

# The Watermark

The Newsletter From

**Automated Water & Effluent Ltd**

Winter 2016/17

## New pH/Redox Transmitter.



As regular readers will know we are big fans of 2-wire transmitters; for their ease of installation, local calibration (where calibration is required) and the ability to mount the transmitter up to 1000 metres away from the receiving instrument.

The model P3436 is the latest new addition to our range of instruments. It is a microprocessor based two-wire pH / Redox Transmitter, with measuring ranges of 0 to 14.00pH, 0 to

$\pm 1000\text{mV}$ ,  $-1000\text{mV}$  to  $+1000\text{mV}$ , or 0 to  $+2000\text{mV}$  which are user-selectable and correspond to a 4-20mA isolated output. The P3436 is supplied either for din-rail mounting or in an IP65 w'proof housing for outside mounting.

The P3436 can be configured to work with a glass electrode, antimony electrode, or a redox millivolt electrode input. The temperature input provides automatic temperature compensation for a glass pH electrode and a solution

temperature output.

The P3436 is also designed to work with our BC7635, which is a panel mounting controller which also powers the P3436 (or any other 2 - wire transmitter). The same two wires that power the transmitter and send the return signal when using our cable type LMK2.

The P3436 can be mounted up to 1000m away from the BC7635 with no loss of signal. The calibration or buffering of the electrode is carried out by the P3436 which should be mounted close to the pH or Redox sensor, ideally within 3 metres of the sensor, so that pH extension cables are not required.

With the instrument powered, simply plug in the electrode and you're ready to buffer the electrode. There is no need to go back to a workshop for special calibrators, no need to connect a PC, and no special expensive electrodes or proprietary connectors. Our instruments use standard electrodes fitted with an industry standard BNC connector, which are cost effective and simple to use without compromising on accuracy and precision.

## WWEM Exhibition

At The Telford International Centre

We would like to thank all the visitors who stopped by our stand at the recent Water, Wastewater and Environmental monitoring exhibition (WWEM) at the Telford International Centre in Telford Shropshire.

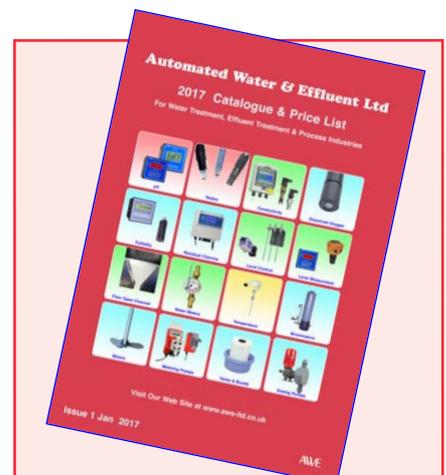
The WWEM exhibition focused on measurement, testing, and analysis for the water, wastewater, and environmental industry.

It was nice to see everyone and we made some new contacts and caught up with some old friends too.

If you need any additional information after the exhibition, please contact Tom



Young our business development manager by calling 01785 254 597 or emailing [sales@awe-ltd.co.uk](mailto:sales@awe-ltd.co.uk).



If you haven't already had a copy of our new catalogue, or would like a colleague to receive one, then please contact the sales office by telephone **01785 254597**. or e-mail [sales@awe-ltd.co.uk](mailto:sales@awe-ltd.co.uk).

# Technical Tips

## Process Control Systems

We supply a large range of products to many different industries both domestically and internationally, which after 35 years of being in the process control business means we have learnt something about many different industrial processes.

We also supply equipment and systems for the water and wastewater treatment systems ranging from applications such as swimming pools, water features, Cooling Towers, Boiler water control, Dosing control, For Ultra-pure water monitoring we have supplied monitoring for the semi-conductor industry, and monitoring and control equipment for the power generation sector, we've also supplied various applications in the following industries:- Textiles, Paper and Pulp, Dairy, Food, Beverage and Brewing, Pharmaceutical, and Fine Chemical manufacturing. Some instruments and dosing control equipment has been supplied for installation in hazardous areas certified for use in ATEX areas. to

mention just a few of the industry areas where we have helped our customers with problems. Its always nice to be involved in a customers project which covers both the process control and the effluent / waste water treatment.

We recently designed and built a control panel for a regular customer which controlled the heating of process tanks containing aggressive chemicals - where stainless steel sensors would not have been suitable.

As we have a lot of experience in controlling heated process tanks, so this was simple to solve for our customer. The process involved a large number of rinse water tanks which were all controlled by our conductivity controllers.

Our customer requested that the controllers be panel mounted as opposed to surface or locally mounted, so that all the values of all the tanks could easily be seen in one place. The conductivity controllers all controlled solenoid valves to add fresh water to

various tanks. With the tanks all being used for different parts of the process, some of the vessels were having towns water added, others were using demin-water and a number of tanks having heated water added to the tanks, so that the work flash dried when removed from the final rinse tank.

All the heated tanks had liquid level controls to add liquid to keep the tank topped up to the working level. In addition to the level controllers adding liquid, secondary level controllers were also installed to protect the heaters in the event of a low level in the tank.

As we have our own range of level controllers and level electrodes with materials to suit a wide range of chemical reagents, an application like this was no problem at all for us.

Space on the site was tight, so a very simple batching control system was designed for the pH control of the rinse water discharge.

We were able to supply all the components to build the Wastewater treatment system including pH control, geared mixer, liquid level controls and a proportional control caustic dosing pump.

At some point the customer will need to add a discharge to drain flow meter and discharge pH meter with a data logger / paperless recorder - such as our Online Data Logger which will send the data from the panel to our secure server, which the customer can then view from his browser. The Online Data logger will be available to all customers shortly - and we'll be looking at this in more detail in our Spring / Summer issues of The Watermark.

When installed we completed our on-site commissioning and supplied traceable calibration certificates for all of the instruments we supply. Remember - you heard it on the AWE Grapevine.



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