

HYDRO ION® Duo - C - CL Water softener

Application

HYDRO ION® Duo - C - CL water softener for softening / partial softening of cold drinking water.

Design in accordance with DIN EN 14743 and DIN 19636-100. Volume controlled regeneration in counter-flow process with reduced salt and system hygienisation.

The unit can be installed for process water treatment as well (by using full salt mode).

All inlet connections must be protected via spring loaded non-return valves. This dispenses the installation of a system separator.

Duplex water softener for the permanent supply of subsequently installed consumers with soft water.

Function

The HYDRO ION® Duo - C - CL water softener system operates by the method of ion exchange.

HYDRO ION® Duo - C - CL water softener designed as Duplex softener with separate brine tank.

Regeneration of the system starts fully automatically controlled by the water flow meter connected to the central control valve. The control box monitors the produced quantity of soft water. If the set amount of soft water is reached, the regeneration starts. In case of small water removal and for the purpose of system hygiene, a forced regeneration is initiated after 4 days at the latest. Hygienic protection which disinfects the ion exchange resin whilst regeneration is installed in the brine intake line.

Monitoring on display, such as residual capacity, flow rate, error detection, history and diagnose function.

Manual start of regeneration possible.



Description / Scope of supply

HYDRO ION® Duo - C - CL water softener consisting of:

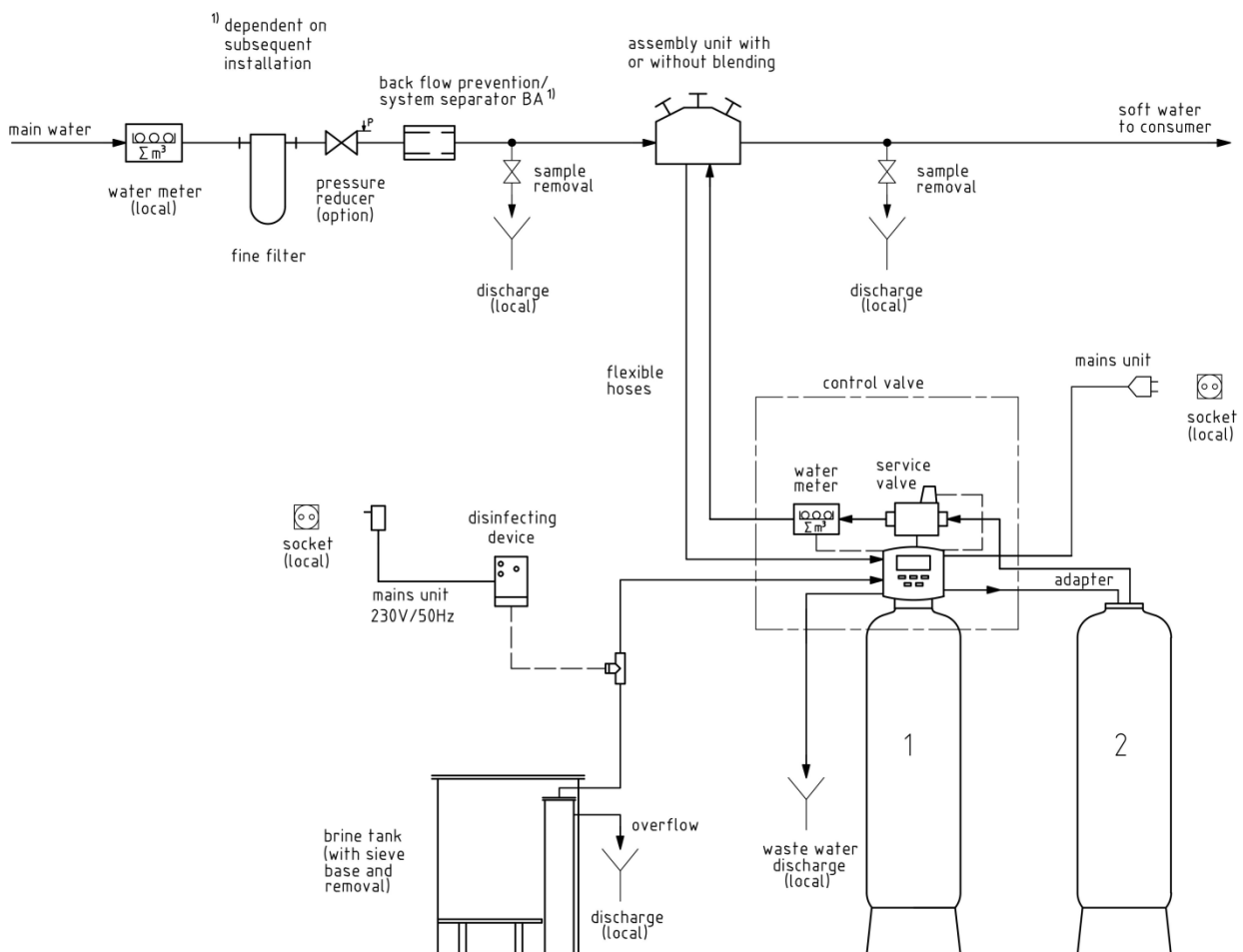
- 2 x pressure vessels
- 2 x ion exchange resin (food quality)
- 1 x central control valve „Twin“ of Noryle (1“) incl. water meter and operating valve
- 1 x mains unit
- 1 x fitting element for the connection of the second pressure vessel inclusive of connection pipes
- 1 x brine tank with brine tube and overflow
- 1 x brine safety valve
- 1 x input for external regeneration release
- 1 x hygienic protection (3/8“) with control unit
- 1 x operation manual

Accessories

- | | |
|--|------------------|
| - Mounting unit with blending and backflow preventer
DN 32 (pipe connection)
DN 25 (connection softener) | Art.-No. 511.109 |
| -Flexible hoses 1" (2 x cap nut) | Art.-No. 001.034 |
| - Measuring kit total hardness | Art.-No. 600.100 |

Information / Installation conditions

- Technical Data and general technical guidelines as well as all local installation regulations shall be observed.
- The regulations as per DIN 1988 require a safety stop against backflow (system separation).
- A fine filter shall be installed before the softener to prevent particles penetrating the pipeline.
- The ambient temperature and any possible radiation heat shall not exceed 40°C.
- The installation site shall be protected against frost.
- The installation area shall be free from vapour from solvents, colour, lacquer and chemicals.
- Mains sockets (230 V / 50 Hz) for softener and disinfection unit shall be provided adjacent to the plant.
- A drain (min. DN50) shall be provided to discharge the wash water into channel.
- Any lifting appliance used shall be resistant against salt water.



Technical Data

Type HYDRO ION®		Duo - C - CL
Connection mains / soft water line		DN 25 (1" IG)
Drain line (min.)		DN 50
Mains electrical connection		230 V / 50 Hz
Electrical connection (secondary)		24 V AC
Current	A	0,5
Water temperature (min./max.)	°C	5 / 30
Ambient temperature (min./max.)	°C	5 / 40
Operational pressure (min./max.) ²⁾	bar	2,0 / 8,0
Performance data		
Nom. flow rate ^{1), 3)}	m ³ /h	1,4
Max. nom. flow rate (blending 300 ppm to 60 ppm)	m ³ /h	2,4
Nom. capacity at 300 ppm – full salt rate ¹⁾	m ³	0,9
Salt consumption regeneration – full salt rate	kg	1,2
Waste water volume regeneration – full salt rate	Litres	43
Nom. capacity at 300 ppm – reduced salt (DIN EN 14743)	m ³	0,6
Salt consumption regeneration – reduced salt	kg	0,5
Waste water volume regeneration – reduced salt	Litres	37
Volume and weights		
Resin vessel volume	Litres	8,3
Resin volume	Litres	2 x 6
Max. volume brine tank	Litres	18
Regeneration salt storage	kg	15
Dimensions (H x W x D)	mm	630 x 680 x 550
Service weight (system)	kg	60
Article No. Duo - C - CL (without accessories)		530.460

- 1) Parameters dependent on operation mode and feed water quality
- 2) The flow pressure is important for the min. operation pressure and the static pressure for the max. operation pressure
- 3) Nom. flow – full salt rate at < 2 ppm
Nom. flow – reduced salt volume at < 10 ppm

