



## Installation and operating instructions

### Automatic stainless steel sink with free-flow electric water heater

#### BASIC TECHNICAL SPECIFICATIONS

Sensor range:	Automatically self-adjusting
Supply voltage:	12V, 50Hz
Power input:	6 (10) W
Adjustable after-flow period:	0 – 4 s (adjusted to 1 s by the manufacturer)
Water pressure:	0.1 MPa to 1.0 MPa
Recommended power supply device:	ZAC 1/20 ZAC 1/50

#### Description of function of the automatic sink

- The sink is made of stainless steel and according to type intended for wall-mounting or floor-mounting and connection to cold water. The sink is equipped with a free-flow electric water heater and a touch-free outflow spout. Placing the hands inside the sink (scanning zone) activates the control electronics, which is indicated by blinking of the sensor light and the solenoid valve opens the water supply. This automatically turns on the free-flow water heater. When removing hands from the sink, the light goes off and after a pre-set time delay (dwell time), the solenoid valve shuts off the water supply. The free-flow water heater turns off automatically. The quantity of water flowing out and its resulting temperature (depending on the free-flow volume) is regulated by a 90° valve. In the case of permanent blocking of the sensor, the solenoid valve turns off the water after 30 seconds.
- The sensor range is automatically set after connection to the supply voltage.

#### Start/Stop mode

- After brief shielding of the sensor (at least 0.5 s), the control unit is activated and the solenoid valve opens immediately. The solenoid valve closes and stops the water supply by repeated shielding of the sensor. If the sensor is not shielded, the water stops running automatically after the pre-set period (the opening time).

#### Switching the sink from Automatic to Start/Stop mode

- Switch-off the power supply and wait for about 10 s. After this, point the remote control device at the sensor in the spout, press and hold the **RANGE (DOSAH)** button until the power supply is switched on. The light flashes and then flashes six times, confirming the Start/Stop mode. Release the reach button on DO – the automatic sensitivity adjustment is activated, indicated by rapid flashing of the light. The area in front of the sensor must be free throughout the adjustment. If there is an obstacle in front of the tap during the setting, a short range will be set after its removal (the range has been set automatically up to this obstacle). In this case, it is necessary to remove and insert the batteries (wait for discharge of the capacitor) – the automatic sensitivity is again adjusted. (You can use the same procedure to change the Start/Stop mode to Automatic sink mode with a range that covers the space under the spout – after change of this mode, the light flashes five times).



## Installation of the automatic sink

### Pre-installation preparedness

1. The water distribution Tr 1/2" is made ready according to the sink type.
2. The pipe supplying a sink or a group of sinks must be equipped with a **filter** that would remove mechanical impurities from water.
3. A down-pipe must be prepared for a pipe diameter  $d = 40$  (50).
4. A power supply cable CYKY 3Cx2.5 for the 230 V, 50 Hz power supply connected via an overcurrent protector with a cut-off current of 30 mA

### Installation of the automatic sink

1. Install the upper suspending batten – using screws and dowels or fix the sink to the wall or floor
2. Screw the 90° valve with filter into the water supply tube with inner thread. Turn the valve outlet so as to prevent kinking of the water supply hose.
3. Use a flexible hose to connect the sink.
4. Ensure that the drain tube exits into the drain pipe.
5. Attach a safety conductor to the grounding connection bolt. It is forbidden to operate the device without a grounding connection.

Connect the CYKY 3Cx2.5 (230 V) power supply cable

**ATTENTION!! Check if the phase has been disconnected from the heater – marked with the label with inscription 'connect after filling with water'.**

6. Connect supply voltage. Once turned on, the sensor's pilot light will blink 5 times and, after that, sensitivity will be adjusted automatically, which will be indicated by the pilot light's fast blinking – max. 10 s.

**During setting, the area in front of the sensor must be free – the sensor must not be reading anything!**

7. Fill the heater with water. The water must flow out without bubbles.  
**If the heater is not thoroughly filled with water, the heating element may be burnt when it is switched on.**
8. Connect the heater's power supply to the connecting terminal block.
9. Using the 90° valve to adjust the volume of water flowing out. (The water flow volume is also used to adjust the water temperature.)
10. Complete the mechanical assembly of the sink – optionally cover the bottom.
11. If required, adjust the temperature of the outflowing water using the adjusting screw. The screw is accessible upon removing the small white cover of the heater's connecting fittings. Turning the screw in results in lower water flow and increases the water temperature at the same time. When increasing the temperature of the outflowing water, make sure that the flow is not too restricted and hot water is not flowing out of the heater – risk of scalding.
12. The time delay period (time when water keeps running after removing hands from the scanning zone) is set by the manufacturer to 1 s. If necessary, this time can be changed via a remote control device that is not included in the supply and must be ordered separately. It is only possible to set the dwell time within 20 minutes after connection to the power supply! After setting the run-down time, the electronics will restart and a procedure identical to the switch-on procedure shall run – see Item 6.

### Supplied components

Sink with casing	1 pc	90° valve with filter	1 pc
CLAGE 3.5 kW free-flow water heater	1 pc	ZAC E power supply	1 pc
Spout	1 pc	Drain siphon	1 pc



Casing containing the electronics	1 pc	Connecting hose	1 pc
Solenoid valve	1 pc	Small installation material	

### Caution

- The sink with the free-flow water heater must only be connected to 230 V, 50 Hz voltage, otherwise, the manufacturer does not accept liability either for problem-free operation or for damage resulting from connection to a different voltage.
- The electrical connection of the device can only be performed by a person with the corresponding qualifications and professional competence.
- Before activation, it is necessary to perform an initial inspection of the electrical equipment pursuant to the applicable standards.
- The operator is obligated to perform regular inspection of the electrical equipment.
- The sink with the free-flow water heater must not be operated without connecting the protective conductor and casing, or if the free-flow water heater's casing or the ZAC E power supply are damaged.

### Non-warranty failures / troubleshooting

Defect	Likely cause	Remedy
Low water flow	Clogged filter	Clean the 90° valve filter
Water is not running	Dirty sensor	Clean the sensor
The water keeps running – the electronic system works correctly	Dirt in the solenoid valve	Clean the valve
Cold water is flowing	Heating coil in the heater is burned (as a result of an air bubble in the water)	workshop repair of the heater

### Replacement of the heating element

- All repairs can only be carried out by the manufacturer.

### Attention

- The free-flow water heater is a free-flow heater. This means that the water flow from the heater must not be restricted under any circumstances. For this purpose, the aerator must be cleaned regularly (according to water hardness).

### Warning

- If water supply was interrupted and there is a risk of creation of air bubbles, the automatic sink must not be used before it is thoroughly deaerated. Switch-off the power supply, disconnect the phase to the heater, switch-on the power supply, open the water flow and wait until the water flows without bubbles. Connect the heater, cover the power supply and optionally cover the sink (if it has a cover).
- The operator must ensure that water does not freeze in the sink – it could cause irreparable damage to the free-flow water heater and the solenoid valve.

### 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!!**
- **If the sink is made of stainless steel graded according to ČSN 17 346 (AISI 316), the concentration of dissolved chlorine must be max. 0.1 mg/l.**



- The recommended Cleaning agents are by WÜRTH:
  - Metal renewal agent - Order No. 893 121 1
  - Stainless steel spray treatment - Order No. 0893 121 – K.
- It is recommended to treat the chrome-plated parts with the LARRIN cleaner.
- If corrosion has already occurred, it can be removed with a cleaner INNOSOFT B 570 from the company Emergo.

### Valve cleaning

- Unscrew three screws that hold the inductor. Remove the inductor and carefully extract a core's plastic cover (beware of losing the spring). Extract the membrane and clean the area below it. Check permeability of both holes in the membrane's plastic centre and reassembly the valve. When reassembling the valve, it is necessary to retain the direction of water flow – it is marked by an arrow on the valve.

### Caution

- If the products are to be used in areas where “black” steel is processed, the black steel particles may deposit on the product surface and cause its corrosion.
- Therefore, it is necessary to clean the surface regularly and remove potential corrosion spots.