Bulkscan®

Non-contact and maintenance-free measurement of volume flow

FLOW SENSORS

SICK
Sensor Intelligence.

Bulkscan®
FLOW SENSORS

Technical data overview

Measurement principle	Laser run time technology
Medium	Bulk solids
Output signal	Ethernet Digital inputs and digital outputs USB auxiliary interface RS-232/RS-422
Max. conveyor speed	30 m/s / ≤ 20 m/s (depending on type)

CE

Product description

The Bulkscan® uses non-contact time-of-flight technology to measure the volume flow of bulk materials on conveyor belts. Irrespective of the properties of the bulk material and the weather conditions, the Bulkscan® generates a reliable volume flow signal based on the laser's time of flight and the belt speed thanks to multi-echo technology. Besides recording the total quantity and calculating the mass flow, the Bulkscan® comes with an integrated function for determining the center-of-gravity of the bulk material, thereby enabling it to detect uneven loading and thus avoid excessive belt wear. The rugged industrial housing is ideal for extreme operating conditions. An integrated heater ensures safe operation over a wide range of ambient temperatures. Discrete signals as well as Ethernet TCP/IP can be used to connect the measuring system to a host communication system.

At a glance

- Efficient and cost-effective non-contact measurement of volume and mass flow of bulk materials
- Laser pulses with high angular resolution ensure outstanding image resolution
- Multi-echo pulse evaluation produces highly reliable measurements
- Integrated function for determining the center-of-gravity of the bulk material
- Rugged design for harsh ambient conditions
- Integrated heater allows measurement even at low temperatures
- Compact IP67 rated housing

Your benefits

- Maximizes conveyor throughput
- Reduces maintenance costs by preventing belt slippage when using the Bulkscan® LMS511
- Increases efficiency by optimizing belt capacity
- Simple installation
- Low maintenance costs
- Offers savings through minimized energy consumption
- The wide ambient operating temperature range makes it suitable for outdoor use

Fields of application

- Monitoring the volume flow of raw materials in the food industry
- Monitoring of transport systems for conveying coal or ore
- Loading systems and packaging facilities
- Measuring the ash produced in power stations
- Measuring volume and mass in gravel plants and other operations in the construction industry
- Monitoring the volume of pieces of pneumatic in recycling tires plants
- Measuring the volume and mass of clinker in cement plants

Ordering information

Other models and accessories ➜ www.sick.com/Bulkscan

- **Output signal:** Ethernet, Digital inputs and digital outputs, USB auxiliary interface, RS-232/RS-422
- **Laser class:** 1, eye-safe (IEC 60825-1:2014)
- **Protection class:** III
- **Switching inputs:** 2 (+ Encoder)
- **Enclosure rating:** IP67

Working range	Switching outputs	Supply voltage scanner/heater	Type	Part no.
0.5 m … 10 m	3	10.8 V … 30 V	LMS111-10190	1093274
0.5 m … 20 m	6	19.2 V … 28.8 V	LMS511-20190	1059529

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is "Sensor Intelligence."

WORLDWIDE PRESENCE:

Contacts and other locations –**www.sick.com**

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