

## Solutions for Primaries

Ultrasonic technology has been used extensively in the primaries industry, on applications such as sand, gravel, quarries, cement, ready-mixed, lime, coal, animal feed, aggregates and plastic pellets.

These industries present some challenging level measurement applications for ultrasonic: high temperatures, dusty environment and uneven surfaces. During a process, the products generate noise, dust and air movement, which can result loss of the signal.

In order to overcome these obstacles, the sensor should be highly sensitive to low echoes and should include a built-in temperature sensor in order to compensate for temperature variations.

The 25 KHz Sensors (used with SmartScan 25) can successfully cope with these demanding applications. They offer low loss of energy, can reach long distances, have high sensitivity to echoes and don't result in acoustic problems (frequencies lower than 20Khz may create acoustic problems, since these frequencies are within hearing range.)



# Product Suitability

SmartScan 25 is a family of ultrasonic continuous level measurement instruments that directly address the most pressing challenges in the field. Due to Solid's patented technology, SmartScan 25 can cope with the most difficult environments.



SmartScan 25 Integrates the following modules:

Dynamic and static echo control features an innovative algorithm enabling automatic (dynamic) identification, learning and storage in memory of disturbances and noises without human intervention. Temperature control rapidly compensates for changes in temperature and corrects the reading accordingly. Gain control's special algorithm enables full monitoring of the signal amplification received from the sensor, and ensures an accurate and reliable reading even in the presence of gases or vapors.

Advantages:

Installation in high process tanks, large storage vessels, and extended range applications.  
Self-adjustment to virtually all types of conditions  
Full compensation in virtually all environments: vapors, gases and temperature variations.  
Providing highest accuracy under harsh conditions.  
0.25% accuracy of measured range.  
For ranges of up to 40 meters (131 ft).  
Resolution: 1 mm (0.04 inch).  
Variety of sensors for each application.  
No calibration or maintenance required.  
Accurate average calculations of uneven surfaces, for solids and aggregates.



Benefits:

5 SPDT relays (independent On/Off programming).  
Interface: 4-20mA, RS232, RS485.  
Calculates volume and Kg.  
Single sensor or multi sensor versions.  
Light equipment, Simple to install and easy to handle.



Solutions for the primaries industry:

SmartScan 25 S Standard: 0.25% accuracy at 0.6-20m (2-66 ft)  
SmartScan 25 S Mid range: 0.25% accuracy at 0.6-30m (2-98 ft)  
SmartScan 25 S Long range: 0.25% accuracy at 0.6-40m (2-131 ft)

