

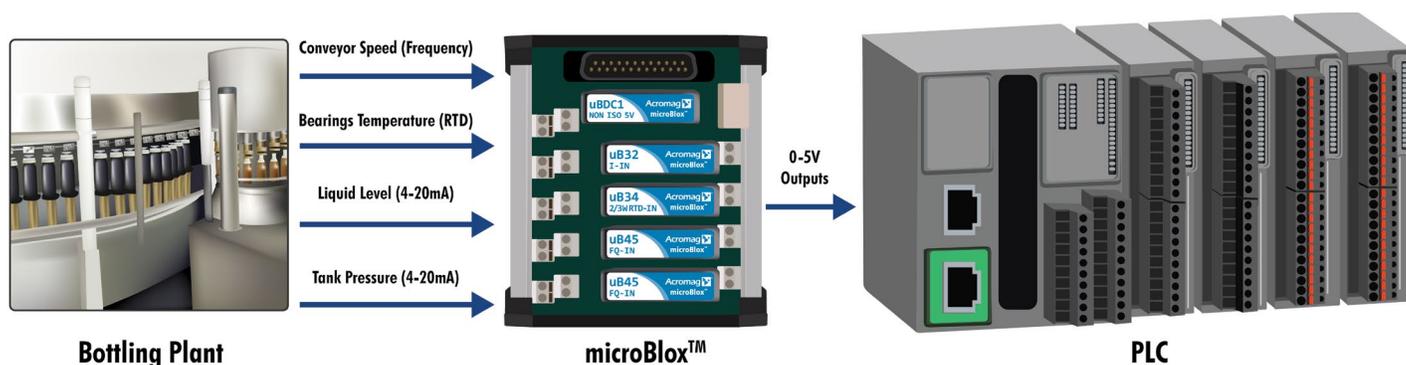
Application Note: Reduce PLC Costs with Signal Conditioners

Defining the Problem:

A small scale bottling operation will be controlled by PLCs. Multiple sensors including conveyor speed (frequency), bearings temperature (RTD), liquid level (4–20mA) and tank pressure (4–20mA) will connect to the PLCs. An affordable solution to convert these various signals to one common signal type will allow procurement of one type of PLC input card instead of multiple cards for many different signals. Also, inserting low cost front-end devices will add extra protection against transients for the higher cost PLC hardware.

System Requirements:

[MicroBlox™](#) are available in 4, 8 or 16 channel boards and include a wide variety of inputs for voltage, current, thermocouple, RTD, frequency and high-speed operation. Each input type has many fixed ranges to select from, no programming or configuration is necessary. These can be mounted on a DIN-rail or backpanel.



Implementing the Solution:

1. Select the microBlox fixed range model for each type of input. All models should have the same output, for example 0 to 5V.
2. Apply either 24V or 5V DC power to the back panel. MicroBlox modules are hot swappable and can be inserted or removed with power applied.
3. Follow the proper wiring practices as detailed in the user manual.
4. Validate the I/O before connection to the PLC input card.

Featured Products:

[microBlox](#), [uB45](#), [uB34](#) and [uB32](#)

Notes:

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Why Acromag:

The microBlox is a low cost, high performance series with easy set up and installation. It can be mounted in a wide variety of applications from general purpose to hazardous locations.