

# The Watermark

The Newsletter From

**Automated Water & Effluent Ltd**

Spring 2012

## NEW MO5-CT-CDRH COOLING WATER CONTROLLER

We are delighted to announce another new cooling water controller to enhance our range of controllers. The MO5-CT-CDRH is a fully featured versatile instrument designed for the control of evaporative cooling towers. No more long complex menus the menus are so simple its easy to set up the MO5-CT-CDRH even without the manual, simply press enter and the menu guides the user through all the setting which are displayed on a large custom backlight LCD display.

The MO5-CT-CDRH features biocide dosing by 28 day real time clock, Oxidising biocide dosing by redox (ORP) control which can be on/off or time proportional control, Water meter input for make up water flow and timed output for the inhibitor dosing pump or inhibitor dosing without the water meter by timer control.

TDS bleed controlled by a built in

conductivity controller with adjustable set point, hysteresis and bleed limit timer.

There is a common alarm relay for any of the three low chemical levels, no sample flow, bleed limit timer and high or low conductivity values. Two analogue outputs of 4 – 20 mA available for connection to BMS monitoring systems one for conductivity and redox millivolt potential. All at an affordable price and low cost of ownership.

As the MO5-CT-CDRH is designed in Europe to make life easy it features a switch mode power supply which



means it will work on any supply between 100 volts and 240 volts AC and what's more we have provided a big wide terminal housing with lots of terminals designed to connect your cables to for your power supply, pumps and sensors. Not just a pretty face beautiful inside too.

### We Are Exhibiting Again this time at :- The IWEX Exhibition 22th, 23th & 24th of May 2012 At The National Exhibition Centre (NEC) Birmingham.

We are pleased to announce Automated Water & Effluent Limited will be exhibiting at the IWEX exhibition at the NEC on Tuesday, Wednesday and Thursday 22th 23 th and 24 of May 2012

If you need tickets please contact Mrs. Vera Young by telephone 01785 254597.  
or e-mail [vyoung@awe-ltd.co.uk](mailto:vyoung@awe-ltd.co.uk).

New on the stand will be the MO5-CT-CDRH microprocessor cooling water controllers

Motor driven dosing pump with a wide range of wetted parts including stainless steel, PVDF, PVC and Polypropylene to cover most dosing applications.

Will will also be showing our 7600 range of instruments for pH, Redox, conductivity, dissolved Oxygen and residual Chorine along with the BC7635/7335 slave controllers.

To compliment our instruments we will also be showing items from our wide range of pH and Redox sensors for submersion into open tanks, and

immersion into vessels and pipes, off line flow cells and auto clean electrodes, conductivity cells, dissolved oxygen electrodes and turbidity sensors.

There will be a selection of our red dosing pumps (RDP) with accessories to make a complete package including dosing quills, pressure relief valves, suction lances and flow sensors.

We are able to build simple dosing and control systems and back up our products with on site commissioning and routine service contracts.

# Technical Tips

## Level Electrodes

Following on from our technical tip in the autumn issue about level controls, in this issue we cover level electrodes. There are many types of level electrodes some are general purpose and others are specific for the application. The simplest and most common applications are the filling or emptying of water tanks with cold clean water.

For these applications we manufacture our LE20 electrode holder which has three 316 stainless steel electrodes 900 mm long each with a colour coded PVC sheath. The secret is in the PVC sheath which stops tracking between the electrodes as the resistance path is

between the bottom of one electrode up to the mounting boss and down the other electrode to the stainless steel tip. Electrodes which have no insulation have a short track path either between the electrodes which can be just a few millimeters so easily bridged by scale or solids which form on the electrodes.

The second problem area is on the mounting boss as condensation or moisture easily forms here and will cause erroneous operation of the level controller. So our experience is to avoid level electrode systems with un insulated multiple electrodes.

Our LE20 has a 3/4" BSP male mounting thread and a plug on connector for easy removal of the electrode for inspection and maintenance. The LE20 is suitable for use in water and mild acid or alkali solutions which stainless steel is resistant to.

For level control in sumps and pits where there can be solids, sludge or rags etc single level electrodes are best with some space between them to help prevent bridging between the electrodes.

For these applications we have the LE7 single electrode holder which is designed to hold one single stainless steel electrode of 1/4" Ø. For EVA coated electrodes the LE7 electrode holder needs to be drilled out to accept the larger diameter of the EVA coated electrode.

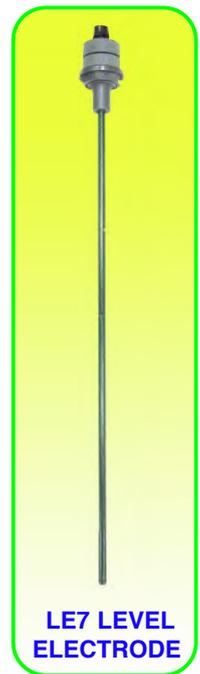
We recommend spacing the LE7 electrodes holders 100 to 250 mm apart, for concrete or brick built sumps or pits we are able to supply a mounting bracket in polypropylene which is corrosion resistant to screw to the wall to hold the LE7 electrode holders.

When installing our EVA coated stainless steel electrodes we recommend that on the sensing end of the electrode the EVA coating is stripped back about 1" (25 mm) to expose the stainless steel which should be all bright and shiny I.E. nice and clean.

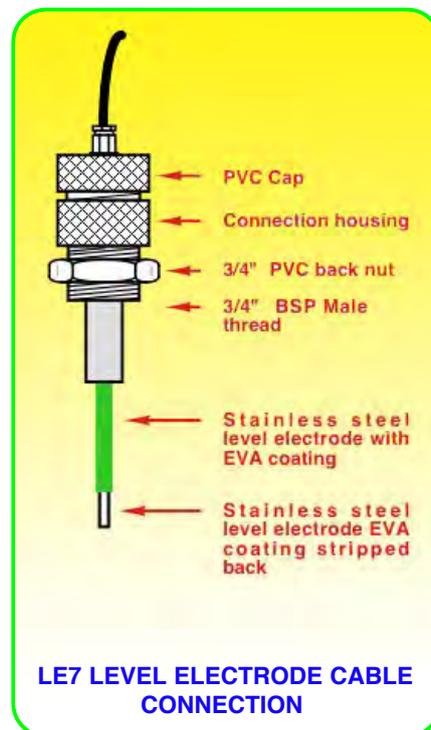
The hole in the centre of the LE7 should be opened out to allow the EVA coated electrode to pass through the PVC holder as a tight fit, the EVA coating on the top of the electrode should be stripped back approx 5/16" (10mm) so the brass connector makes good electrical contact with the clean stainless steel. The EVA must pass through into the PVC holder so the insulation is not compromised for each electrode. For solutions where stainless steel can not be used we are able to supply titanium or hastelloy electrodes. We also offer other technologies such as float switches, ultrasonic, hydrostatic, capacitance and radar level instruments.



LE20 LEVEL ELECTRODE



LE7 LEVEL ELECTRODE



LE7 LEVEL ELECTRODE CABLE CONNECTION



LE7 LEVEL ELECTRODE WALL MOUNTING BRACKET

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