Technical Information:

Date: July 23rd 2004
Subject: Chlorine Sensor Slope Values
Product: CLE / CTE mA, DMT, 4P,
Category: Chlorine Sensors
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With each of our chlorine sensors, there are a range of signal strengths that are produced in relation to a PPM chlorine concentration with each measuring range. The signal produced by the sensor is a current (hence the name Amperometric sensor). This signal then can be processed in a number of different ways.

For D1C / D2C

The signal is transmitted to the Instrument as a mA signal. In each case we have a stable zero point of 4.00 mA and for each measurement range we have a default slope value. The calibration will allow a range of slope values of 25% to 300 % of this default value before giving a slope too low or slope too high error.

Chlorine Sensor	Range	Default Slope Value
CTE 1 mA	0.50 PPM	24.0 mA / PPM
CTE 1 mA	2.00 PPM	6.0 mA / PPM
CTE 1 mA	5.00 PPM	2.40 mA / PPM
CTE 1 mA	10 .0 PPM	1.20 mA / PPM
CLE 3.1 mA	0.50 PPM	24.0 mA / PPM
CLE 3.1 mA	2.00 PPM	6.0 mA / PPM
CLE 3.1 mA	5.00 PPM	2.40 mA / PPM
CLE 3.1 mA	10.0 PPM	1.20 mA / PPM
CLE 3 mA	0.50. PPM	24.0 mA / PPM
CLE 3 mA	2.00 PPM	6.0 mA / PPM
CLE 3 mA	10.0 PPM	1.20 mA / PPM
CLE 3 mA	20.0 PPM	0.60 mA / PPM
CLE 3 mA	50 .0 PPM	0.24 mA / PPM
CLE 3 mA	100 PPM	0.12 mA / PPM

For DMT

The DMT is a loop powered transmitter which generates a 4 – 20 mA signal on the same 2 wires as the supplied DC power, it controls the current in this loop based on the measured chlorine value. A mV signal is generated from the chlorine sensor to the DMT which is then processed in the DMT.
Unlike other chlorine sensors, the temperature correction is done in the DMT, not in the chlorine sensor.

Sensor	Default Slope Value
CTE 2 DMT 10.0 PPM	32.5 mV / PPM
CLE 3 DMT 5.00 PPM	65 mV / PPM
CLE 3 DMT 50 .0 PPM	6.5 mV / PPM

For WS Controllers and D4a Pumps

Here a 4 wire cable is used to connect the sensor to the device, 2 wires (White & Brown) carry a power supply to the sensor (+/- 7.5 VDC) and the other 2 wires (Green & Yellow) carry the signal relative to the measured chlorine value.

CLE 2.2 4P	100 mV / PPM

PAA Sensors New Style

These new style PAA sensors don't require the external reference electrode or temperature measurement.

Measuring Range	200 PPM	60µA / PPM
Measuring Range	2000 PPM	6.0µA / PPM

Hydrogen Peroxide Sensors

The measurement range on these sensors is selected by DIP Switches on the transducer.

Measuring Range	20 PPM	- 400µA / PPM
Measuring Range	200 PPM	- 40µA / PPM
Measuring Range	2000 PPM	- 4µ A / PPM

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