

Complies with
the requirements of
TRD 604
72-h BOB



picture: SENSOTROL 2900

SENSOTROL 2000 - 5300

Duplex Water Softeners - quality controlled

Automatic, sensor-controlled softener producing soft water by means of ion-exchange. Especially suitable in case of fluctuating raw water hardness, irregular soft water consumption, the need to restrict hard water entry to the system is increased.

Regeneration is initiated automatically, regardless of the raw water hardness, as soon as the ion exchange resin has become depleted.

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Unit design

Two ion-exchange tanks made of glass-fibre reinforced plastic with PE inliner. Ion-exchange resin and supporting gravel for on-site filling.

ABS central control valve for each ion exchange tank (direct current flow)

Brine tank with salt tray, support, two standpipes, two brine valves, and plastic lid

Pre-mounted piping with manual shut-off valves

During regeneration, the soft water outlet of each filter is **automatically isolated** by an electrically controlled diaphragm valve

Pilot distributor controlling a hydraulically operated main control valve on each exchange vessel

Manometer for raw water pressure, manometer for soft water pressure

Water meter for exact determination of the soft water amount produced

Salt empty switch in the brine tank

Microprocessor control SENSOTROL

for fully automatic operation.

Sensor-controlled regeneration initiation with switch-over to the other ion-exchange tank. Controller with 3 function keys (context sensitive) and 4 control keys. 2 LEDs for operation and malfunction, graphic display for graphic representation of the current filter's operating mode, as well as for clear text display of all parameters relevant to operation.

Integrated history function allows tracing back all operating modes of the controller within at least 2 weeks.

Integrated SD card reader for storing all operating data and fault messages as well as settings and calibration data (several years of history). The data can be conveniently analyzed using common spreadsheet programs.

Alarm system: Alarm in case of low salt level, lack of brine (if no brine gets to the resin during regeneration), lack of capacity (no regenerated ion-exchange tank available), insufficient rinsing (lack of water during regeneration), excess of max. flow rate, defective sensor (installation then switches to volume-controlled operation automatically), low or excessive flow, water meter defective in sensor mode BOB.

Networking with PC (optional): Visualisation of all control actions via RS 232 interface, remote control of controller via PC, history tracking, manual control using a keyboard for maintenance purposes, modem interface, remote maintenance possible.

Display: Date, time, operating mode for each filter, alarm history, amount produced per filter and cycle

The installation fulfils the requirements of the German Technical Rules for Boilers (TRD 604) for 72 h continuous unattended operation.

Options

- Interface Profinet, item no. 541844, for transmission of data to the ZLT
- WUP-D9/ -D10 guarantees minimum flow rate
- Blending device VSE
- Regeneration with brine
- fast brine formation on request

Technical Data		SENSOTROL 2000	SENSOTROL 2900	SENSOTROL 3700	SENSOTROL 5300
Nominal capacity*	m ³ x °dH	2000	2900	3700	5300
Capacity	m ³ /h	20	28	37	53
Pressure drop	bar	1,5	1,8	2,0	
Flow min.	m ³ /h	2,50	3,63	5,0	
Salt consumption regeneration	kg	100	145	185	265
Flushing water per regeneration	l	3.816	5.385	7.241	9.841
Flushing water flow max.	m ³ /h	5,1	7,8	10,2	12,8
Raw / soft water connection	DN	65/50	80/65	100/80	150/100
Volume brine tank	l	1600		2 x 1600	
Height brine tank	mm	1675			
Diameter (outside) brine tank	mm	1290			
Height	mm	2700	2800	3000	
Width	mm	3350	3750	6100	6300
Depth	mm	1300	1500	2000	
Item no.		361 011	361 012	on request	on request
Voltage 230 V/50 Hz, raw water conductivity min./max. 200/1,600 µS/cm, operating pressure min./max. 3/6 bar, pressure fluctuation max. ± 0.5 bar, operating temperature min./max. 5/35 °C, *max. achievable capacity with respect to Mg ²⁺ and Ca ²⁺ for regeneration with full brining					