

# Intelligent Control Automation with Serial Conversion on the Plant Floor

**Industry: Industrial Automation and Manufacturing**  
**Product: Optically Isolated Converter**

## • The Challenge

A baked goods contract manufacturer used a constant speed conveyor system to produce numerous products in varying pan sizes. Sensors along the conveyor detected pan size and reported the data to a PLC that controlled the line speed. The PLC would then adjust the line speed to control the bake time. But glitches in the RS-485 serial communications were causing under or over baking.

The company needed a quick and economical way to improve quality control. But the conveyer system was nowhere near its end-of-life and it represented a huge capital investment. Replacement was out of the question.

## • The Solution

B&B solved the problem with optically isolated RS-422/485 repeaters. The repeaters eliminated the communication glitches and the production line began to respond to pan changes with speed and accuracy. The system's original design hadn't actually been all that bad; it just needed the B&B touch.

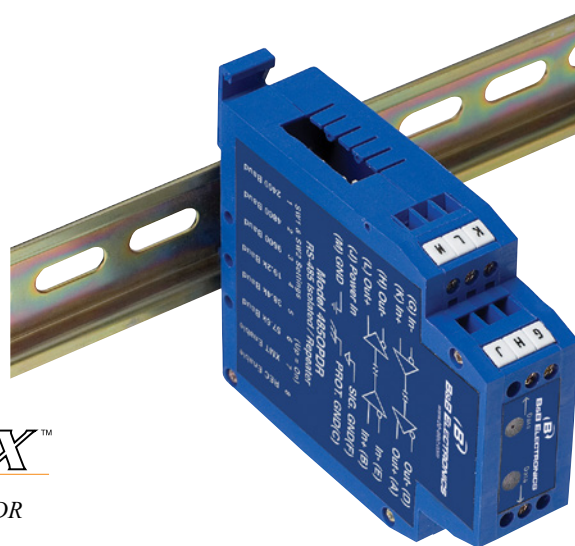
## • Why B&B Electronics?

Our free in-house tech support team assisted the plant maintenance team in identifying the cause of the problem and finding the best product to solve it. The customer dramatically improved the efficiency of the production line and significantly reduced the volume of product waste.

## • The Product

**Ilinx™ Model 485OPDR** – Optically Isolated Converter

- 10-30 VDC operation
- 2000 V, optical isolation on data lines
- Wide temperature range (-40 to 80°C)
- Modbus compatible



**ILINX™**  
Model 485OPDR