,5	217	250	284	340	405	460	
Diameter Gear	nxM		4xM16			8xM16			8xM20	12xM20	12xM24	
Weight Approx	*	kg	10,5	11,8	15,5	17,5	19,5	30,5	39	55	82,5	
Package Dimension	*	cm	28x18x23	28x20x22	28x20x22	30x23x26,5	31,5x26x27,5	34x30x32,5	39,5x38,5x45,5	51x47x51,5	51x47x51,5	
Quantity Per Package	*	unite	1									

Flange ISO 7005 - 2 / EN 1092 - PN 16

## Tampering Protection and Sealing (Optional):

### •Anti-Tampering butterfly seal for water meter

Pented butterfly seal consists mainly of three parts: transparent body, colored butterfly inner part and stainless steel sealing wire. Transparent body is made of polycarbonate (PC) material, colorful butterfly inner part is made of polyoximethylene (POM) which can not be removed without breaking from mounted inside. The inner part mounted inside the cylindrical body shall be non-reversible and unidirectional. Sealing wire made of AISI304 stainless steel are produced by twisting 7 pieces of Ø 0.23mm wire on top of each other. The butterfly seal can be used once against tempering in water meters. Optional: Laser printed serial number and company logo could be added on the body based on quantity.



Stainless Steel Seal

### •Meter Seals

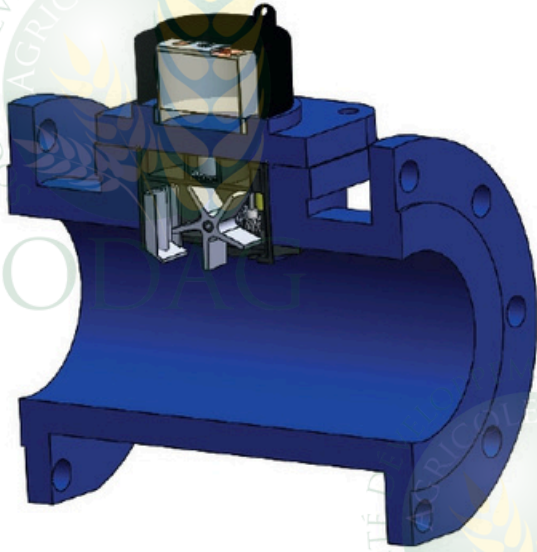
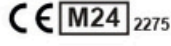
The meter is sealed by sealing materials which are stainless steel wire 1.00 mm thickness - optional (covered with plastic) and aluminium seal.

	Nominal Daimeter (DN)	DN	mm	50	65	80	100	125	150	200	250	300	
		Size	Inch	2"	2" ½	3"	4"	5"	6"	8"	10"	12"	
Metrological Data	Maximum Flow Rate (m³/h)	Q4	≤78.8	≤78.8	≤125	≤200	≤313	≤500	≤788	≤1250	≤2000		
	Nominal Flow Rate (m³/h)	Q3	≤63	≤63	≤100	≤160	≤250	≤400	≤630	≤1000	≤1600		
	Transitional Flow Rate (m³/h) Tolerance ±2%	Q2	≥2.52	≥2.52	≥4.0	≥6.4	≥10	≥16.0	≥25.2	≥40.0	≥64.0		
	Minimum Flow Rate (m³/h) Tolerance ±5%	Q1	≥1.57	≥1.57	≥2.5	≥4.0	≥6.25	≥10.0	≥15.7	≥25.0	≥40.0		
	Measuring Range - Horizontal (R-Class)	Q3 / Q1							≤40				
	Measuring Transitional Flow Rate	Q2 / Q1							1.6				
	Measuring Maximum Flow Rate	Q4 / Q3							1.25				
	Accuracy Class								2				
	Maximum Permissible Error Fort The Lower Flow Rate Zone	(MPE1)										±5%	
	Maximum Permissible Error Fort The Upper Flow Rate Zone	(MPEU)										±2 % for water having a temperature ≤30 °C ±3 % for water having a temperature >30 °C	
Performance Data	Temperature Class	T °C										T30 and T50	
	Water Pressure Classes	MAP (Bar)										16	
	Pressure - Loss Classes	Δ P (Bar)	25									10	
	Max. Indicating Range	[m³]				999 999						< 9 999 999	
	Resolution Of The Indicating Device	[m³]				0,001						0,01	
	Installation Positions											H	
	Connection Type												Flange Connection
	Reed Switch Power Supply	Umax/Imax											Max. 24V / 0,01A
	Impulse Value	litre/pulse											100 and 1000
Module Type (Optional)												Pulse, MBus (Wired,Wireless), RF, AMR	

## Third Party Inspection Company (Optional)

Third Party Inspection company (Bureau Veritas, SGS, Intertek) can be attended and witness to the needed tests in order to ensure 100% complete matching between the product and what is required in tender or contract documents in terms of standards, specifications and conditions.

Third Party Inspection report could be provided to the purchaser with results of all tests performed including visual, quality, quantity, packing, marking, loading control and witnessing to hydrostatic tests, error of indication tests during the inspection before each shipment.



	NAME	MATERIAL
1	CAST IRON BODY	DUCTILE CAST IRON (Qt400)
2	LID AND REGISTER CAP	PLASTIC (PPO) OR METAL
3	REGISTER	PLASTIC (ABS)
4	GLASS	MINERAL OR POLICARBON
5	SCREW	STAINLESS STEEL
6	SEPARATION PLATE	DUCTILE CAST IRON (Qt400)
6.1	ADJUSTING SHAFT	STAINLESS STEEL (1Cr18Ni10)
7	ANTIMAGNETIC TRANSMISSION	PLASTIC (ABS) AND MAGNET
8	O-RING	SILICA GEL
9	UPPER INSERT	PLASTIC (PPO)
10	ADJUSTING DEVICE	PLASTIC (ABS)
11	TURBINE GEAR / PIVOT	PLASTIC (ABS) AND STAINLESS STEEL (1Cr18Ni10)
12	TURBINE	PLASTIC (ABS) AND STAINLESS STEEL (1Cr18Ni10)
13	LOWER INSERT	PLASTIC (PPO)

## Legibility & Reliability:

### • Register / Counter

The register is direct straight reading type and consists of seven (7) digits numeric rolls for m<sup>3</sup> and one (1) pointers circular for litres to ensure perfect readability. The lowest resolution is 1.00 litre. The dial has a central disc (black or red) whose rotation indicates the passage of water. This indicator can be used to reveal a downstream leak. The register is also suitable for test on an electronic test bench.

The register is extra-dry dial and hermetically sealed (IP68) with magnetic transmission. It registers in cubic meter units and protected by a resistant lid. The pivot of impeller chamber, turbine which is supported by a sapphire and rested on a stainless steel shaft are made to guarantee against any corrosion or damage. Suitable for pre-equipped or equipped for the communication.

### • Meter Body / Housing

The body/housing of the water meter, flanged type, made of ductile iron (cast) corrosion protected by epoxy powder coating both inside and outside. A visible arrow on both sides of the body shows the direction of water flow.

### • Register Ring (Cap)

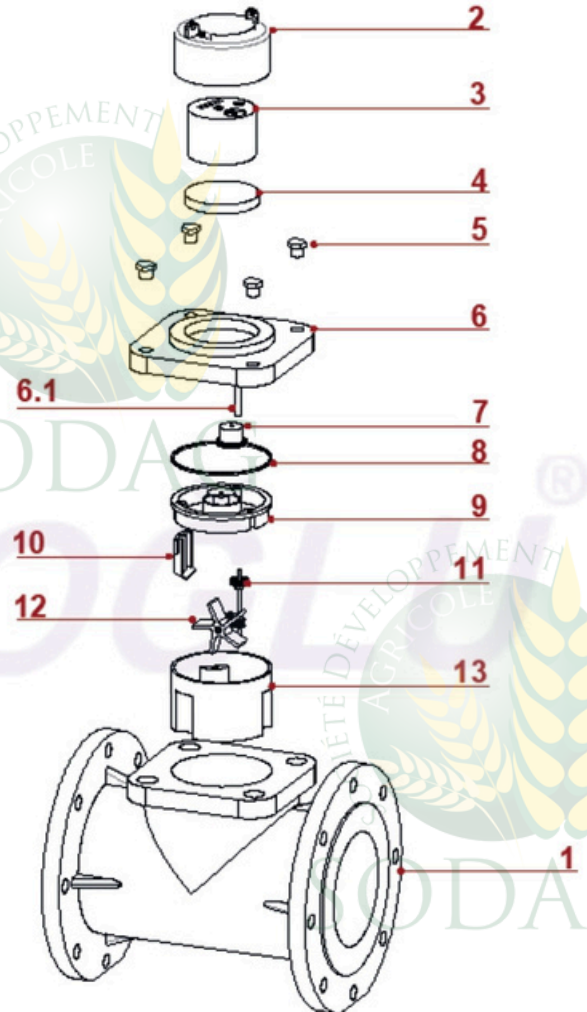
Register Ring (Cap) made of cast iron or plastic. The material can be accessible or removable in order to maintain the internal parts of the meter. Manufacturer's meter serial number are engraved on the register ring (Cap) covering the meter.

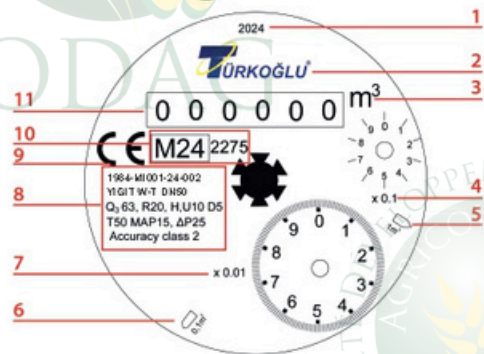
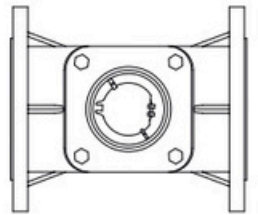
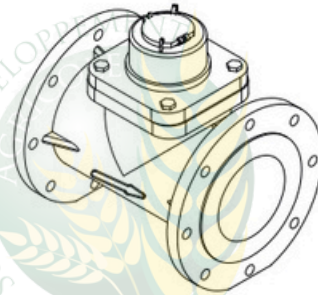
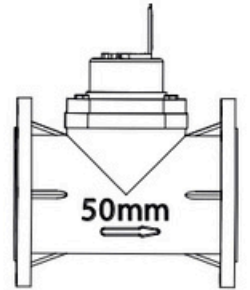
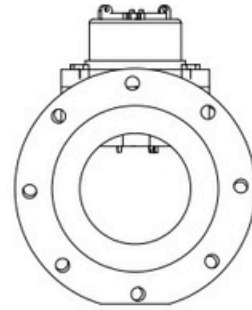
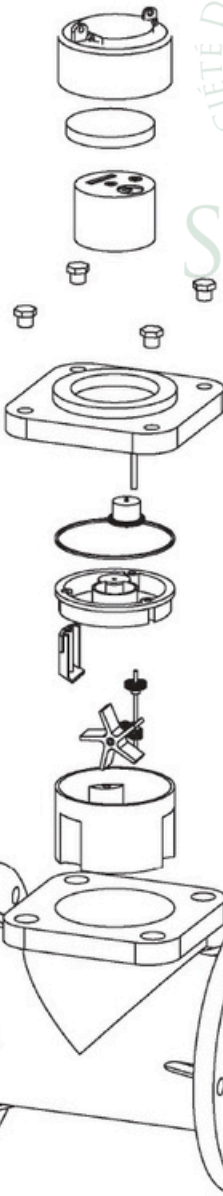
### • Register Protective Cover (Glass) and Register Cover (Lid)

The register protective cover is made of sturdy polycarbonate to avoid condensation or enable the reading anyway, has a thickness of min. 3 mm which prevents any mechanical tempering and scratch resistance. The magnetic transmission interface is tamper-proof (protection from external magnetic influences). The protection of register polycarbonate (lid) is made of steel or plastic.

### • Strainer and Non-Return Valve (Optional)

If there is very heavy contamination in pipeline, external strainer can be inserted at the flow inlet to the meter, without dismantling the meter and/or breaking the seal. Durable external non-return valve can be integrated at meter body/housing at outlet-side.





- 1: PRODUCTION YEAR
- 2: BRAND
- 3: UNIT OF VOLUME
- 4: 100LT.
- 5: PULSE POINT FOR 1m<sup>3</sup>
- 6: PULSE POINT FOR 100LT.
- 7: 10LT.

- 8: 1984-M001-24-002: EC TYPE EXAMINATION CERTIFICATE  
YIGIT W-T: MODEL NAME / DN50: NOMINAL DIAMETER  
Q3: NOMINAL FLOWRATE / R20: CLASS METROLOGICAL RATIO  
H: MOUNTING POSITION / U10 D5: FLOW PROFILE SENSITIVITY CLASSES  
T50: TEMPERATURE CLASS MAP: MAXIMUM WORKING PRESSURE  
P: PRESSURE LOSS CLASS / ACCURACY CLASS 2: ACCURACY CLASS
- 9: EUROPEAN INTEGRATION