

Weichwassermeister® GSXplus

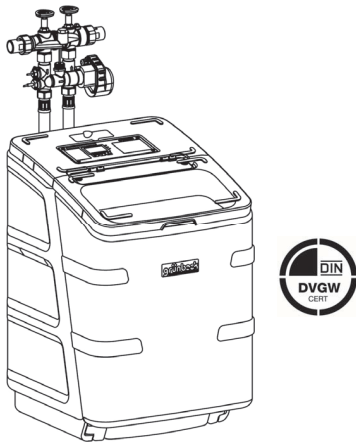


Fig. 1: Weichwassermeister® GSXplus

Designated application

The water softeners of the series Weichwassermeister® GSXplus are designed for the softening and partial softening of cold drinking water in case of a strongly fluctuating raw water hardness. They protect the water pipes and the connected water carrying systems from scaling or malfunctions and damage caused by scaling. As alternating systems they are suitable for the continuous supply of soft water.

Based on the latest findings with regard to the regeneration of ion exchangers, the Weichwassermeister® GSXplus excels with particularly low operating cost. By means of continuous conductivity measuring including temperature compensation, the various raw water qualities can be detected and automatically adjusted to the system capacity. Furthermore, the Weichwassermeister® GSXplus features an automatic blending valve which ensures a constant soft water hardness in case of varying withdrawal volumes.

Function

The water softeners Weichwassermeister® GSXplus work according to the ion exchange principle.

They feature a control unit and a central control valve for both exchangers and are volume-controlled. The regeneration is released as soon as the pre-determined water volume in a tank has been softened. Right before the second exchanger starts operation, it will be rinsed with fresh water.

Thanks to the improved brine supply, it is possible to operate the system at very short regeneration intervals with nearly no salt dissolving times which in turn has the advantage of high continuous flows.

Design

- Two exchanger tanks with double plastic coating, incl. special distribution system for optimum salt recovery and flow conditions. Filled with food-compatible ion exchanger resin and a support layer of glass for a water distribution without any dead spaces.

- performance plastics consisting of a transfer and regeneration valve. Both valves feature plastic/ceramic disks that are low on maintenance. Step motors ensure the precise positioning of the individual steps.

- Entire connection material for the water softener, consisting of connection block (made of brass low on dezincification) for installation into the water pipe and 2 hose connections for voltage-free connection of the water softener.

In the connection block 2 shut-off valves, an overflow valve as bypass (opening pressure 0.8 bar), a coarse filter, a non-return valve, a dosing point, a conductivity and a temperature measuring cell as well as an automatic blending valve are integrated.

- PE-HD tank to house the two exchanger bottles and the control unit.
- Brine tank, removable for easy cleaning and offering easy access for maintenance on the softening module.

Integrated brine valve with line for brine feed to regeneration valve and for make-up water to produce brine. Including safety float to avoid overflowing in case of power failure. The brine valve is equipped with stainless steel electrodes to adjust the brine volume. A disinfection cell is located at the brine valve which disinfects the resin bed according to the electrolysis principle at every regeneration.

- Control unit with back-lit LC display, fault signal contact (controls all system functions, indicates operating states and errors) and programmable input. Simplified indication of system functions via LEDs (red, yellow, green).
- All system relevant data is permanently programmed in the control unit.

The system is equipped with noise suppression and meets the requirements of the EMV regulations. System operation with protective low voltage of 24 V. The system is protected from contamination by means of a transparent, two-piece cover.

All components that come into contact with the drinking water meet the requirements of the DVGW.

Scope of delivery

Weichwassermeister® GSXplus with conductivity resp. temperature measuring and automatic blending valve, complete with water test kit "total hardness", operating card, yellow instruction note and operation manual.

Accessories

The standard Weichwassermeister® GSXplus water softeners are equipped with an EXAccount interface which allows the use of an EXADOS® dosing computer to protect galvanised pipes from corrosion and to protect copper pipes by means of alkalisation without installation of an additional turbine water meter. The dosing point is located at the connection block.

Dosing computer EXADOS® EK 6 – GSX/VGX

for connection to Weichwassermeister® GSXplus.

Order no. 115 430

Dosing computer EXADOS® ES 6 – GSX/VGX

for connection to Weichwassermeister® GSXplus.

Order no. 115 440

Spare water test kit "total hardness"

For quick and simple determination of the total hardness of the water.

Order no. 170145

Regeneration salt

acc. to EN 973 type A, 25 kg bag

Order no. 127 001

GENO®-STOP 1"

The new safety device GENO®-STOP provides overall protection against water damage. The GENO®-STOP can be equipped with up to 2 wired water sensors and 5 wireless sensors.

- For additional models, please inquire-

Order no. 126 875

Regeneration water pumping system

Salt water resistant delivery pump to discharge the regeneration water in case of drain heights starting from 1.8 m (from the ground). Electrical activation by means of the control unit.

Order no. 188 800

Connection elbow 90° -1" (2 pcs)

In case of confined installation situations, the connection hoses can be laid closer to the water softener.

Order no. 187 865

Supplementary soft water outlet

For installation in the soft water outlet between the water softener and connection block incl. sampling valve and non-return valve.

Order no. 187 875

Double screw connection G1 ¼

For direct connection of the drinking water filter (only 1") and the connection block, incl. two flat seals.

Order no. 151 072

Drain connection DN 50 acc. DIN EN 1717 for small water softeners

Connection accessories for DIN-conform waste water connection DN 50.

Order no. 187 840

M bus measuring transducer D-DAM

to transmit the flow rate and counter reading as well as statistical values of a water

meter by means of M bus (IEC 870). In addition: flow-controlled pulse output, analogue output and relay contact to Grünbeck control unit.

Order no. 115 850

Extension set for connection hose

to extend the hose to a length of 1.6 m, consisting of
2 coupling pieces
2 flexible connection hoses

Order no. 187 860e

Installation requirements

Please observe local installation directives, general guidelines and technical specifications.

A drinking water filter and, if necessary a pressure reducer (e. g. BOXER® KD) must be installed upstream of the systems.

The installation site must be frost-proof and ensure the system's protection from chemicals, dyes, solvents and vapours. For electrical connection, a shock-proof socket within 1.2 m of the system is required. A drain connection must be available to discharge the regeneration water.

In case the residual water is directed to a lifting system, make sure that this is salt-water-proof. The installation room must have a floor drain. If no floor drain is available, a corresponding safety device has to be installed. If the softened water is intended for human consumption in the sense of the Drinking Water Ordinance, the ambient temperature must not exceed 25 °C.

In case of solely technical applications, the ambient temperature must not exceed 40 °C. According to the German Drinking Water Ordinance, the conductivity of the raw water must be < 2500 µS/cm.

According to DIN EN 806-5, ion exchanger systems must be submitted to regular functional checks by the operator and maintenance by an authorised customer service company. According to the Drinking Water Ordinance, the conductivity of the raw water must be < 2500 µS/cm.

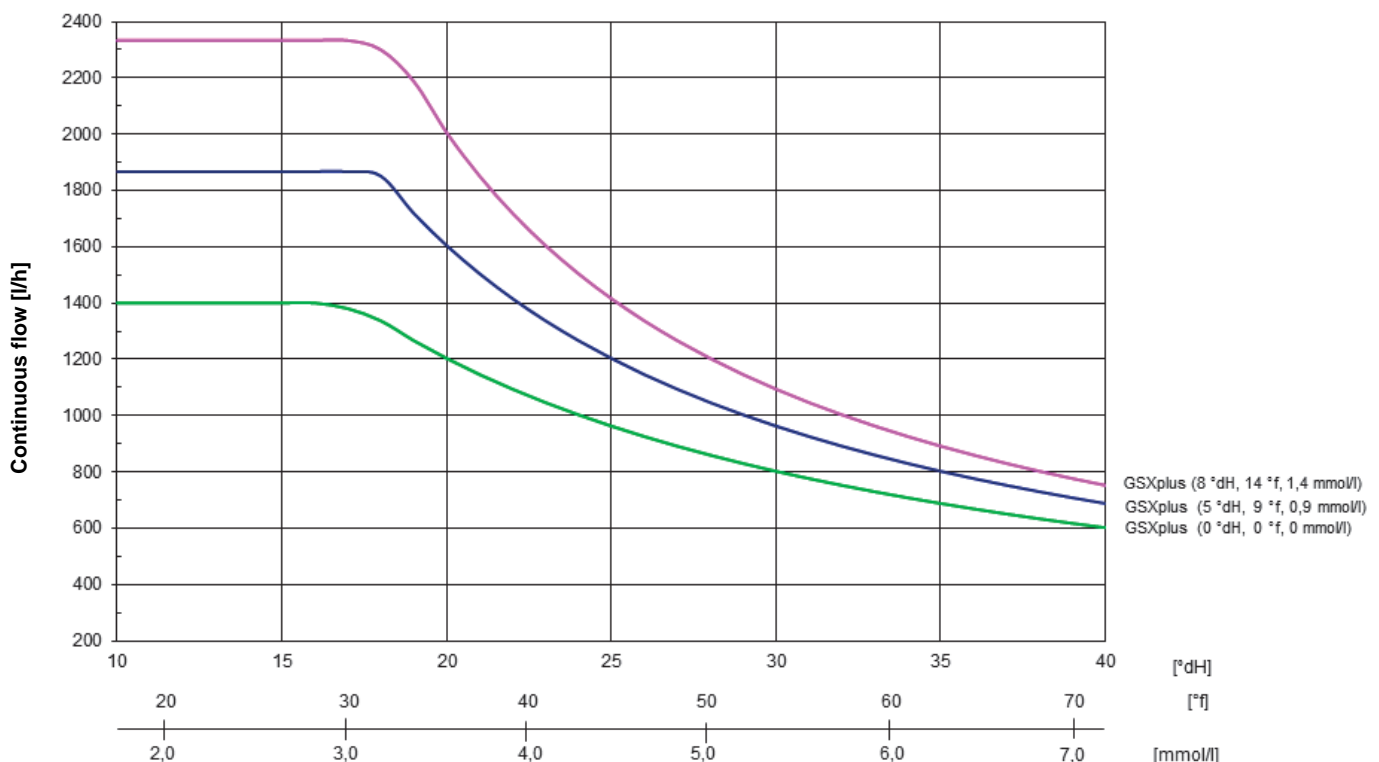


Fig. 2: Continuous flow Weichwassermeister® GSXplus

Technical specifications		Weichwassermeister® GSXplus
Connection data		
Nominal connection diameter		DN 25 (1" male thread)
Drain connection, min.		DN 50
Power supply	[V]/[Hz]	85-265/50-60 (system operation with protective low voltage)
Connected load	operation = max. [VA] standby [W]	17 1.5
Protection type/protection class		IP 54/I
Performance data		
Nominal pressure		PN 10
Operating pressure min./max. (recommended)	[bar]	2.0/8.0 (4.0)
Nominal flow* (0 °dH, 0 °f, 0 mmol/l)	[m³/h]	1.4
Nominal flow of soft water with blending (raw water hardness 20 °dH (35.6 °f, 3.56 mmol/l), blending hardness 8 °dH) (14.2 °f, 1.42 mmol/l)	[m³/h]	2.3
Pressure loss	[bar]	0.8
Nominal flow acc. to DIN EN 14743 or Kv-value (at a pressure loss of 1.0 bar, only as theoretical value for comparison)	[m³/h]	1.7
Nominal capacity	[mol]	1.6
Capacity per kg of regeneration salt	[mol/kg]	4.6
Dimensions and weights¹⁾		
A Width of water softener	[mm]	485
B Height of water softener	[mm]	730
C Depth of water softener	[mm]	535
D Height of safety overflow of brine tank	[mm]	530
E Connection height of control valve (soft water)	[mm]	440
F Connection height of control valve (raw water)	[mm]	490
G Installation length without screw connection	[mm]	190
H Installation length with screw connection	[mm]	271
Operating weight, approx.	[kg]	111
Transport weight, approx.	[kg]	51
Filling volumes and consumption data		
Resin volume (per exchanger tank)	[l]	6
Salt consumption per regeneration, approx.	[kg]	0.350
Max. capacity of brine tank	[kg]	65
Salt consumption	[kg / m³ x °dH]	0.039 (0.022 ⁴⁾ / 0.22 ⁵⁾
Rinsing water volume, max.	[m³/h]	0.44
Total waste water volume per regeneration, approx.	[l]	25
Waste water volume	[l / m³ x °dH]	2.8 (1.56 ⁶⁾ / 15.6 ⁷⁾
General		
Suitable for homes with ... families (up to ... persons) ²⁾		1 – 5 (12)
Water/ambient temperature, max. ³⁾	[°C]	30/40
DVGW registration number		NW-9151CM0060
Order no.		187 540
<p>* The max. continuous flow decreases in case of high raw water hardness, refer to fig. 4 „Continuous flow“ .</p> <p>1) All indications are approximate.</p> <p>2) Application recommendation for Switzerland: GSXplus for 1 – 3 family homes.</p> <p>3) Refer to installation requirements!</p> <p>4) [kg/m³ x °f]</p> <p>5) [kg/mol]</p> <p>6) [l/m³ x °f]</p> <p>7) [l/mol]</p>		

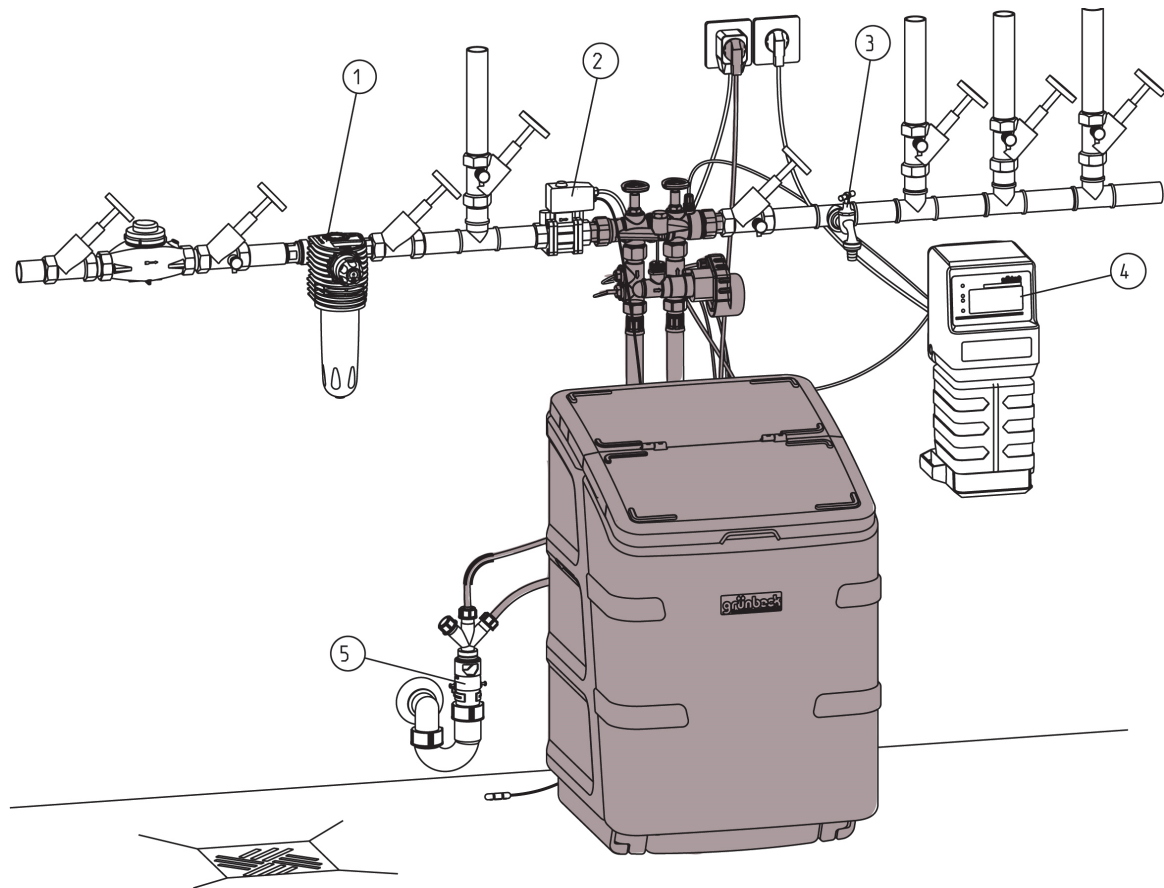


Fig. 2: Installation drawing of water softener Weichwassermeister® GSXplus

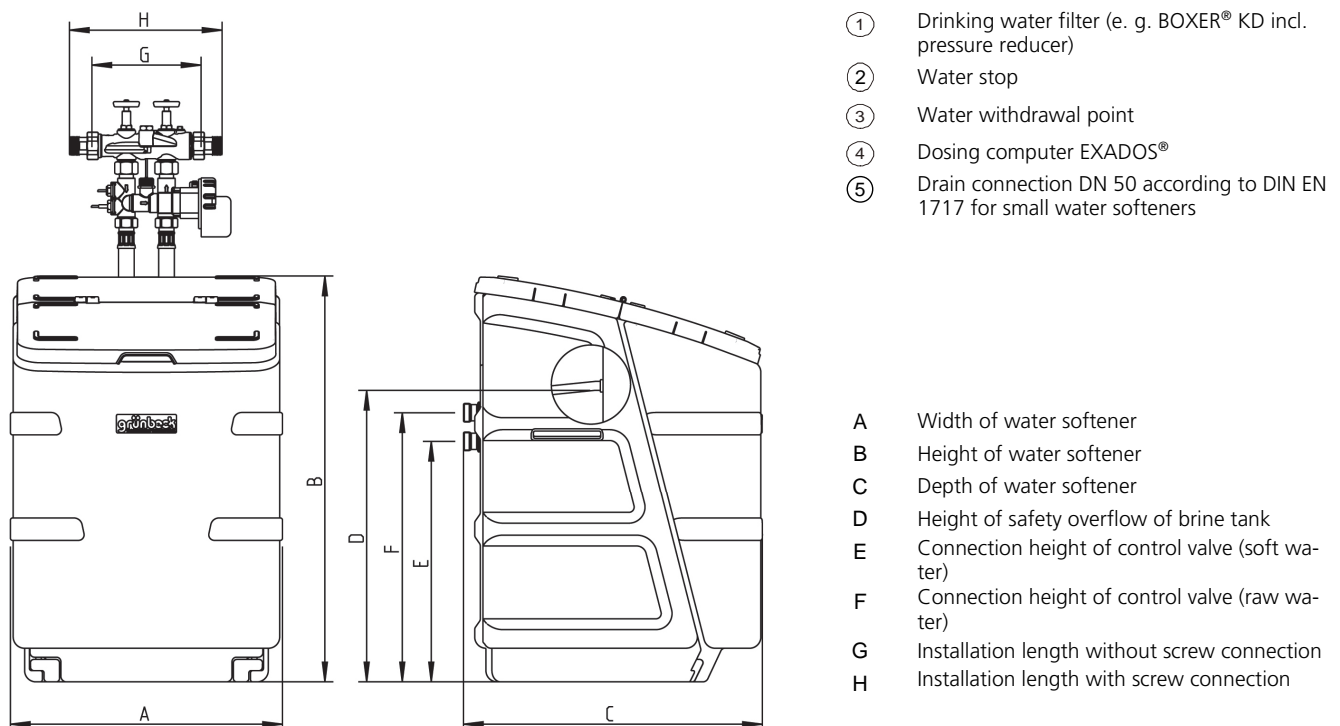


Fig. 3: Dimensional drawing of Weichwassermeister® GSXplus