Technical Information:

Date:October 2006Subject:CTE Sensor and TemperatureTopic :Total Chlorine Measurement at Low
Temperatures

The Total Chlorine (CTE) range of sensors have a published operating temperature range of 5° C to 45° C. In some colder climates it is normal in the winter for the water temperature to go below 5° C. With regards to the sensor working in the range of 0° C to 5° C, it is not a problem.

In the range of 0° to 5° C the response time of the sensor is only slightly longer than with temperatures in the 5° to 45° C range. The T₉₀ time is only slightly increased. As long as the water is not frozen, the sensor will measure fine. This is normal with electrochemical reactions, they usually slow down with temperature.

The rate of change of temperature should be no greater than 0.3° C per minute in order for the sensors internal temperature measurement / compensation to keep up with the change.

In most cases the actual chlorine value being measured does not continuously change as residual is being maintained.

Experience of the last 12+ years have proved lower temperatures not to be a problem for the Total Chlorine sensor.

