

# Isolated Serial Converter for Waste Water Reliability



**Industry: Water & Waste Water Treatment**

**Product: Optically Isolated RS-232 to 485 Converter**

## • The Challenge

A wastewater treatment plant had a big problem. Rogue currents and ground loops were wreaking havoc with the RS-485 network used to control and monitor the plant. Intermittent data errors interfered with communications between the control system and the remote sensors. It was dangerous, it was messy, and – thanks to troubleshooting, overtime and EPA fines – it was expensive.

## • The Solution

B&B discovered that the control network required complete isolation from the rest of the system. Communication ports needed to be isolated from one another and from the power input to prevent current and ground loops. B&B's triple-isolated Ilinx™ converters were installed wherever there was a risk for stray currents. The end results included improved productivity, reduced downtime, reduced maintenance and overtime, and the elimination or reduction of EPA fines.



## • Why B&B Electronics?

- Three way isolation provides the most robust protection from ground loops and stray currents that's available and a great fit for the challenges of a water treatment plant.
- The wide temperature range of the 485OPDRi stands up to the demanding water treatment environment.

## • The Product

**Ilinx™ Model 485OPDRi** – Optically Isolated RS-232 to 485 Converter

- 2000 V, 3-way isolation on input/output/power
- Wide temperature range (-40 to 85°C)
- CE, cUL Class1 Div2



**LINX™**  
Model 485OPDRi

