

# Water softening system IT 4000

## Ion exchange water softener



### Field of application

The SYR water softener IT 4000 is designed to protect water pipes and water heaters against scaling that reduces the water flow and leads to a high energy consumption. The device preserves valves and appliances from damage, which prevents cost-intensive repair works. With partially softened water, the consumption of laundry detergents and household cleaners is

much lower than with non softened water. There are no restrictions on use according to DIN 1988 part 2, section 8.3.2. The water softener capacity is designed to allow for the partial softening of the overall amount of water used in one-family and apartment houses as well as of partial water quantities used for hot water, swimming pools, washing machines and dishwashers.

### Design

The IT 4000's ion exchange resin is located in two separate containers. The regeneration of the exchange resin is divided into two consecutive cycles. During the regeneration process, both containers alternately provide for soft water. As a result, the consumer gets softened water any time even during the regeneration cycle. The IT 4000 is equipped with a touch-display, which allows to easily recall any kind of information. The regeneration conforming with DIN EN 14743 and DIN

19636-100 meets the requirements of an economical use of salt. The water softener is disinfected on a regular basis to prevent any contamination. The regeneration is carried out automatically by means of wear-free ceramic discs. The regeneration process lasting maximally 36 minutes for both containers allows to draw off softened water any time due to the alternately operating resin containers.

## Materials

The functional parts are made of high-quality synthetic material. The body and the internal synthetic parts are made of shock-resistant thermoplast and the rubber parts of ageing resistant elastomers. All other functional parts are made of a low-lead, dezincification resistant

gunmetal alloy and stainless steel. All materials used are state-of-the-art. All synthetic parts in contact with water meet the requirements of the German Public Health Office (KTW).

## Installation

Use DN 20 - DN 32 flanges from the extensive Drufi flange program to mount the IT 4000. Install the water softener close to and downstream of the water metering device. To prevent malfunctions, mount a drinking water filter (system Drufi) upstream of the water softener to offer efficient protection.

The IT 4000's optimal (most efficient) service pressure is 3-5 bar. In the event of higher pressures, we recommend the installation of a pressure reducing valve. The water to be softened shall be clear, free from solid impurities as well as iron- and manganese-free (values within the **TVO** limits).

Thoroughly flush the pipe prior to installation. Mount the required drufi connection flanges in vertical or horizontal pipes without applying stresses. All electrical connections are pre-mounted in factory. A (floor) drain

is required for the safety overflow. A waste water connection is necessary to drain the flushed water. Do not lengthen the factory pre-mounted hoses.

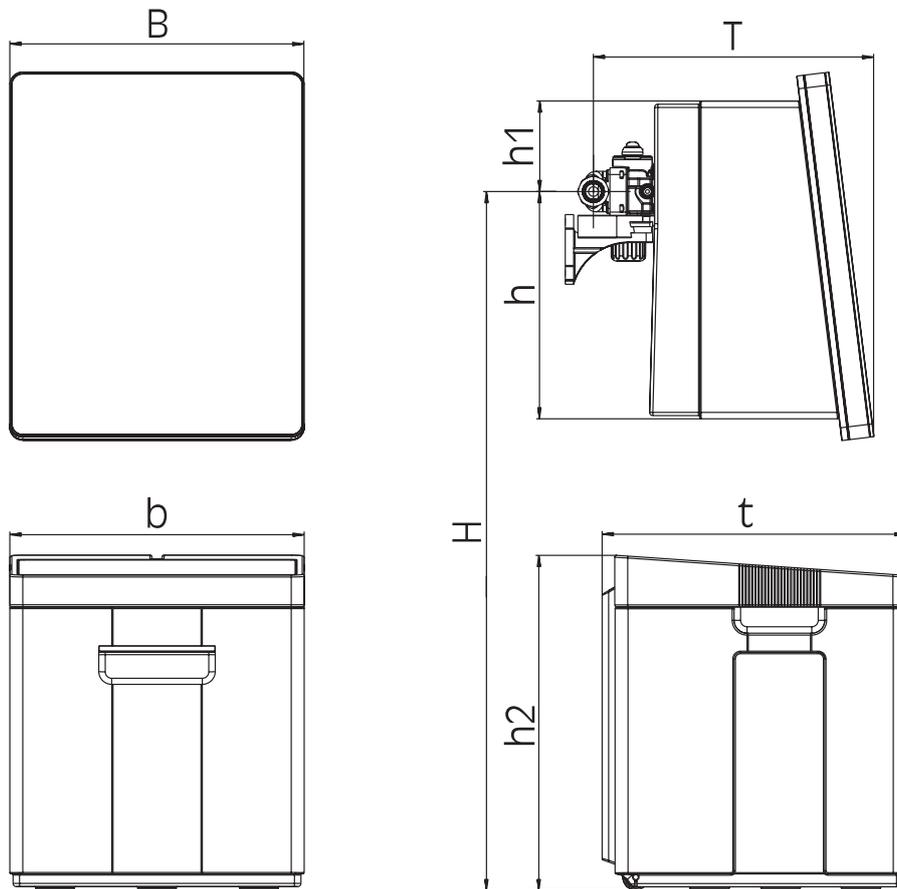
## Technical specifications

Inlet pressure:	10 bar
Service pressure:	min. 3 bar, max. 7 bar
Flow pressure at nominal flow rate downstream of the installation:	min. 2 bar
Service temperature:	max. 30°C
Fluids:	potable water
Mounting position:	main axis, vertical
Nominal flow rate:	1,7 m³/h
Pressure loss at nominal flow rate:	0,9 bar
Power supply:	230 V / 50 Hz / 15 W
Nominal capacity:	0,9 mol
Capacity per kg of salt	5 mol
Salt stock:	40 kg
Serial number:	4000.00.000

## Maintenance

As the water softener works automatically, the only thing to do is to refill salt on a regular basis, at the latest when the message „ Refill salt“ is displayed. The device has to be serviced at least once per

year, in case of collective installations, every six months. A maintenance contract between user and installer provides for safe and durable functionality.



Nominal size	DN 20 - 32	
Dimensions	T (mm)	433
	t (mm)	470
	B (mm)	455
	b (mm)	455
	H (mm)	980
	h (mm)	354
	h1 (mm)	141
	h2 (mm)	522

Components / Order numbers

①  
**Control unit**  
4000.00.900

②  
**Board**  
4000.00.901

③  
**Salt container**  
4000.00.903

④  
**Blending motor**  
4000.00.904

⑤  
**Operation tablet**  
4000.00.905

⑥  
**Bypass valve**  
1700.00.000

⑦  
**Removable shelf**  
4000.00.906

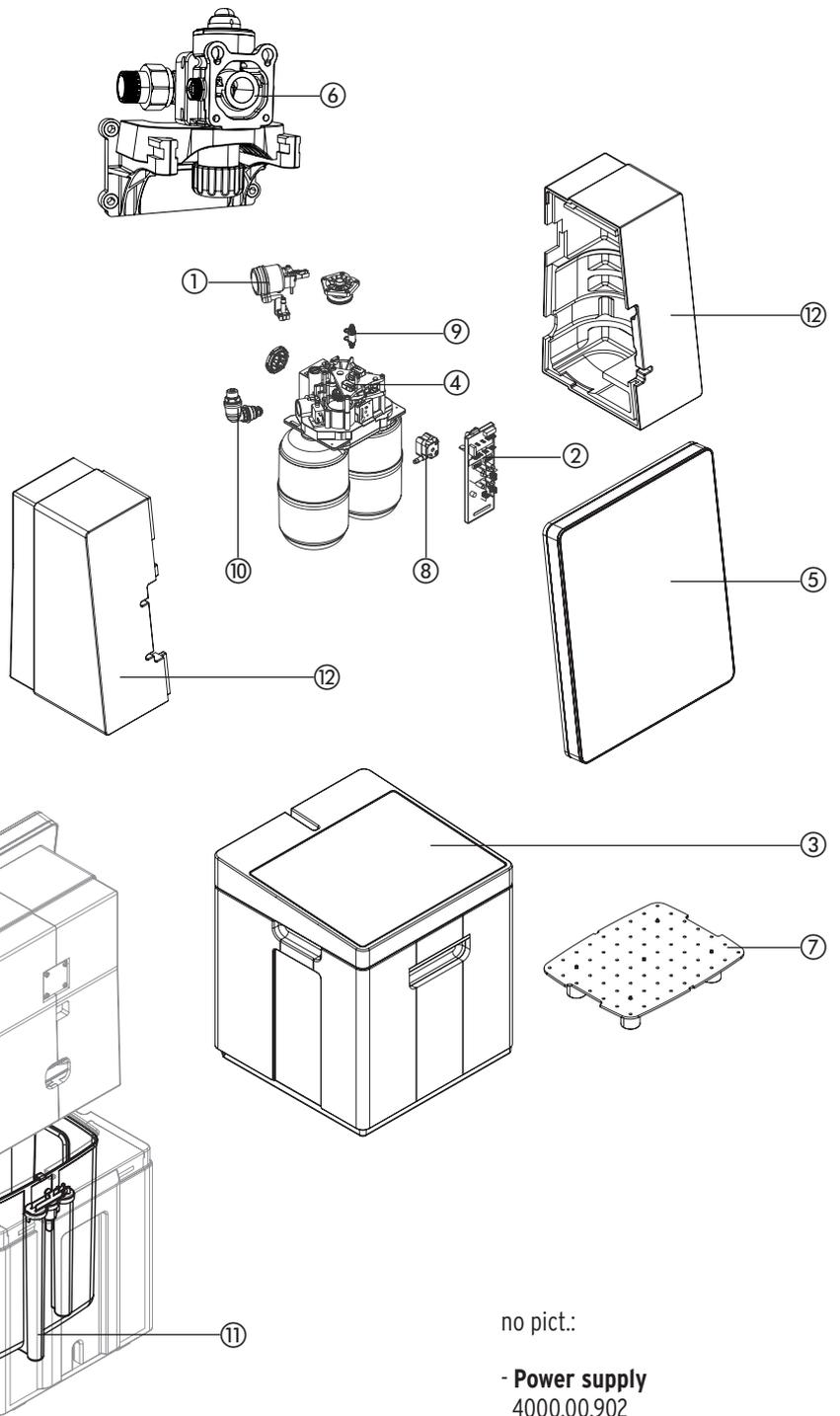
⑧  
**Injector**  
3000.00.906

⑨  
**Draw device**  
3000.00.908

⑩  
**Pressure reducing cartridge**  
3000.00.917

⑪  
**Intake strainer**  
3000.00.912

⑫  
**Cover**



**Combi flange**  
2315.00.071

**Double connection flange (parallel flange)**  
2315.32.030 (DN 32)  
2315.40.030 (DN 40)  
2315.50.030 (DN 50)

no pict.:

- **Power supply**  
4000.00.902

- **Regenerating salt (25kg)**  
3000.00.911

- **Titration test**  
3000.00.913

- **Maintenance kit**  
3000.00.920