

WaterMATIC KaIGUARD®+ Water Treatment for Limescale

Model KaIGUARD®+ 22 - is a new and unique system (2003 patent pending) using an enhanced electrolytically driven specialised zinc alloy electrode unit. This will allow successful management of extremely hard water situations. The system is a totally environmentally friendly non-polluting means of water treatment ideally suited to all domestic and light commercial applications.

It will protect complete water pipe systems by eliminating the formation of, and effecting the removal of existing, limescale encrustation, thereby ensuring continued maximum thermal efficiency and long equipment life (water heaters, boilers, immersion heater elements etc.).

The KaIGUARD®+ electrode unit is an enhanced sacrificial zinc alloy cathodic cell designed to work in conjunction with a product specific power-pack with a built in constant current amplifier to ensure the desired water treatment parameters. It does not use any chemicals or salt, nor employ any unusual electrical or electronic field effects. It provides a "permanent" water treatment, so is appropriate for stored water systems as well as direct mains.



The electrode unit should be replaced after about 5 year service (depending on water quality and hardness).

The product specification for system / installation design purposes is :-

Manufacturer	: WaterMATIC , (Division of Salamander (Engineering) Ltd., UK)
Product Code	: KALG22P
Controller Input	: Input either 230/240v 50 Hz single phase (EC).
Controller Output	: 0 – 10 v, 3, 5 & 9 mA d.c. (set at 3 mA), conductivity independent, constant current amplifier. Output provided through a two core flat pvc cable with moulded co-axial plug.
Construction	: <u>The Controller box</u> is a standard ABS plastic housing containing transformer circuit board and fuse protection (500mA) having a moulded mains plug pins to allow direct mains socket outlet connection. The controller comes with a 1.5 metre secondary output cable for connection to the electrode unit. : <u>The Treatment unit</u> - The electrode assembly is pressed into the copper body and locked into position. The body diameter is reduced at the ends and brazed to provide compression connectors. The treatment unit cannot be opened.
Pipe Sizes	: 22 mm copper pipe, ¾" BSPT steel or 15mm copper pipe.
Connection	: 22mm copper 'compression'. It can be adapted for other pipework
Design Flow	: 0 - 37.0 l/min., (2.22 M ³ /hr) requiring Δp = 0.15 bar
TüV Δp=½ Bar Flow	: 65 l/min (3.9 M ³ /hr) - (RWTüV test parameter)
Length	: approximately 150 mm
Depth of installation	: 55 mm
Weight	: 1.0 kg (incl. power-pack)
Test Regulations	: BS EN ISO 9002 (1994) accredited; (UK) WRAS Certification 0107038; In-line module tested (Germany) RWTüV Prüfprogramm M 30/94 Cert. Nr. 2684/95; EMC – EN 50081-1 50081-2 compliant.

The KaIGUARD®+ (tested to 30 bar) is designed to work in a max. system pressure of 10 bar treating a mains water supply at between 2°C - 40°C, with a max. system flow rate of 2M/sec. (for silent operation) in the nominal pipe size for the product. The water should have a pH range between 5.0 to 8.5.

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Technical Specification subject to change (23/8/05 – MJP).