iDOL 90 LoRa water meter

1 Product description

The iDOL 90 Wireless LoRa is a wireless water meter for measuring water flow. The iDOL 90 can be integrated into any water system where precise consumption measurement is required.

Reading out of data takes place wirelessly using the LoRaWAN standard (Long Range Wide Area Network). It requires a LoRaWAN gateway (gateway purchased separately).

The housing of the water meter is made of composite polymer plastic and is equipped with a filter at the inlet end.

2 Product survey

140353 idol 90 wireless LoRa

idol 90 wireless LoRa is a wireless water meter for measuring water flow.

Transmits data wirelessly.

Nominal flow quantity = 1500 liter/hour

Max. flow quantity = 2500 liter/hour

Connection threads: ½”

To be used with iDOL 64 gateway.

2.1 Accessories (To be purchased separately)

140327 iDOL 64 Gateway modem wireless & analog

Receives wireless, LoRa-based and analog sensor data and forwards it to the dol-sensor cloud service.

4 pcs. standard M12 male with 5 pins.

Supplied with 2 m cable with plug.

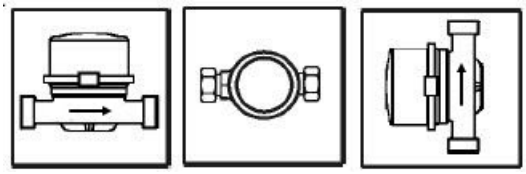
140355 iDOL 64 Gateway modem wireless

Receives wireless, LoRa-based sensor data and forwards it to the dol-sensor cloud service.

Supplied with 2 m cable with plug.

3 Mounting guide

The water meter can be positioned in the following ways.



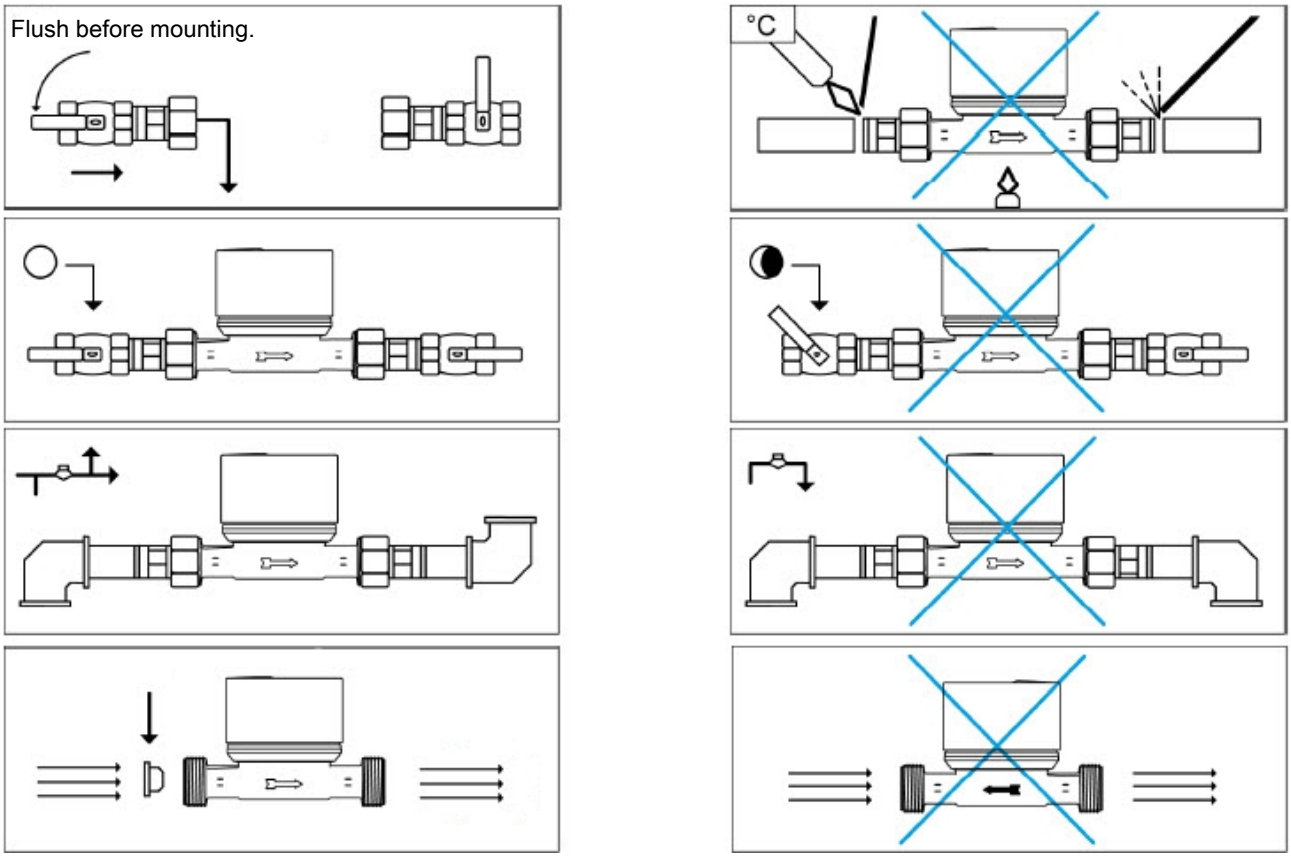
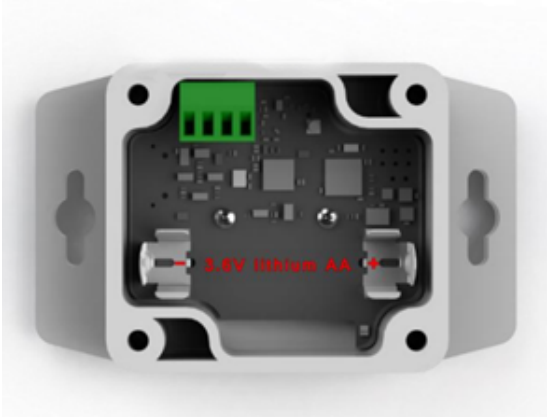
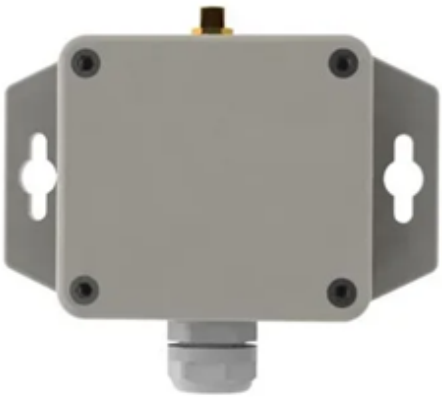


Figure 1: Examples of mounting a water meter.

4 Installation guide



Install the battery in the socket.



Secure the cover to the LoRa converter with 4 screws.

Screw the antenna onto the LoRa converter.

4.1 Setup

After installation the sensor must be connected to an idol 64 Gateway.

To do this, DevEUI is required. This can be read manually from the label on the back of the LoRa converter.

- The pulse counter resets after each successful transmission (the default transmission frequency setting is 10 minutes and 1 pulses per liter of water).

The reading on the water watch shows a total amount, while the LoRa converter only sends information about how much water has flowed since the last transmission.

5 Battery status

Sends battery status to the Gateway with the following states:

- Low. Replace battery soon
- Very low. Schedule battery replacement
- Critical. Replace battery now

6 Maintenance

6.1 Recycling/Disposal

The label indicates that the product must not be disposed of as general refuse disposal and must be treated as electronic waste.

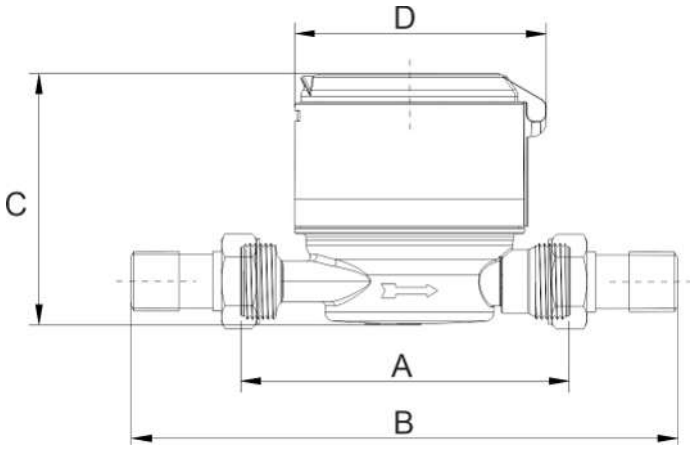
The label indicates that the product is suitable for recycling.

It must be possible for customers to deliver the products to local collection sites/recycling stations in accordance with local instructions. The recycling station will then arrange for further transport to a certified plant for reuse, recovery and recycling.

7 Technical data

	Water meter	Unit
Max. flow	2500	l/h
Nominal flow quantity	1500	l/h
Min. flow rate, horizontally mounted	31	l/h
Min. flow rate, vertically mounted	63	l/h
Pressure loss at nominal flow quantity	0.63	bar
Max. working pressure	16	bar
Pulse output	1	Pulse/Liter
Min. quantity readable	0.02	l
Max. quantity readable	99,999.999	m^3
Max. water temperature	30	°C
Connection threads	½	”
Reed contact	24/50	V AC/mA
	24/50	V DC/mA
Cable length	2	meter
Protection class	68	IP
Dimensions A:	110	mm
Dimensions B:	190	mm
Dimensions C:	85	mm
Dimensions D:	75	mm
Packing dimensions H x W x D	110 x 97 x 123	mm
Shipping weight	270	g
	LoRaWAN converter	
Battery type	ER14505	-
Battery voltage	3.6	V
Battery capacity	2700	mAh
Battery lifetime estimate	5 years with 10 minutes sampling and good signal	-
Protection class	67	IP
Approvals	CE, FCC and IC	-

7.1 Dimensioned sketch



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