

METTLER TOLEDO APPLICATION NOTE

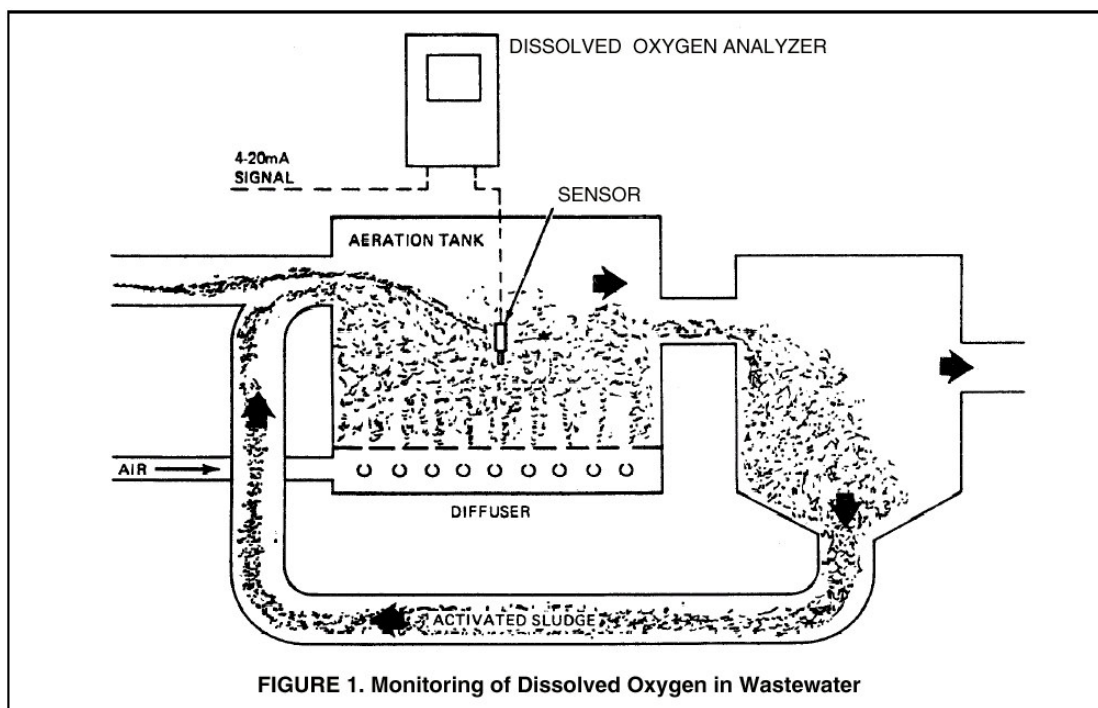
Monitoring Of Dissolved Oxygen In Wastewater

BACKGROUND

Dissolved oxygen in wastewater aeration tanks needs to be reliably and accurately controlled to optimize the bacterial activity and reduce energy consumption of the aeration equipment. The typical range of operation is between 0.5 and 2.0 ppm or higher. For pure oxygen processes in covered and sealed tanks, the dissolved oxygen range may be 12 to 15 ppm.

INSTRUMENTATION

Continuous and precise measurement of dissolved oxygen is cost effective. It allows for minimized operating cost for expensive equipment. In addition, it eliminates the need for frequent sampling for laboratory testing. (Figure 1 shows the monitoring of dissolved oxygen in wastewater.) The Model 4050 Dissolved Oxygen Analyzer in conjunction with the InPro® 6050 and InDip® housing are designed for continuous measurement of dissolved oxygen.



PRODUCTS

4050 Dissolved Oxygen Analyzer

- Economically priced, full featured transmitter
- Large, easy-to-read LCD allows quick view of information
- Two relays as limit contacts with delay timer to minimize false alarms and one relay as alarm or wash contact

InPro® 6050 Dissolved Oxygen Sensor

- Rugged, plastic sensor design for long life and low maintenance
- Integrated RTD for automatic temperature compensation
- Unique Teflon® coated membrane prevents fouling
- IP66, IP67 and IP68 rated VarioPin connector for quick cable disconnect

InDip® 500 Series Immersion Housings

- Economic method of sensor installation in open tanks and vessels
- Rugged protective cage protects the sensor against abrasive solids in the process medium