

Wireless Monitoring of Grain Elevators and Conveyors



Industry: Manufacturing & Automation
Product: Zlinx® Radio Modems

• The Challenge

4B Components of Morton, IL, is a global supplier of material handling and electronic components for grain storage systems. The company provides a microprocessor-based hazard monitoring system that checks the health of elevator buckets and conveyors and provides status information such as belt speed and alignment, bearing temperature, pulley alignment and blockage detection. Status information is made available through a 4-wire, RS-485 serial port.

One of their clients needed to connect the RS-485 port to a system monitoring and maintenance computer in a main office hundreds of yards away. Cabling would have called for digging, trenching, and conduit work. 4B Components turned to B&B for a solution.

• The Solution

B&B's solved the problem with a pair of powerful, 900 MHz Zlinx® Serial Radio Modems. One was installed at the controller and the other at the main office. Long range radios were needed because large metal grain bins prevented direct line of sight, and extreme Illinois winter weather conditions could be expected to cause signal interference or loss. B&B's long range radios overcame the obstacles and established a reliable connection between the monitor controller and the main computer.

• Why B&B Electronics?

B&B Electronics are leaders in industrial wireless data communications equipment. Technical support is always free, and our engineering staff worked with 4B Components' field team to select the right products for the application. The easy, plug-and-play set-up made the installation trouble free. The Zlinx® family of products is an outstanding choice for companies who need rugged, reliable equipment for wire replacement.

• The Product

Model ZP9D-115RM-LR – Zlinx® Radio Modem

- Class 1 Div 2 certification
- Point-to-Point/Point-to-Multi Point Serial and I/O connectivity
- Modbus compatible
- High performance – low latency response rates
- RS-232, 422, 485 serial communications
- Radios are license free – no annual costs or approvals needed
- Dual AC and DC power supply enhances network reliability
- Rugged circuitry and wide temperature ratings make Zlinx suitable for harsh indoor and outdoor installations
- Free, easy to use Zlinx® Manager software helps with advanced set-up



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