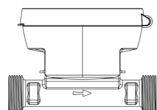




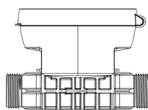
WATER METER TYPES

Ultrasonic water meters
with brass body and
integrated RF connectivity
Ultrimis NEO ULN
DN15-50



CE, MID, IP68, WM-Bus, LoRaWAN

Ultrasonic water meters
with composite body and
integrated RF connectivity
Ultrimis NEO ULN-01
DN15-20



CE, MID, IP68, WM-Bus, LoRaWAN



ACCESSORIES

Smartphone



Android, NFC

TestBox



Smartphone app

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 damaged equipment

Do not touch damaged
equipment

Risk of crushing

Do not apply extra load to
equipmentInstall/remove equipment only
with shut-off valves closedRisk of injury during installation,
removal, or handling of the
equipmentPossible leakage of cold
or hot water under high
pressureDo not dispose of equipment
with household wastePrevent access to the equipment
by unauthorized persons (including
unsupervised children), or persons
with reduced mental or physical
abilities

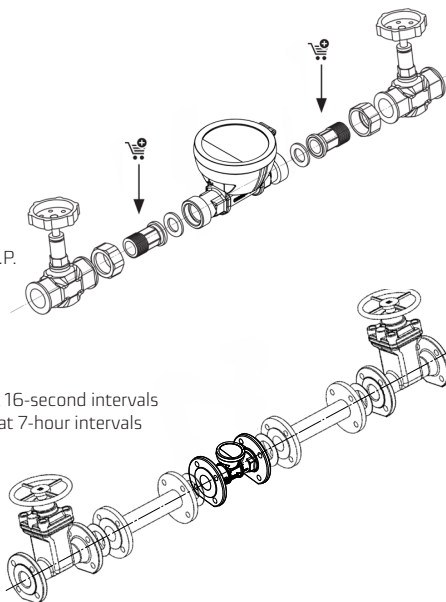
Risk of electrolyte leakage



Risk of battery ignition

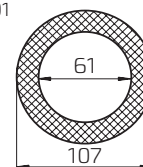
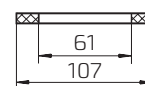
Do not operate equipment in
extreme weather conditionsDo not remove, charge, recharge
by other means, disassemble,
throw into fire, or short-circuit
the battery

BASIC INFORMATION

Max water temperature **70°C**Ambient temperature **5 - 55°C**Operating pressure **16 bar***Battery life **up to 16 years****
Two integrated 3 V DC lithium batteriesRF connectivity parameters: 868 MHz up to **25 mW E.R.P.**Communication standard: WM-Bus, OMS-compliant
LoRaWAN V1.0.4-compliantCommunication standard: WM-Bus - radio frame sent at 16-second intervals
LoRaWAN - radio frame sent at 7-hour intervals

Ultrimis		***		
		[mm]		[Nm]
UL2,5	DN15	17	29	25
UL2,5-01	DN15	17	29	15
UL4	DN20	20	36	30
UL4-01	DN20	20	36	20
UL6,3	DN25	36	47	35
UL10	DN32	44	54	40
UL16	DN40	50	67	45
UL25	DN50	24	24	-

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

Flanged **DN50** port gasket acc.
to PN-EN 1514-1:2001

* 10 bar is available on special order

** Depending on the configuration and ambient conditions



PRODUCT FEATURES

Exit from shipping mode

- Via NFC
- Minimum flow rate:
 - equivalent flow Q2, according to the device's R class, over 1 hour.

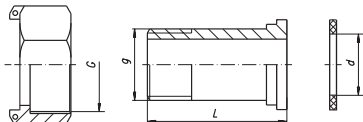
Alarms

- Zero flow: alarm triggered after 30 seconds
- Water meter leak: alarm trigger: flow > Q4 for 30 s
- Water main leak (bypass flow): alarm trigger: flow > Q4 for 30 s
- Low battery: lifespan > 1 year
- Tampering detected: enclosure tamper
- Back flow: alarm triggered after > 30 s of back flow time
- Overtemperature:
 - T50: <2°C or >50°C
 - T70: <2°C or >70°C



ESSENTIAL INSTALLATION COMPONENTS

Unions offered by Apator Powogaz S.A.



	G [cal]	g [cal]	d [mm]	L [mm]	Index
Set of union nuts DN15 mm	¾	½	17	37,5	0616-101-015
Set of union nuts DN20 mm	1	¾	23	45,5	0616-101-020
Set of union nuts DN25 mm	1¼	1	29	46,5	0616-101-025
Set of union nuts DN32 mm	1½	1¼	36	56	0616-101-032
Set of union nuts DN40 mm	2	1½	43	66	0616-101-040
Set of union nuts DN50 mm	2½	2	54	74,2	0616-101-050



CLASSIFICATION OF ENVIRONMENTAL CONDITIONS

- Environmental classification – Climate and mechanical conditions: Class B (EN ISO 4064: 2014)
- Environmental classification – mechanical conditions: Class M1 (Directive 2014/32/UE of 26 February 2014)
- Electromagnetic conditions: Class E1 & E2 (EN ISO 4064: 2014 and Directive 2014/32/UE of 26 February 2014)



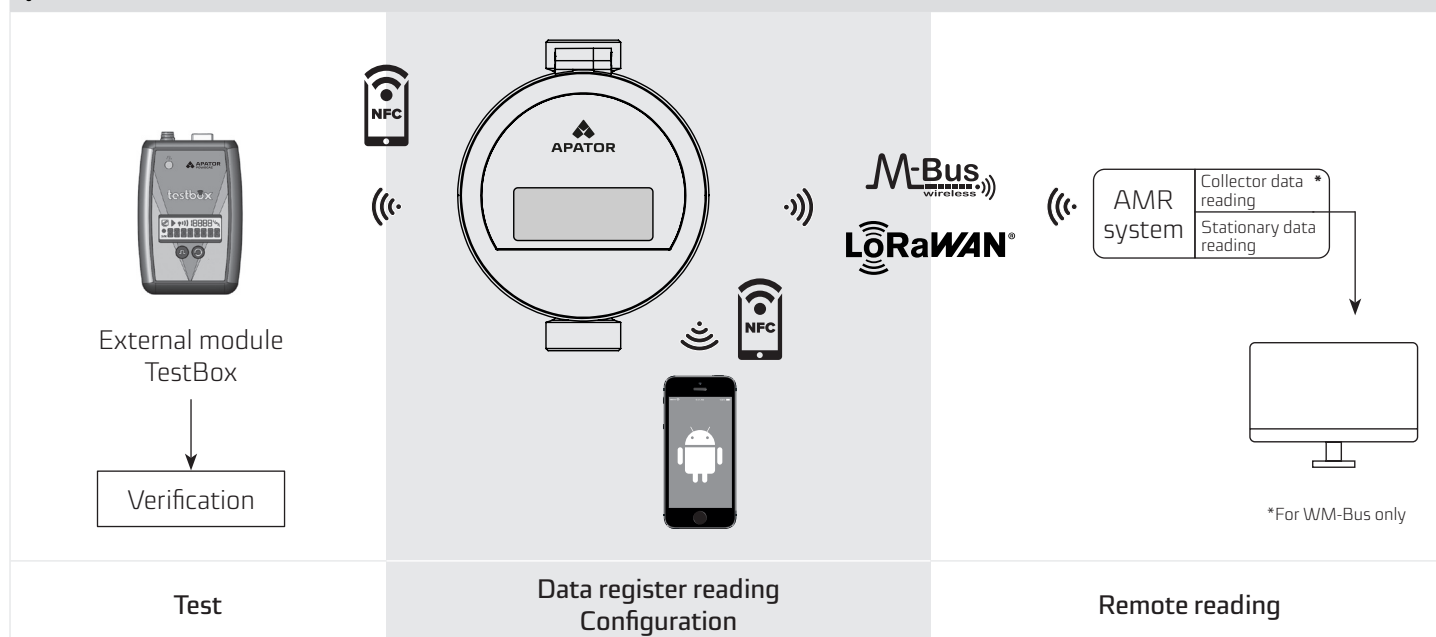
COMPATIBILITY AND INSTALLATION REQUIREMENTS

				Operating orientation		
Ultrimis NEO ULN, ULN-01	✓	✓	✓		CE-compliant U0 D0	Per manufacturer U5 D3

*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 × DN, and downstream to D3 = 3 × DN. In the case of fittings that strongly disturb the flow profile, these values can be increased two- to threefold.



CONNECTION EXAMPLE DIAGRAM





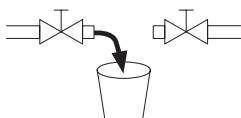
INSTALLATION AND OPERATING RECOMMENDATIONS



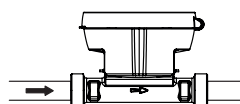
This product should be installed by a professional licensed for servicing and operation of water and sewage systems.



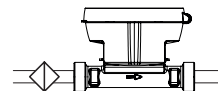
Close the upstream and downstream valves before installing/removing the product.



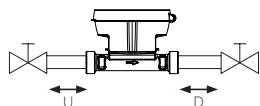
When installing or removing the water meter, place a container to collect the liquid, clean the threaded ends, and flush the system section the water meter will be installed in.



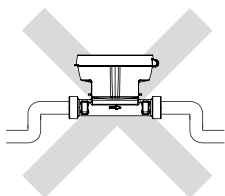
Mind the indicated direction of water flow.



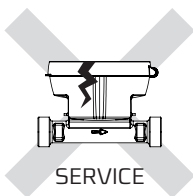
Install a separating filter upstream of the water meter.



Keep the straight line sections upstream and downstream of the water meter as shown in the table below

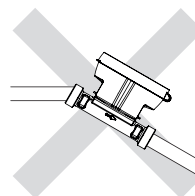


Protect from air pockets; do not install in the highest points of the system.

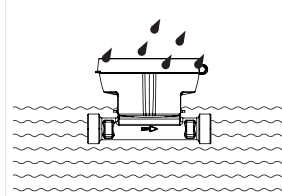


SERVICE

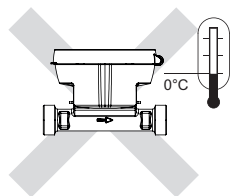
Have the water meter serviced if defective.



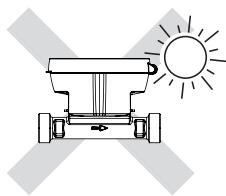
Prevent stresses from misalignment with the pipeline.



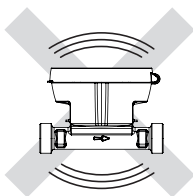
This device is suitable for operation in wet or flooding conditions per IP68



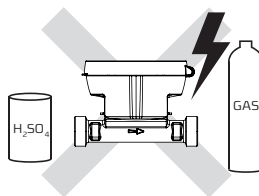
Protect from freezing.



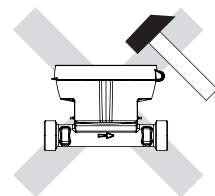
Protect from high temperature and UV light.



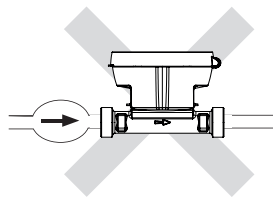
Protect from vibration.



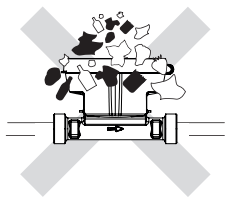
Do not use near sources of acids, gases and/or electrical systems.



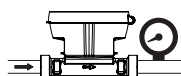
Protect from shocks.



Protect from hydraulic shocks.



Keep the installation site clean.



Minimum water meter downstream pressure
 $P_{\min} \geq 0,3 \text{ bar}$



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 for detailed information about the operating principle and conditions.

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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