

# Smart Bulk Ultrasonic Water Meter With Valve

ZLINK smart bulk ultrasonic water meter is equipped with external butterfly valve, the whole device is powered by batteries. The batteries supply for measuring, valve control and remote communication are separated and they are replaceable, this design will guarantee meter with long and stable working life.

This series product size range covers from DN50 to DN200, which can meet the requirement of both commercial and industrial users. The meter has internal pressure detection equipment, can detect leakage and burst of pipe. With remote valve turn on/off function, the solution can not only reduce water waste when abnormal water usage is detected, but also improve the utility cash flow by avoiding long-term arrears.

Combining with various IoT technologies, ZLINK meter helps the operator enhance communication coverage and data collection across the water supply network, which paves the way towards intelligent water utility infrastructure and smart city.



# FEATURES

- Wide measurement range of Q3/Q1= R500
- Ultralow starting flow rate avoids apparent losses
- Flexible flanges ensures ease of field installation
- Bi-directional flow measurement prevents water tamper
- Friendly big LCD displays cumulative volume, instantaneous flow and rich information of alarms
- No wearing parts, excellent long-term stability and reliability
- Integrated with pressure monitoring (optional)
- Vacuuming electron cavity to prevent glass fogging.
- Battery powered with lifetime of more than 10 years
- Protection level: IP68
- Leakage detection and dry pipe detection



## Valve Function

Remote valve control to save water if case of leakage or burst of pipe.

There is a transparent window on the valve casing, which can directly display its opening or closing status.

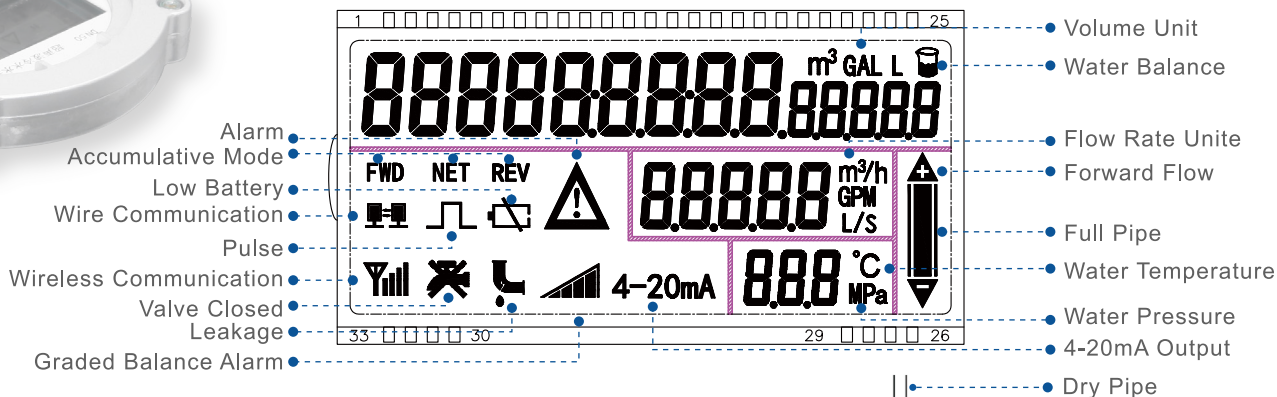
Each valve has a manual switch for emergency use.

The valve control module has two ways for installation: can be wall/pole mounted or can be integrated on the valve directly. Customers can choose the suitable way according to their own needs.

If an external control box is required, the length of the external cable is determined by the customer.



## Digital Display



## Communication Interface

LoRa	Low-power, long-distance wireless communication technology
NB-IoT	With narrow band of 180kHz, It can be directly deployed in GSM, UMTS or LTE network to enable smooth upgrade in future
GPRS	2G/3G/4G wireless remote communication, no concentrator is needed for data collection

## Technical Specification

Available Size	DN50-DN200
Standard	ISO4064/EN14154
Q3/Q1=R	500
Precision Class	Class 2
Pressure Loss	$\Delta p_{16}$
Maximum Working Pressure	1.6MPa
Resolution of Cumulative Volume	0.00001-999999999.99999m <sup>3</sup>
Working Environment	Temperature:-25~55 C , Humidity≤100%(RH)
Liquid Temperature Class	T30/T50
Flow Profile Sensitivity Class	U0D0
Climate and Mechanical Environment Safety Level	O
Electromagnetic Environment Class	E2
Power Supply	3.6V Lithium batteries, Up to 10 years
Protection Class	IP68
Construction	Materials: Cast Iron - epoxy coated / stainless steel Connections: flanges
Data Storage	For errors, alarms and measuring values, data logging capabilities to record up to 14*24 hourly, 366* daily, 72* monthly value
Valve Type	Butterfly valve
Valve Wiring	Valve opening signal line - blue line valve closing signal line - yellow line Positive pole of the motor - red wire Negative pole of the motor - black wire Public Line - Brown Line

## Motor Matching Comparison Table

Valve Nominal Diameter	Pressure at 0.6MPa Motor power		
	Opening and Closing Valve Time (Seconds)	Rated Current (A)	Rated Voltage (V)
DN50	200-210	0.1(Positive and negative 0.05 variation)	3.6V
DN65	200-210	0.1(Positive and negative 0.05 variation)	3.6V
DN80	200-210	0.15(Positive and negative 0.03 variation)	3.6V
DN100	180-190	0.4(Positive and negative 0.1 variation)	3.6V
DN125	180-190	0.4(Positive and negative 0.1 variation)	3.6V
DN150	180-190	0.45(Positive and negative 0.1 variation)	3.6V
DN200	200-210	1.1(Positive and negative 0.3 variation)	3.6V

## Performance Parameter

Meter Size (mm)	Dynamic	Overload Flow Rate	Permanent Flow Rate	Transitional Flow Rate	Minimum Flow Rate	Starting Flow Rate (l/h)
DN (mm)	R	Q4 (m <sup>3</sup> /h)	Q3 (m <sup>3</sup> /h)	Q2 (m <sup>3</sup> /h)	Q1 (m <sup>3</sup> /h)	Q0 (L/h)
50	500	78.75	63	0.2016	0.126	7
65		78.75	63	0.2016	0.126	12
80		125	100	0.32	0.2	18
100		200	160	0.512	0.32	28
125		200	160	0.512	0.32	44
150		312.5	250	0.8	0.5	64
200		500	400	1.28	0.8	113

## Installation Dimension

Nominal Diameter (mm)	Dimension (mm)		Flange Size (mm)				Weight (kg)	
	L Length	H Height	D Outer Diameter	K Hole Distance	Hole Diameter x Holes Amount	Sealing Surface		
						d		f
DN50	308/378	397	165	125	18×4	99	2	22.2/24.2
DN65	312	417	185	145	18×4	118	2	27.3
DN80	229/414	439	200	160	18×8	132	2	31.5/33.5
DN100	377/487	463	220	180	18×8	156	2	37.3/40.3
DN125	390	488	250	210	18×8	184	2	47.4
DN150	440	527	285	240	22×8	231	2	59.5
DN200	502	569	340	295	22×8	266	2	86.5

