EUROWATER

A GROUP OF CO-OPERATING EUROPEAN WATER TREATMENT SPECIALISTS

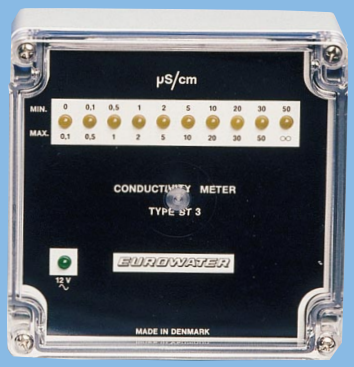
DEMINERALIZATION

THE SILEX SYSTEM

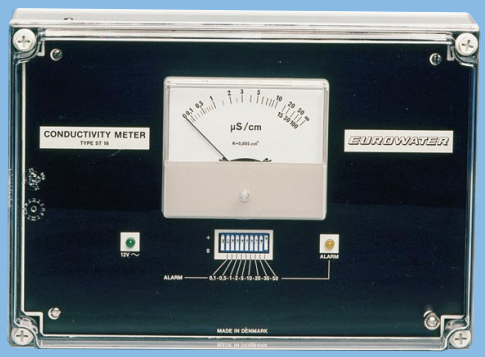
- **DEMINERALIZED WATER OF HIGH QUALITY**
- **SUITED FOR LOW WATER CONSUMPTION**
- **CARTRIDGE REGENERATION AT OUR FACTORY**
- **NO USE OF CHEMICALS**
- **SIMPLE AND SPACE SAVING INSTALLATION**
- **QUALITY CONTROL WITH OR WITHOUT ALARM FUNCTION**

SILEX I B

SILEX II B



CONDUCTIVITY METER
TYPE ST 3
Without alarm
measuring range 0-50 µS/cm



CONDUCTIVITY METER
TYPE ST 16
With quality limit and alarm
Measuring range 0-100 µS/cm

THE SILEX SYSTEM
The system is based on service regeneration performed by the EUROWATER regeneration centre. The regenerated ion exchangers are forwarded in cartridges. It is a task of few minutes to exchange the cartridges, after which the system is ready for use again. The system works cleanly, and is simple and space saving.

MODE OF OPERATION
The Silex cartridge contains a mixture of charged cation and anion exchangers. During passage through the cartridge, the dissolved salts of the raw water are exchanged by hydrogen and hydroxyl ions, respectively. The result is demineralized water of high quality.

APPLICATION
Silex water is often used instead of destilled water. Each cartridge represents one portion of salt-free water drawn direct from the faucet. The service system is ideal for small water consumption, as equipment for regeneration on the spot demands comparatively high investments along with time-consuming labour, and causes problems with corrosive regeneration liquids and the neutralization of waste water.

SILEX TYPE I B
The filter house is made of plastic and designed for wall mounting. By means of two quick-connective couplings, the plant can be used either in installations without pressure, e.g. after a cock or in installations with full waterworks pressure which, however, must not exceed 6 bar.

SILEX TYPE II B
Filter house and pipe system are made of plastic. The unit is dimensioned for an operation pressure of max. 6 bar and used in installations with waterworks pressure. Pipe connections, faucets etc. after the unit are to be made of PVC, or acid-proof stainless steel.

CONTROL EQUIPMENT
The conductivity of the Silex water - and thus its quality - can be read continously on an electronic conductivity meter. When the quality limit wanted is exceeded, the cartridge is exchanged, and the unit is ready for service again. The conductivity meter can be delivered with or without alarm signal.

SERVICE REGENERATION
The exhausted cartridge is returned to the EUROWATER regeneration centre, where it is treated with chemicals, separated into cation and anion exchangers (which are changed with hydrochloric acid and sodium hydroxide, respectively), rinsed, mixed and packed. Each regeneration series is subject to a careful quality control. If carried out on the spot, this treatment would demand a relatively expensive equipment.

WATER QUALITY
The conductivity of water is indicated in micro Siemens (µS/cm). The lower the conductivity, the lower the salt content of the water. A Silex cartridge imparts about 0.1 µS/cm (corresponding to a resistance of 10 million ohm) to approx. 60% of its capacity. The remaining 40% of the capacity have a conductivity below 5 µS/cm.

CARTRIDGE CAPACITY
The basic capacity stated is calculated for ordinary, clean waterworks water with a moderate salt content. It indicates the amount of raw water - with a total salt content equivalent to 1°GH (one German degree) - which can be demineralized per regeneration. The actual capacity per regeneration can be calculated by dividing the basic capacity by the salt content of the raw water measured in equivalent hardness.

SPECIFICATIONS

Type	Basic capacity at 1°GH	Flow rate	Maximum operation pressure	Total height	Max. length	Connection	Cartridge weight
Type I B	5.400 l	2 l/min.	6 bar	940 mm	230 mm	1/2” hose	5 kg
Type II B	19.000 l	5 l/min.	6 bar	950 mm	300 mm	1/2” BSP	20 kg

Raw water temperature: Max. 20°C. Supply voltage: 1 x 230/12 VAC.

WATER QUALITIES

Waterworks water	500-700 µS/cm
Distilled water in bulbs	7-20 µS/cm
Distilled water	7-10 µS/cm
Quartz-distilled water	approx. 0,5 µS/cm
Silex water	approx. 0,1 µS/cm

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