



## PRECISION DIGITAL CONSOLIDATORS AND SIEMENS RADAR IMPROVE FEEDMILL SILO MONITORING

### BACKGROUND

Process Instrument Solutions recently supplied and installed a Precision Digital Consolidator multi-channel indicator system at a major animal feedmill. Working with Siemens SITRANS LR120 and LR110 non-contact 80 GHz radar sensors, fitted with EasyAimers, the project provided the customer with a modern and reliable method for monitoring silo levels and managing product deliveries.



### CHALLENGE

The feedmill required a system that could provide clear, real-time silo level information while also offering reliable alarms to prevent overfilling during bulk deliveries. Alongside local operator displays, the customer needed seamless integration with the site's SCADA system, plus flexibility in setup, configuration, and data management. Safety compliance was also a factor, with ATEX-certified equipment required for the dust hazardous areas around the silos.

### SOLUTION

The installed system uses Siemens SITRANS LR120 radars, which are ATEX-certified for Zone 21/22 dust environments, and SITRANS LR110 radars, all mounted with EasyAimers for optimal alignment. These radars provide continuous, accurate non-contact level measurement, feeding data to the Precision Digital Consolidators mounted in the safe area.



The Consolidators present silo levels in multiple formats, including a bargraph and tonnage display for quick operator reference. Relay outputs from the Consolidators provide overflow alarms, triggering both a site warning klaxon and flashing lamp. Data is also transmitted to the plant's SCADA system via the built-in Ethernet communications port, ensuring plant-wide visibility.

The system offers further flexibility with 4–20 mA outputs, HART communication, and Bluetooth connectivity for easy setup and monitoring. Consolidator configuration can be carried out either from the instrument keypad or via PC software, which is particularly useful for saving setup files and applying “copy/paste” functionality across multiple units.





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**RESULT**

The installation has provided the feedmill with a comprehensive and reliable silo monitoring solution. Operators now benefit from clear, local displays, robust alarm protection, and seamless integration with SCADA for centralised control. The combination of Siemens radar technology and Precision Digital instrumentation has enhanced safety, efficiency, and usability, ensuring the site is well equipped to manage storage and deliveries with confidence.

**EQUIPMENT SUPPLIED**

**Siemens SITRANS LR120 Radar Transmitter**

Siemens SITRANS LR120 is a compact radar transmitter for continuous level measurement of liquids and solids to a range of 30 m (98.4 ft).

**Precision Digital PD9000 ConsoliDator+**

The ConsoliDator+ is a multi-channel controller that is both easy to use and satisfies a wide variety of process display, alarm and control applications.



**Jon Taylor**  
Managing Director

