Valmet Conductivity Measurements

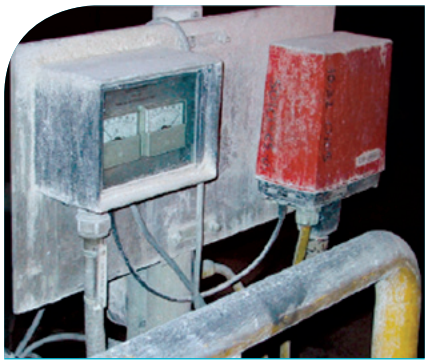
In-line measurements for demanding applications

Designed for the industry

History

From its former headquarter and production site in Denmark, Copenhagen, more than 50,000 high quality conductivity units (formerly Kemotron) have been delivered during the past 50 years. Production has been moved to brand new production facilities in Kajaani Finland.

4-electrode technology eliminates scaling problems, and our robust sensors, which can survive in extreme environments, are interchangeable.



Rugged Design

Due to the rugged design, Valmet Conductivity Measurement units typically last >10 years – even in harsh applications/environments and still measuring with the highest precision. Valmet Conductivity's design, has the cable fixed to the sensor, which will eliminate corrosion problems, and it will avoid errors in the results.

It's all about the sensor

All our sensors are based on 4-electrode principle according to which the current and the voltage are measured across separate parts of electrodes. That eliminates the errors from the polarization effect which is a general problem at high conductivities.

The value of the cell constant is stored in the sensor. This makes all sensors interchangeable without sacrificing accuracy and without the need for recalibration or reentering the cell-constant when exchanging the sensor. Valmet Conductivity sensors are equipped with temperature compensation.

A large selection of sensor types are available, to meet the needs for almost any application.

When high performance is needed

- Excellent and unique sensor technology
- Designed for industrial environments
- Wide selection of mounting accessories
- Customization – specialized sensor for special demand
- Good combination of several technologies and theories
- Know-how of numerous chemical solutions and applications
- In-line measurement = real time process information
- Temperature measurement and compensation
- High accuracy
- Minimum maintenance
- No moving parts
- Automatic scaling compensation due to 4-electrode principle
- Durable sensors – corrosion resistant
- Special sensors for small pipe dimensions
- Long life span – expected 10 years plus, even in tough conditions

Applications and industries

Conductivity

The products have a proven track record of mastering conductivity measurements in demanding applications and standards such as:

- Conductivity control in heavy industries like pulp mills, power, sugar and chemical plants.
- Control of ultralow conductivity in pharmaceutical plants.
- Conductivity control in food processing plants for CIP control

Concentration

The measurements are for strong and corrosive acid controls in chemical, metal purification, electronic circuits and fertilizer plants. The concentration measurement directly shows the actual concentration (g/l or %), which is available in DCS display.

Cooking

The in-line alkali measurement is constructed for direct installation into the digester liquor circulation lines to provide continuous EA/AA measurements. The design and finish of the sensors take into account the harsh process conditions, and provide long term operation and stability with minimal deposits impact on results.

Causticizing

The causticizing measurement is designed especially for use in the causticizing process, and features a rugged design, and an auto clean function. This continuous and reliable in-line measurement is designed for optimization of the causticizing process, while keeping the maintenance to a minimum.

Application consulting "...let us help you with your demanding applications..."

With more than 50 years of experience dealing with measurements based on the conductivity principle, we have met all kinds of applications in many different industries.

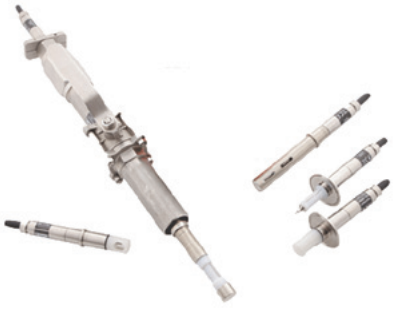
Contact your local Valmet Automation expert, to find out which possibilities are available, to help you with your application.

Valmet Condutivity Measurements

Typical content of delivery:

- Sensor unit
- TCU unit
- CD with operating manual
- Quick guide for installation

Monitoring your results



Valmet Conductivity TCU

The series 3000 is a microprocessor-based transmitter for conductivity, concentration, cooking, and caustici-zing measurements.

The TCU is designed for wall, panel, or pipe mounting in industrial environments, and it has two mA outputs, a display and a keypad.

Four individual set-up modes are available, each with a complete recipe and individual setting of output range, alarm, and calibration. The set-up mode can be selected remotely or from the keypad.

Portable unit for conductivity and concentration measurements

The new generation

- New keyboard and design
- Up to 5 times faster sampling rate
- Increased precision for the entire range
- Fast and reliable reading of quick changes in conductivity
- Status OK (or alarm) indicator – a quick overview
- New intuitive menu – easier for set-up and programming
- Backlight blinking – indicating alarm status (only for line-powered versions)

Valmet Conductivity series 3100, 3200, 3300, 3400 & 3500 are supplied with HART® communication.

Valmet's professionals around the world work close to our customers and are committed to moving your performance forward – every day.

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Twitter.com/valmetglobal

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www.valmet.com

For more information, contact your local Valmet office. www.valmet.com

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