

Improved Batch Operations with Load Cells

Application: Process Weighing

Industry Sector(s): Pharmaceutical

The Customer

The customer is a major multinational company developing vaccines. The company has found that vaccine formulation using single-use, disposable technology in the form of plastic IV type bags can provide significant cost and time savings.

Customer Inquiry

The customer selected KIS-3 weigh modules for their accuracy and ability to withstand lateral side loads caused by the pulling action of the tubing connecting the bags to the process and bracketing assembly, and the spike pulses associated with peristaltic pumps. The movable load point on the KIS-3 module compensated for the shifting of the bag caused by changes in the bag's profile and the rocking assembly used for mixing after weighing without affecting accuracy.



Figure 1: Batching with G4 and KIS-3 load cells

Solutions and Equipment

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The G4 Multi Scale Transmitter was used in high-speed mode (800 updates/second) to display the individual weights of the five load cell stations and transmit weigh data to the controlling PLC.

Customer Comments

Overcoming the dispensing and weighing accuracy challenges were critical to the success of the project. Fast settling times contributed significantly to operator acceptance.

"Not only was the 0.02% accuracy target achieved, but the system consistently achieved sub 0.01% in acceptance testing"

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