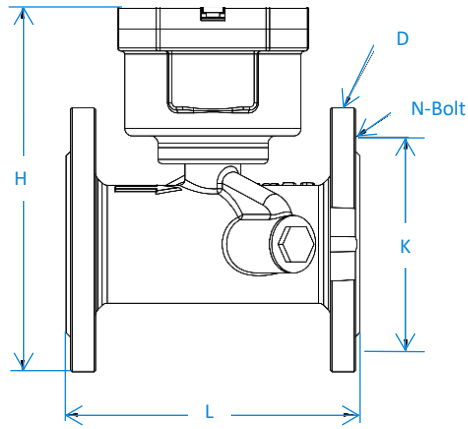
EPOXY-COATED ULTRASONIC MODBUS WATER METER FLANGE ENDED (R250)

MANUAL | ELECTRIC | Water Meter | FLANGE

COMPLY WITH ISO 4064: 2014

Wire material used: RS485 bus RVV4x (0.2-1mm^2) shielded wire.



SIDE VIEW

STANDARD SPECIFICATIONS	
Water Temperature	0˚C ≤ t ≤ 30˚C
Operating Pressure	≤ 1.6Mpa
Operating Voltage	DC 12 V
Battery Lifespan	6 Years
Communication transmission rate	9600 B/S
Accuracy Class / Performance ratio (R)	R250

COMPONENT PARTS

ITEM	PARTS	MATERIAL
1	Lid	Aluminium
2	Sealed Register	PC+ABS+POM
3	Communications	Epoxy Resin Copper Silicon PA
4	Body	Epoxy-coated Ductile Iron
5	Impeller	ABS
6	Flange	Epoxy-coated Ductile Iron

FLOW RATE SPECIFICATIONS

SKU	SIZE	R [Q_3 / Q_1]		Q_1 Minimum	Q_2 Transitional	Q_3 Nominal	Q_4 Maximum
	(mm)	Horizontal	Vertical	flow rate [m³ /h]	flow rate [m³ /h]	flow rate [m³ /h]	flow rate [m³ /h]
WMSUN050F	50	R250	R250	0.100	0.160	25.0	31.250
WMSUN065F	65			0.160	0.256	40.0	50.000
WMSUN080F	80			0.252	0.403	63.0	78.750
WMSUN100F	100			0.400	0.640	100.0	125.000
WMSUN150F	150			1.000	1.600	250.0	312.500
WMSUN200F	200			1.600	2.560	400.0	500.000
WMSUN250F	250			2.520	4.032	630.0	787.500
WMSUN300F	300			4.000	6.400	1,000.0	1,250.000
WMSUN350F	350			6.400	10.240	1,600.0	2,000.000
WMSUN400F	400			10.000	16.000	2,500.0	3,125.000

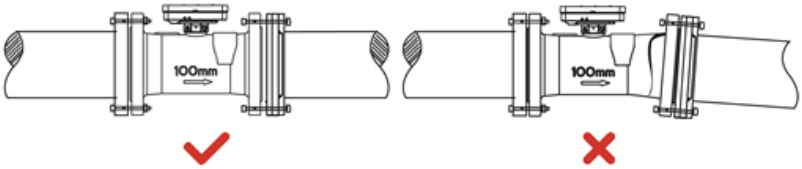
DIMENSIONS

SKU	L(mm)	D(mm)	H(mm)	K(mm)	N-Bolt(mm)	B(mm)	WEIGHT(kg)	PCS/CTN
WMSUN050F	200	165	219	125	4-M16	120	9.80	1
WMSUN065F	200	185	231	145	4-M16	120	11.40	1
WMSUN080F	225	200	249	160	8-M16	120	13.20	1
WMSUN100F	248	220	258	180	8-M16	120	16.30	1
WMSUN150F	300	285	297	240	8-M20	120	26.80	1
WMSUN200F	350	340	445	295	12-M20	120	-	1
WMSUN250F	450	405	495	355	12-M24	120	-	1
WMSUN300F	500	460	555	410	12-M24	120	-	1
WMSUN350F	550	520	595	470	16-M24	120	-	1
WMSUN400F	600	580	650	525	16-M27	120	-	1

*1] Ensure the water meter is installed in the correct water flow direction.
2] Always select the correct size and specification for the meter.
3] These water meters can be installed in either horizontal or vertical positions, but the correct installation guidelines must be strictly followed. Failure to comply will result in damage to the meter and void the warranty.
4) Use exclusively for indoor installations.

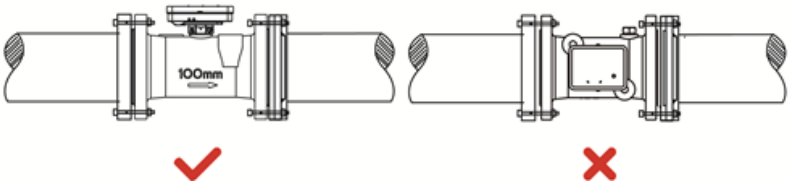
Guideline for correct installations of ultrasonic modbus water meter (Flanged End)

Figure 1 – Horizontal Installation



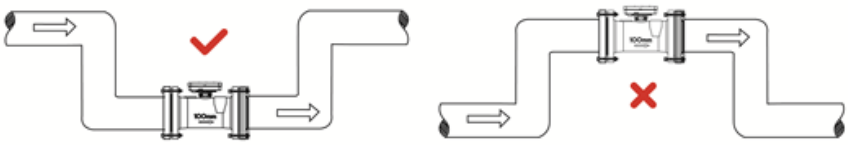
If the reserved position for the meter on the welded flange is too large or if the flange is welded unevenly at an angle relative to the meter flange, do not forcibly tighten the bolts. Doing so may cause the meter body to break. The correct approach is to remove and reinstall the meter properly

Figure 2 – Horizontal Installation



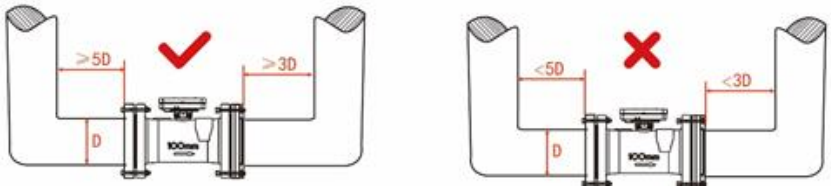
When installing the meter horizontally, the integration instrument should be oriented upwards. If it is oriented to the side, the two transducers may not be on the same horizontal plane, allowing air to accumulate at the higher transducer and causing inaccurate or failed measurements.

Figure 3 - Horizontal Installation



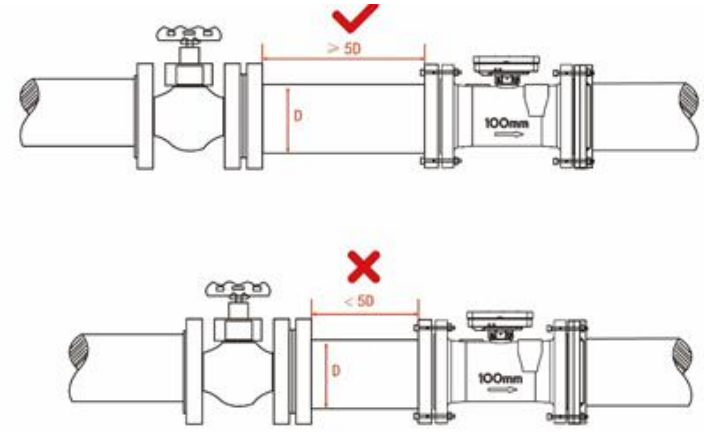
When installed at a U-bend, the meter should be positioned at the lowest point. Air can accumulate at higher points in the pipe, leading to inaccurate or failed measurements.

Figure 4 - Horizontal Installation



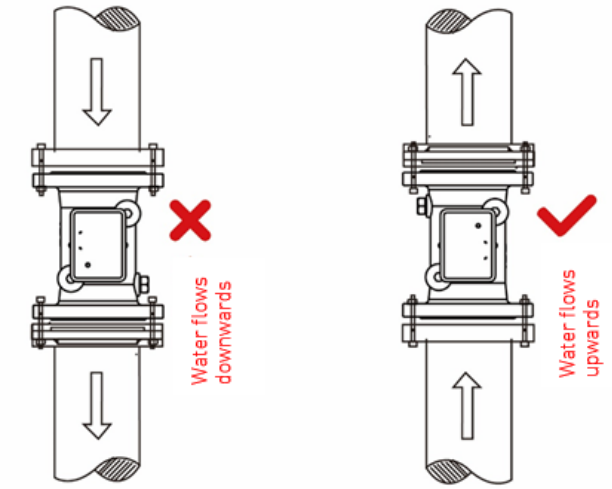
When the meter is installed at a bend, ensure the straight pipe distance upstream of the meter is at least 5 times the pipe diameter, and the straight pipe distance downstream is at least 3 times the pipe diameter. Failure to maintain these distances may result in inaccurate measurements.

Figure 5 - Horizontal Installation



When a valve or other object is installed upstream of the meter, ensure there is a distance of at least 5 times the pipe diameter between the meter and the object. Failure to maintain this distance may result in inaccurate measurements.

Figure 6 - Vertical Installation



When installing the meter vertically, it must be placed on a straight pipe with water flowing upwards. Air can accumulate in the pipe at higher points due to gravity, leading to incomplete filling of the pipe and resulting in inaccurate or failed measurements.