



## INSTALLATION AND OPERATING MANUAL

### AUP 04 – Automatic wall-to-floor stainless urinal with automatic flushing system

#### BASIC TECHNICAL INFORMATION

Power supply:	12 V, 50 Hz
Power requirement:	6 VA
Recommended source of power supply:	ZAC 1/20 (max. 3 x AUP 04) ZAC 1/50 (max. 8 x AUP 04)
Water inlet:	G 1/2"
Water pressure:	01 – 1,0 MPa (1-10 bar)
Required water flow capacity:	min. 12 l/min.
Time of flushing:	3 – 16 s (adjusted by producer to 6 s)
Outlet:	d = 50 mm
Weblink:	<a href="#">AUP 04</a>

#### Function of the automatic urinal

- AUP 04 is st. steel urinal with automatic flushing system. The urinal flushes automatically after being used, sensor is based on analyzing the chemical changes in the siphon. The electronic is activated after first use, which is indicated by LED diode blink. After 10 sec. diode blinks one more time, which means electronic is calibrated, after another 15 sec. el. magnetic valve opens and urinal flushes. The electronics does not react to people passing by, which prevents unnecessary flushing. After 24 hours of inactivity urinal flushes automatically. The electronics controls whether the flush was sufficient. If not, (e.g. due to low water pressure) the flush will be repeated.

#### Installation of the automatic urinal

##### Requirements for setting up the construction

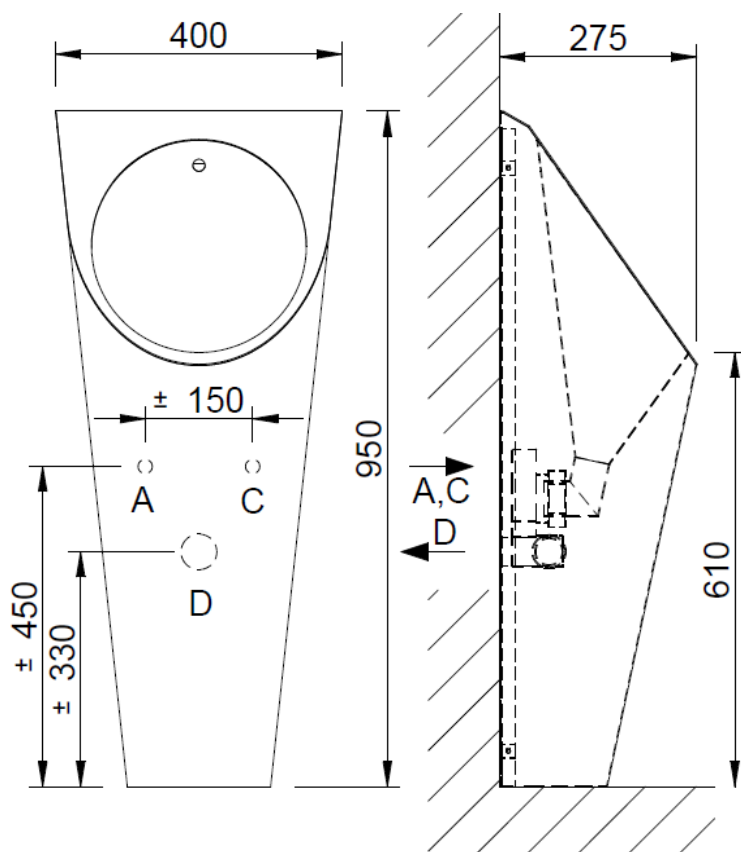
- Set-up water supply pipe G1/2" with the inner thread – according to the used ceramics. Water supply must be placed behind the ceramics in the place where the corner valve will not run into the siphon or ceramics.
- A filter must be set up in the water inlet to the urinal or group of urinals for removing mechanical dirt and a clap valve preventing reverse priming.
- It is recommended to set up the water inlet with a valve.
- Set-up outlet d = 50 mm (height according to the used ceramic). The sewer system must be designed in a way to prevent suction of water from the siphon. If there is no water in the siphon, the electronics may not react to short use of the urinal, which only fills up the liquid in the siphon (electronics is activated by liquid flowing through the end part of the siphon).
- Set-up cable CYKY 2A x 1,5 for the voltage 12V, 50 Hz from the source of power supply ZAC. Minimum length of free end of the cable is 300 mm and is placed in an open space inside the ceramics. It is recommended to fit the power supply with control switch to block the flushing during the cleaning with chemical detergents – then it will not be necessary to separately block each of the urinal (electronics reacts to the liquid with detergent flowing through the siphon, is activated and the cleaning detergent is flushed away). It is also possible to block the urinals separately with the setting magnet – see the section "Blocking"



## 6. Set-up tiling.

### Assembly

1. Set up the installation bar, so that the lower edge of the urinal touches the floor.
2. Set up the water inlet with the corner valve with the filter and connect the supply hose with the electromagnetic valve in a way to prevent its bending or twisting (observe the water flow direction through the valve!!).
3. Fix the self-priming siphon with electronics onto the ceramics. For easier fixing use the appropriate lubricant, specified by the manufacturer of sewer piping, to prevent possible damage of the siphon during installation. It is necessary to fix the siphon first on the urinal (not on the waste pipe in the wall), push it on the urinal gently but as much as possible (in order to lower liquid content in siphon). Connect the blade (knife) connectors to the valve (polarity is not important).
4. Set up the flexible hose from the siphon outlet to prepared sewage.
5. Connect the cable from source of power supply ZAC (polarity is not important).
6. Switch on power supply (from source of power supply ZAC) – automatic setting starts.
7. With the corner valve set the required water flow (according to used ceramics).
8. Fix the lower part of the urinal by screwing attached bolts.



### Setting

#### Automatic setting

- The electronics of the urinal is automatically adjusted after the source of power supply is switched on – it will be automatically adjusted to the particular conditions.
- **The adjustment of the electronics is processing without any necessary intervention. Do not use the urinal and do not pour any liquid into the urinal during the whole process of adjustment!** The process of adjustment takes max. 2 min. When connected to the source of power supply the urinal flushes automatically (time of the flush is approx. 20 s to fill the siphon completely and flush away eventual dirt from siphon) and remains for approx. 1 min in rest – the resting conditions of urinal are being set. Then the urinal flushes again. It is possible to use the urinal in approx. 15 seconds after the second flush.
- Automatic setting is not possible if supply of water is closed. It is necessary to open the water supply and repeat the whole process of setting.

#### Change of setting by the user

- User can change the length of flushing or block the flushing completely (e.g. for cleaning the urinal). All changes of initial setting are done by setting magnet (use any standard magnet), which must be attached to the electronics – on the other side of electronics than the cables are. It is also possible to re-



set the electronics through the wall of ceramics (i.e. without removing the urinal from the wall), but stronger magnet, which has a range of at least 50 mm, must be used. This magnet can be purchased separately - order no. 1190 100100. Attach the magnet to the ceramics in the place where is the location of electronics (in other cases the setting will not be successful – electronics out of the magnet range).

### Setting of flushing time

- Attach the magnet to the electronics within 20 second from connecting the urinal to the power supply. Electronics will provide 3 short flushes (each aprox. 1 sec.). During this time, the magnet must be still attached to the electronics. Subsequently water begins to flow constantly – as long as the magnet is attached, the water flows. When removed, water stops flowing. Time of the water flow = time of newly set flushing. Should the user try to set the flushing time out of allowed range of 3 to 16 seconds, the originally set time of flushing will be retained. If the new time of flushing was set successfully the urinal flushes automatically with the newly set time. Should the setting be unsuccessful the urinal will not flush.

### Blocking

- It is possible to block the urinal by means of attached magnet – e.g. for cleaning. Blocking process is possible only after 20 minutes from connecting the urinal to the power supply (within first 20 min of operation the electronics would be automatically switched into the setting mode, not blocking mode). Attach the magnet to the electronics – water starts to flow and flows for 10 s. It is not necessary to hold the magnet attached during the whole time of flushing – flushing will be finished automatically (without following short flush to prevent dilution of cleaning detergent). After this flush the urinal stays in rest mode for next 15 min. After 15 minutes, it automatically flushes including the following short flush (regardless to set length of flushing time). From now the urinal will be in standard operation mode again.

### Note

- Under the term of „flushing“ is understood:
  - flush with set length of time, pause and second short flush to fill-up water in siphon. This applies for both – operation and setting mode.
- **Note**  
When the urine is not flushed away from the siphon during the time when it should occur (e.g. due to closed corner valve) or the flush is insufficient (half-closed corner valve or undersized water supply), urinal will repeat flushing 3 times and then remains in rest. Automatic flush will be repeated every hour until the conditions in siphon improve.

### Flush test

- In order to produce a flush test of the urinal, it is sufficient to throw the content of the enclosed bag into the urinal. Automatic flushing will follow within next 45 sec.

### Indication of operational states

- Control LED (located directly on electronics)
- flashes 1x - electronics was activated – automatic flush will follow
- flashes 2x - the concentration of urine in the siphon is stable - from this moment begins the countdown of time to the flush, which is 15 s
- flashes 3x - after flushing indicates that the cleaning of siphon was sufficient and will not be repeated

### Notice

- The electronics must not come in any contact with water or lubricant during the assembly of the urinal. Should it by accident happen, first dry the electronics and only then connect it to the power supply unit – the automatic adjustment of electronics will follow. Do not adjust the wet electronics! The quiescent



conditions change after its drying and the electronics would not work reliably. In order to restore the adequate functions of the flushing system, switch off and on the source of power supply ZAC. The electronics will be set automatically.

- Automatic flushing system AUP 04 can be connected only to source of power supply ZAC, in other cases the manufacturer does not take the responsibility for reliable functioning and responsibility for eventual damages arising from connection to other voltages.
- Electric connection can only be carried out by a qualified and competent worker. It is necessary to carry out an initial revision of electric equipment before starting operation.
- The user is obliged to carry out revisions of the electrical equipment during its operational life.
- The electronics react to transmitted rays reflected from an object. Dark colors absorb such rays more and therefore they can react in a worse way and the radius is reduced.

### Explanation and delivery parts

1 pc. – self-priming siphon with electronics  
1 pc. – corner valve with filter  
1 pc. – electromagnetic valve  
1 pc. – st. steel urinal

1 pc. – flexible hose  
1 pc. – anchoring material  
1 pc. – flexible outlet

### Possible failures and their solution

Failure	Cause	Solution
After switched on, does not react (control light does not flash)	Defect in power supply.	Check the power supply – (voltage of terminal block must be 12 V (-15+30%) 50 Hz  Check the power supply – if connected to 230 V, electronics is irreparably destroyed
After switched on, flashes 1x and does not flush	Dirt in the filter of the corner valve.  Electromagnetic valve is not connected.  Corner valve is not opened  Incorrect source of power supply was used – e.g. switching power supply unit for halogen bulbs	Clean the filter  Connect the valve  Open the valve  Use the power supply unit recommended by the producer
Water flows constantly	Dirt in the valve	Clean the valve
After its use urinal flushes 2x	Water or urine scale in the siphon, or clogged siphon (e.g. with cleaning pastille)  Flushing time is too short (or water flow is too weak) – siphon is not cleaned sufficiently after 1 <sup>st</sup> flush	Clean the siphon, using suitable mechanical appliance or chemical agent  Set correctly (prolong) time of flushing, adjust the water flow
Urinal flushes when other urinal is used	Sewer piping is clogged with scale or sediments. Water does not flow off, could be even leaking into other urinals, automatic setting is not possible	Clean the sewer piping system – when flushing (even more than one urinal) water must reliably flow off – there must be no water in the urinal



		between the first longer flush and following shorter flush
--	--	--

## Maintenance and cleaning

- The device was made from the stainless steel of quality corresponding with ČSN 17 240 (AISI 304) standard and, therefore, it must not be operated in chemically-aggressive environment and
- **Preparations containing chlorine must not be used for its cleaning!!**
- Cleaning agents by WÜRTH are recommended:
  - Metal renewal agent - Order No. 893 121 1
  - Stainless steel spray treatment - Order No. 0893 121 – K.
- If corrosion has already occurred, it can be removed with a cleaner INNOSOFT B 570 from the company Emergo.

## Valve cleaning

- Screw out three spins holding the coil. Remove the coil; carefully take out plastic covering of the core (be careful not to loose the spring). Remove the membrane, clean the space underneath. Check out the clearness of both in the plastic centre of the membrane piece the valve together. During return assembly of the valve into the urinal it is necessary to observe the direction of water flow – it is indicated by an arrow on the valve.