



## RTC-N/DN Software Module

Product #:

LXZ520

### **OBSOLETE ITEM**

This item is no longer available.

### Are your aerated/non-aerated intervals balanced for maximum $\text{NH}_4\text{-N}$ and TN benefit?

For intermittently operated plants and those with sequencing batch reactors (SBR), fixed periods for nitrification and denitrification can't adequately address varying inflow conditions. Making assumptions about the ammonia or nitrate load in your mixed liquor can lead to overuse of blowers, inconsistent sludge, and TN compliance violations.

Instead, try load-dependent control of your aerobic and anoxic cycles. Hach's RTC-N/DN and RTC-N/DNSBR Software use real-time measurements of  $\text{NH}_4\text{-N}$  and  $\text{NO}_3\text{-N}$  levels in the treatment basin to ensure the correct level of DO is introduced during the nitrification stage. This prevents nitrate-exhaustion-causing orthophosphate release, or untreated nitrate spiking total nitrogen, during the denitrification stage. In addition, real-time control on  $\text{NH}_4\text{-N}$ ,  $\text{NO}_3\text{-N}$  and DO creates transparency, ensures compliance and increases process efficiency. Despite being standardized solutions, RTC-N/DN and RTC-N/DNSBR have treatment flexibility built in, allowing you to prioritize ammonium or total nitrogen limits, to activate an orthophosphate feedback control loop, to install an additional DO controller, and to specify your desired fallback strategy that will protect compliance in the event that input signals become unavailable.

Claros Process Management **solutions for nitrification/denitrification** like RTC-N/DN and RTC-N/DNSBR (tailored to the specific needs of plants with sequencing batch reactors) are designed to make the most of your plant's real-world conditions by transforming every uncertainty into an opportunity for measurement, responsive action, and savings.

#### **Compliance at lower N levels**

RTC-N/DN and RTC-N/DNSBR are customizable solutions that upgrade the performance capabilities of your existing treatment basins or batch reactors.

#### **Typical energy savings of up to 30%**

Blowers only turn on when required, taking advantage of maximum "nitrate harvesting."

#### **Overall process health improvements**

Gain additional phosphorus compliance protection and maximum alkalinity recovery without additional chemicals, while also avoiding off-gassing of nitrogen in final tanks or SBR generating solids loss.

#### **Increased treatment capacity**

Mixed liquor moves to the next treatment phase as soon as it's ready, rather than waiting to meet a fixed timeframe or reductive condition.

#### **Better sludge**

Settlement characteristics improve by avoiding high aeration rates in the absence of  $\text{NH}_4\text{-N/COD}$ .

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## Specifications

Application: Denitrification, intermittent

Industry: Wastewater

Input Parameter:	NH <sub>4</sub> -N, NO <sub>3</sub> -N, Q <sub>In</sub>
Model:	RTC-N/DN
Number of channels:	1 or 2
Output:	Nitrification/denitrification signal
Parameter:	Ammonium, Nitrate, TSS, DO
Process:	Aeration process - Nitrification/denitrification Control
Prognosys:	Yes
Solution Type:	Software