Silo level measurement

Industries: Logistics / Process
Application type: Level measurement / Monitoring

Description

Industries such as plastic molding, food processing, and construction materials all rely on bulk materials. As these industries move even closer to just-in-time manufacturing, the ability to produce accurate, reliable, and repeatable level measurements is becoming increasingly important. This means that high inventories of raw materials should be avoided if possible. Dimetix Laser Distance Sensors help you to determine the exact level of your silos at any time, allowing you to optimize your raw material stock.

Fig 1: Silos

Dimetix sensors measure accurately at longer distances (≥65meters) on a wide variety of materials, without making contact with the materials being measured. Reliability and repeatability of laser measurements are also independent of color and material. Surfaces consisting of white plastic pellets are measured as accurately as those composed of dry or wet gravel. Even in the case of semi-transparent plastic resin pellets, enough light is reflected back to the sensor to obtain accurate and reliable measurements.

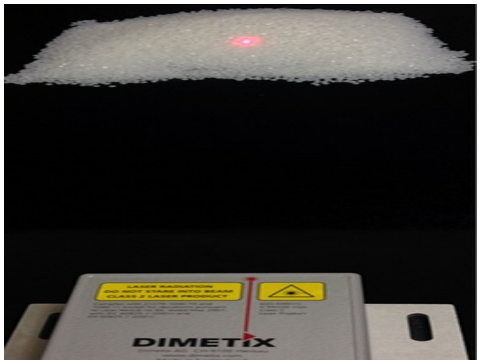

Fig 2: Dimetix Laser Sensor measures on white plastic pellets

Customer advantage

- Easy installation thanks to visible laser beam
- Easy configuration thanks to the free software
- Operation in the largest temperature range (-40°C to +60°C) possible
- Measuring ranges up to 100 m on natural surfaces
- Measuring ranges up to 500 m on reflective foil
- Accuracy ± 1mm
- Repeatability ± 0.3 mm
- Measurements can be acquired by a PLC or PC
- Maintenance-free operation

Dimetix Sensors – the solution for applications with high precision requirements

Thanks to the clearly arranged product portfolio the evaluation of a suitable Dimetix distance laser sensor is simple and uncomplicated.

Dimetix sensors offer numerous features, which are integrated in each and every device as standard, including, among others, various interfaces like SSI, RS-422/485, RS-232 and 2 digital outputs.
Optionally, the Industrial Ethernet interfaces PROFINET, EtherNET/IP and EtherCAT are also available. Furthermore, all devices are IP65-protected and impress with a weight of less than 500 grams!

Particularly noteworthy, however, is the accurate measurement of 1 millimeter over distances of up to 500 meters, even under the most extreme conditions. This is possible with the sensors of the types DPE, DEN and DEH.

No less interesting are sensors of types DAE, DAN and DBN. Preferably, they can be used for projects which do not require a range over 500 meters or are cost-sensitive.

	DPE-10-500	**DPE-30-500**	**DEN-10-500**	**DEH-30-500**
PARTNUMBER	500630	500636	500637	500638
SPECIFICATION				
Typical accuracy ≅ ± 2σ	± 1 mm	± 3 mm	± 1 mm	± 3 mm
Mensurierung range on natural surfaces	0.05…~100 m	0.05…~100 m	0.05…~100 m	0.05…~100 m
Measuring range on reflective foil	~0.5…500 m	~0.5…500 m	~0.5…500 m	~0.5…500 m
Max. measuring rate	250 Hz	250 Hz	50 Hz	50 Hz
Operating temperature	-40…+60°C	-40…+60°C	-10…+50°C	-10… +60°C

	DAE-10-050	**DAN-10-150**	**DAN-30-150**	**DBN-50-050**
PARTNUMBER	500633	500632	500634	500635
SPECIFICATION				
Typical accuracy ≅ ± 2σ	± 1 mm	± 1 mm	± 3 mm	± 5 mm
Mensurierung range on natural surfaces	0.05…~50 m	0.05…~100 m	0.05…~100 m	0.05…~50m
Measuring range on reflective foil	~40…50 m	~40…150 m	~40…150 m	
Max. measuring rate	50 Hz	50 Hz	50 Hz	10 Hz
Operating temperature	-40…+60°C	-10…+50°C	-10…+50°C	-10…+50°C