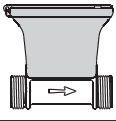




**WATER METER TYPE**

Ultrasonic water meters with brass body and integrated RF connectivity

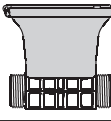
**Ultrimis UL**  
DN15-50



CE, MID, IP68, WM-Bus, LoRaWAN

Ultrasonic water meters with composite body and integrated RF connectivity

**Ultrimis UL-01**  
DN15-20



CE, MID, IP68, WM-Bus, LoRaWAN

**ACCESSORIES**

Smartphone



Android, NFC

TestBox



Available for 433 MHz or 868 MHz service, depending on the water meter's RF module version

Aplikacja na urządzenia typu smartfon

**SPIDAP**

Android, NFC



**SHIPPING AND STORAGE**

Protect against shocks and vibration.

Store between 0°C and 25°C.

**SAFE OPERATING CONDITIONS**

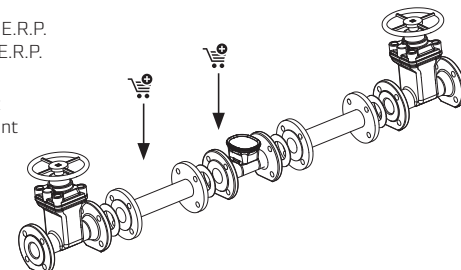
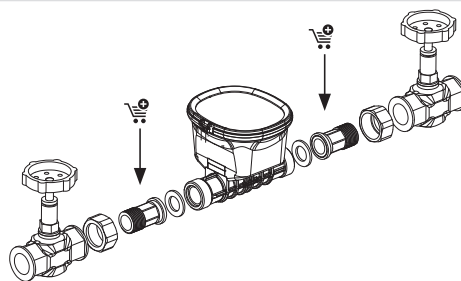
Do not touch hot surface	Do not touch sharp edges	Do not touch damaged equipment	Risk of crushing	Do not apply extra load to equipment
Install/remove equipment only with shut-off valves closed	Risk of injury during installation, removal, or handling of the equipment	Possible leakage of cold or hot water under high pressure	Do not dispose of equipment with household waste	Prevent access to the equipment by unauthorized persons (including unsupervised children), or persons with reduced mental or physical abilities
Risk of electrolyte leakage	Risk of battery ignition	Do not operate equipment in extreme weather conditions	Do not remove, charge, recharge by other means, disassemble, throw into fire, or short-circuit the battery	

**BASIC INFORMATION**

- Max water temperature: **T30: 0,1–30°C**  
**T50: 0,1–50°C**  
**T70: 0,1–70°C**
- Ambient temperature **5-55°C**
- Operating pressure **16 bar\***
- Battery life **16 years max.\*\***  
Two integrated 3.6 V DC lithium batteries, size **AA**  
Lithium content – approx. 2 x 0.7 g

RF connectivity parameters: 868 MHz up to **25 mW** E.R.P.  
434 MHz up to **10 mW** E.R.P.

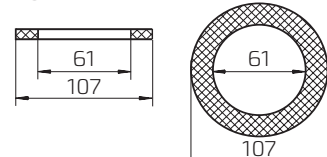
Communication standard: WM-Bus, OMS-compliant  
LoRaWAN V1.0.4-compliant



Ultrimis		*** [mm]		[Nm]
		Wrench	Wrench	
ULN2,5	DN15	17	29	25
ULN2,5-01	DN15	17	29	15
ULN4	DN20	20	36	30
ULN4-01	DN20	20	36	20
ULN6,3	DN25	36	47	35
ULN10	DN32	44	54	40
ULN16	DN40	50	67	45
ULN25	DN50	24	24	-

\*\*\* Wrench size required for installation. The actual installation may feature other connection fitting dimensions.

Uszczelka **DN50** do połączeń kołnierzowych wg PN-EN 1514-1:2001

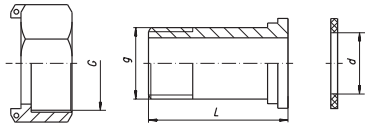


\* 10 bar is available on special order.  
\*\* Depending on the configuration and ambient conditions.



## ESSENTIAL INSTALLATION COMPONENTS

### Aparator Powogaz half unions



	G ["]	g ["]	d [mm]	L [mm]	Index
DN15 mm kit of half unions	3/4	1/2	17	37,5	0616-101-015
DN20 mm kit of half unions	1	3/4	23	45,5	0616-101-020
DN25 mm kit of half unions	1 1/4	1	29	46,5	0616-101-025
DN32 mm kit of half unions	1 1/2	1 1/4	36	56	0616-101-032
DN40 mm kit of half unions	2	1 1/2	41	67	0616-101-040
DN50 mm kit of half unions	2 1/2	2	54	75,2	0616-101-040



## CLASSIFICATION OF ENVIRONMENTAL CONDITIONS

- Mechanical class acc. to OIML D 11:2013 (E) - **M1**
- Electromagnetic class acc. to OIML D 11:2013 (E) - **E1, E2**
- Climatic and mechanical class acc. to EN ISO 4064:2017 (E) - **B** (installation in the building) or **O** (outdoor installation)



## COMPATIBILITY AND INSTALLATION REQUIREMENTS

	Water meter installation positions*			Flow profile accuracy class	
Ultrimis UL, UL-01	H↑	H→	V	U0 D0	U5 D3

\* The tolerance of the flow axis position for all meters—horizontal, vertical, and inclined—is  $\pm 5^\circ$  in accordance with the PN-EN ISO 4064-2 standard.

\*\* If there is any fitting other than standard connectors before or after the water meter (which may disturb the flow), it is recommended to extend the straight pipe sections: upstream of the meter to  $U5 = 5 \times DN$ , and downstream to  $D3 = 3 \times DN$ . In the case of fittings that strongly disturb the flow profile, these values can be increased two- to threefold.



## INSTALLATION AND OPERATING RECOMMENDATIONS

 This product should be installed by a professional licensed for servicing and operation of water and sewage systems	 Close the upstream and downstream valves before installing/removing the product	 When installing or removing the water meter, place a container to collect the liquid, clean the threaded ends, and flush the system section the water meter will be installed in	 Mind the indicated direction of water flow	 Install a separating filter upstream of the water meter
 Keep the straight line sections upstream and downstream of the water meter as shown in the table above	 Protect from air pockets; do not install in the highest points of the system	 Have the water meter serviced if defective	 Prevent stresses from misalignment with the pipeline	 This device is suitable operation in wet or flooding conditions per IP68
 Protect from freezing	 Protect from high temperature and UV light	 Protect from vibration	 Do not use near sources of acids, gases and/or electrical systems	 Protect from shocks
 Protect from hydraulic shocks	 Keep the installation site clean	 Minimum water meter downstream pressure $P_{min} \geq 0.3$ bar	 Do not dispose of the device with household waste. Bring the device to a selective waste collection point. Please recycle.	

**NOTE:** See [www.apator.com](http://www.apator.com) for detailed information about the operating principle and conditions.



# CONNECTION EXAMPLE DIAGRAM



### WARNINGS:

This manual is the property of Apator Powogaz S.A., and all rights to this document are reserved. Any copying or distribution of this manual is strictly prohibited. As this manual is part of the device, it should be kept with the device to ensure access to information for both the user and qualified service personnel. It is recommended to read this manual before first using the device to ensure safe and proper operation.

Apator Powogaz S.A. shall not be held liable for any personal injuries, indirect damages, or material losses resulting from improper installation or incorrect use of the device, inconsistent with its intended purpose.

### PROHIBITED:

The device must be used in accordance with this manual, and any modifications, attempts at self-repair, or improper use of the device are prohibited. In case of malfunction or suspected issues with the device, contact qualified service personnel.

Apator Powogaz S.A. has the right to modify and improve the manufactured equipment without prior notice.



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