

VORSPRUNG DURCH TECHNOLOGIE

made  
in  
Germany

Usage manual

# T-NEC Anti-Legionell

100% Chemical-free Water Treatment

[www.NECON.de](http://www.NECON.de)

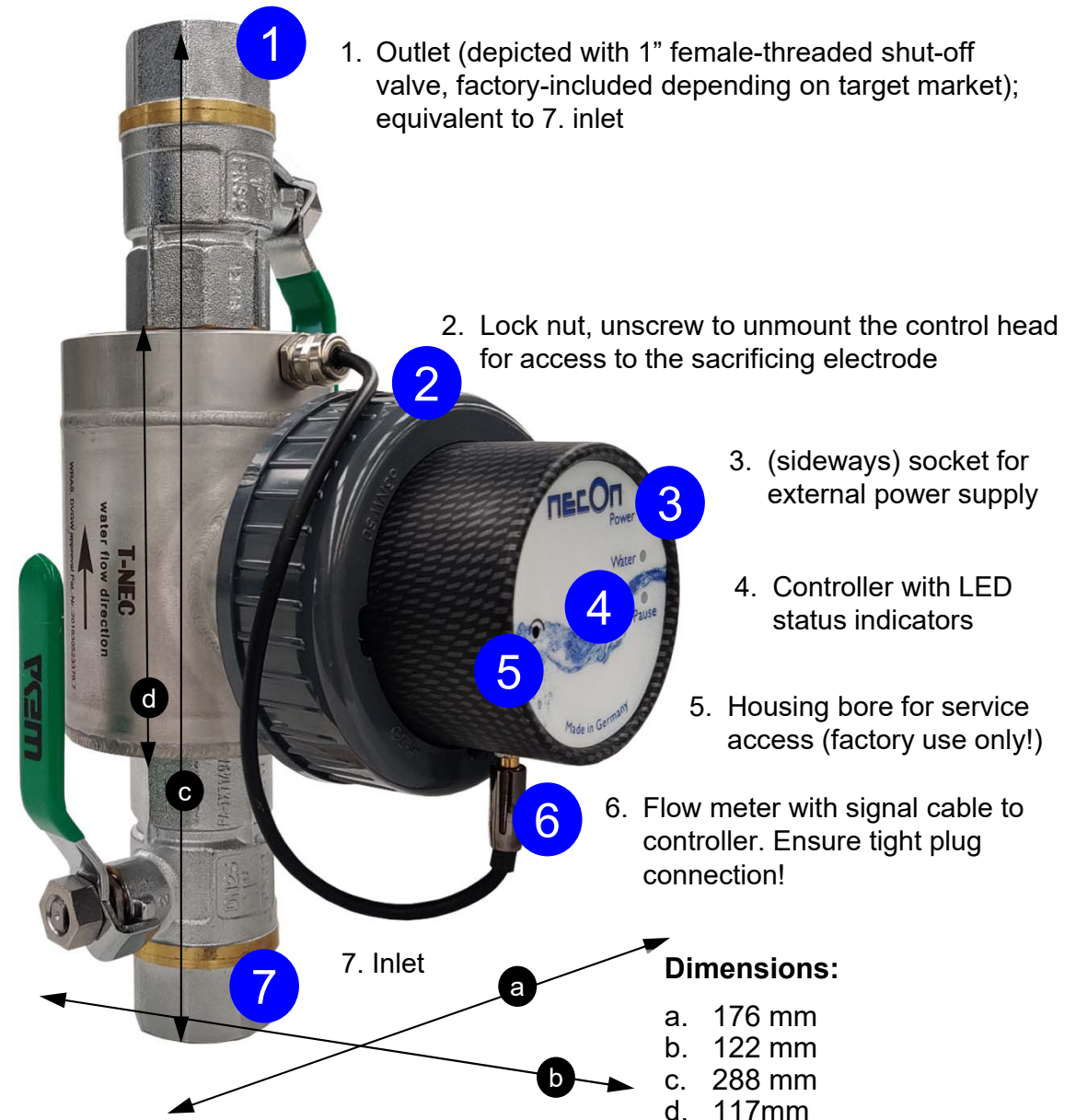
## Product Overview

**Congratulations on your purchase of a state-of-the-art disinfection system!**

**The T-NEC system is designed for electro-physical treatment of mains water to control and prevent waterborne bacteria, esp. pathogens like legionella.**  
The schematic on the following page illustrates the functional principles of the NECON water treatment.

**The system has been designed specifically for application in domestic water supply installations.**  
Designed like a pipe tee, it seamlessly integrates itself into existing pipe networks.  
The dosing is controlled fully automatically by a patented, integrated control intelligence and does not require any settings on the part of the user.

**The unit ships with a pre-installed sacrificing electrode.** It must be inspected at least every 25,000 liters, and replaced latest after 2 years.



## Functional Principles



**RAPID  
DISINFECTION**

**LONG-LASTING  
RESIDUAL EFFECT**



Searching for a balance for their positive polarity, the ions attach themselves to and penetrate the walls of bacteria and pathogenic microorganisms.



The NECON treatment electrode produces positively charged ions.

Photosynthesis and nutritional uptake of the cells is prevented; they rapidly succumb.

Residual effect:  
Free ions remaining in the water prevent recontamination.



## Technical Specifications

<b>Power supply:</b>	external plug-in voltage transformer, required output to T-NEC system: 24 V DC, min. 1250mA; required polarity of tip of plug to unit's power socket: positive polarity
<b>Power consumption:</b>	max. 28 Watt depending on automatically regulated performance (< 1W on standby)
<b>Amperage:</b>	1 A max.
<b>IP rating:</b>	IP 54
<b>Treatment cell:</b>	stainless steel
<b>Drinking water qualification:</b>	acc. WRAS (U.K.), DVGW (Germany)
<b>Temperature rating:</b>	ambient max. 50 °C, water max. 70 °C
<b>Pressure rating:</b>	16 bar operating pressure
<b>Connection threads:</b>	1" BSP male (shut-off valves, factory-included depending on target market: 1"/1" BSP female)
<b>Feed-through:</b>	3/4" (DN 20)
<b>Electrode life:</b>	max. 2 years (see maintenance instructions in sections Product overview and Operating log template)
<b>Unit weight:</b>	4 kg incl. electrode
<b>Scope of supply:</b>	T-NEC unit incl. integrated flow meter and factory-fitted sacrificing electrode, and external plug-in voltage transformer, input 180-240 V AC — 50/60 Hz), configured with "Europlug" (EN 50075) resp. Type C „CEE 7/16“; alternatively on request / subject to availability configured with Type G resp. BS 1363 „british 3-pin“ connector

## Installation and Maintenance

T-NEC shall be placed right after municipality water meter (point of transfer from supply net-work) or after point of withdrawal from well / ground).



**Direction of water flow must correspond with arrow marking on unit's body**



**Fitting orientation: vertically / upright strongly recommended**

To ensure lasting ease of movement of the integrated flow meter, ensure that feed water is free of impurities and solids, if necessary by adding a sieve/filter with a pore size of max. 600 µ on the inlet side.

Use of cut-off valves on inlet and outlet recommended with regard to water discharge when opening unit for electrode inspections.

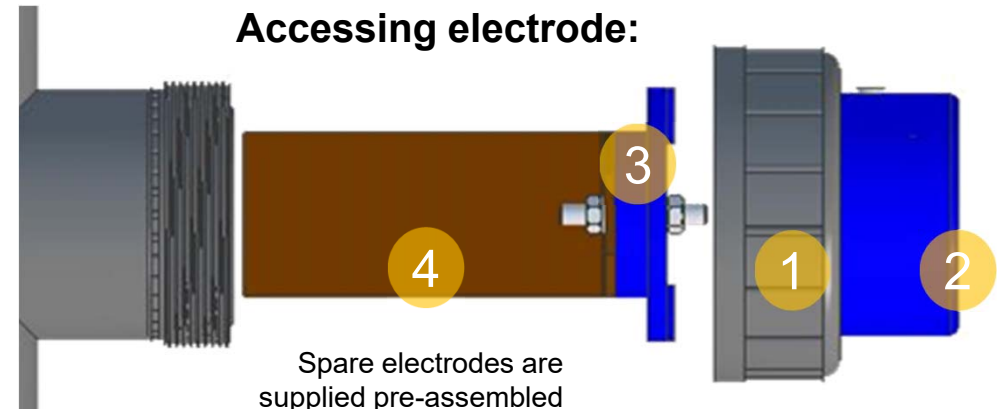
**The installation area must be protected against potential damage caused by water discharge**, for example by means of floor drains and where appropriate by installing sensors that will signal unsupervised water discharge and that may also close automated shut-off valves.

Required clear depth for direct access to electrode i.e. without needing to remove unit from piping:



min. 230 mm

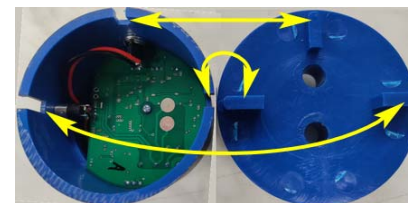
**Accessing electrode:**



Spare electrodes are supplied pre-assembled including fresh holder.

Unscrew union nut ① to detach controller ② and to pull-out the then-accessible electrode holder ③ along with the affixed electrode plates ④.

Re-inserting electrode cartridge plus controller and securing in reverse order.



Unmistakable alignment of the electrode holder with the controller's rear side contacts ensured by distinct guides.

## Powering-up; LED Indicators



Using external plug-in voltage transformer, connect unit via its power socket to suitable power source.

Status LED of supplied power transform will illuminate (green; (red on increased load).

Unit is now ready for operation – indicated by "POWER" LED. Same time, electrode is switched to "PAUSE" when system does not detect any water flow:



**Service access, solely for factory test purposes!**  
**Non-observance will void warranty!**



**If "PAUSE" is continuously indicated while water being withdrawn from connected outlets, please check:**

1. the integrated electrode for deposits or wear-out,
2. the cable connection to the built-in flow monitor (for tight fit of the plug connection, or any external damage), as well as
3. ease of movement of the flow monitor

## LED states on detected water flow:



Operating light YELLOW (instead of RED) indicates proper operation of the integrated electrode.



**Routinely ensuring the function of the „WATER“ LED during water withdrawal on connected outlets is mandatory!**

On (very) low flow rates, the yellow and possibly also the red LED will flash as a result of sharp performance reduction (due to rapid alternation between indication of operation and of pause):



## Operating log (example template)

Date	Remarks, e.g. type of inspection: - LED "WATER" indicates electrode activation during water flow - Electrode maintenance at least every 25,000 litres - Electrode replacement at least every 2 years	Signature - Stamp, if applicable

## Limited Warranty, Repairs

### Cover Period

Necon GmbH, manufacturer of this unit guarantees this unit for a period of 2 years from purchase by the end user.

### Warranty

This warranty is effective only if the unit was not subjected to improper treatment, negligence, incorrect installation, abuse or use other than that specified. This warranty does not cover consumables or minor defects.

### Coverage

For the period of cover, given a product failure, Necon GmbH undertakes to examine the unit fully and should defect concur with the above, replace the unit or defective parts of the unit without cost or charge.

Additional claims, specifically claims for damage other than that has occurred on the unit itself are excluded.

In the event of a warranty service, the warranty cover period is not extended from the date of said repair or replacement.

This warranty is in addition to the statutory legal rights of the end user against his or her direct contracting party and does not in any way from them detract.

### Repairs

In cases of no entitlement for warranty services, client will receive a quotation in writing for repair and return of the product(s) in question, valid for 14 days starting from the date of the quotation.

If during this period the client does not remit a written order and payment for return of the unit, either repaired or not, the client's consent with abandonment of the product will be assumed.

### Transport

Initial and return shipping and transport costs, to include a description of the defect and proof of purchase, are the responsibility of the claimant.





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