

WaterMATIC KaIGUARD⁺ Limescale Water Treatment

Model : KaIGUARD⁺ 42 - is a new system (**2003 patent pending**) combining an enhanced electrolytic controller driving a dedicated and specialised zinc alloy electrode unit. This will allow the management of extreme and severe hard water situations (to over 600 ppm). The system is a totally environmentally friendly non-polluting means of water treatment.

The KaIGUARD electrode unit is an enhanced zinc based sacrificial cathodic cell designed to work in conjunction with a sophisticated controller to maintain the desired water treatment parameters using 'feed-back' electronics.

The specialised electrode unit is designed to be replaced after a 5 to 8 year service period.

It will protect complete water pipe systems by eliminating the formation of, and effecting the removal of existing, limescale encrustation throughout thereby ensuring continued maximum thermal efficiency and long major equipment life. This will also assist towards compliance with carbon emission regulations.

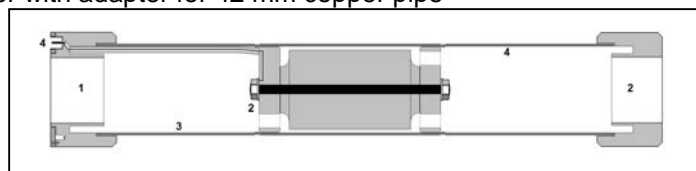
It does use any chemicals or salt, nor any unusual electrical or electronic effects.

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

- Manufacturer** : Salamander (Engineering) Ltd., U.K.
- Product Code** : KaIGUARD⁺ 42 controller & electrolytic cell
- To suit Pipe Size** : 42mm O/D (1½" BSP)
- Controller** : Input either 230/240v 50 Hz Single Phase (EC) or 110/120v 60 Hz. Single Phase (USA), fitted with a 2 metre cable with a moulded plug.
- Design Output** : 0 – 10 v, 1 - 500 mA d.c, conductivity independent, with constant current amplifier. Output provided through an installed 3 metre twin core flexible cable terminated to a co-axial connection.
- Features** : Provides visual data to set and monitor correct level of treatment, with LEDs showing power on, fault state with alarm, anode life remaining, and secondary circuit output confirmation.
- Dimensions** : 193 mm (W) x 103 mm (D) x 180 mm (H)
- Controller Weight** : 1.32 kg incl. cables
- Test Regulations** : EMC – EN 50081-1 50081-2
- Construction** : The control box is a standard IP65 ABS plastic enclosure with a transparent front cover to allow visual access to the meter display. The controls are inside the front cover and allow the unit to be used for a wide range of water pipe installations. The box is suitable for wall mounting, and comes with a 2 metre power cable and a 3 metre secondary control cable for connection to the electrode unit.



- Electrode Unit** : to suit 1½” BSPT steel pipe or with adapter for 42 mm copper pipe.
- Connection** : 1½” BSP Female Iron
- Pipe Size** : BSPT steel pipe or with adapter for 42 mm copper pipe
- Connection** : 1½” BSP Female Iron
- Design Flow** : 0 - 142.0 l/min (15.3 M³/hr) requiring $\Delta p = 0.26$ bar
- $\Delta p = \frac{1}{2}$ Bar Flow** : 195 l/min (11.7 M³/hr)
- Length** : 505mm
- Diameter** : 67 mm (Main body)
- Weight** : 4.89 kg
- Test Regulations** : BS EN ISO 9002 (1994) accredited; (UK) WRAS Certification 0107038; (Germany) RWTüV Prüfprogramm M 30/94 Cert. Nr. 2684/95
- Materials Used** : Outer Body - Copper BS 2871 Pt.1 Table X
 Anode Support - Grilamid L20G Natural
 Anode Material - Pure Zinc with Magnesium BS 6561
- Construction** : The anode assembly is pressed into the copper body and locked into position. The body diameter is reduced at the ends and brazed to the end connectors. The unit cannot be opened.



1 Meter
 2 Pipe Connection
 3 Zinc (Anode)
 4 Copper Wall (Cathode)

Patent Pending

NB : With on-going product improvement, we reserve the right to change or modify the specification without prior notice being given. Where pertinent, users will be advised and revised specification sheets issued.

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Technical Specification subject to change (16/3/05 – MJP).