HIGHLY PRECISE MEASURED VALUES IN BULK MATERIALS – POINT LEVEL DETECTION AND LIMIT VALUE RECORDING

PEPPERL+FUCHS
PROTECTING YOUR PROCESS

POINT LEVEL DETECTION

VIBRATION

The robust level limit switch Vibracon S LVL-B is stimulated to its resonance frequency by a piezoelectric drive. If the probe is covered by bulk material, the oscillation amplitude changes and the electronics evaluates this. The measuring principle is characterized by a wide application spectrum and maintenance-free measurement.

FEATURES

- No calibration, simple commissioning
- No jams of coarse-grained material
- No mechanically moving parts
- Approvals according to ATEX, FM, CSA
- 25 bar process pressure
- Temperature range –40 °C ... 150 °C
- Grain size up to 25 mm
- Bulk density: from 200 g/l

For extracting, processing and refining raw materials, easy to handle, robust and reliable field devices for limit value recording and/or for point level detection are required.

The bulk material processing industries demand the most from the measuring instruments used. There is an extensive variety of level and limit applications.

- **Asphalt**
- **Ore**
- **Concrete (mortar, floor pavements)**
- **Glass**
- **Grain, flour**
- **Gravel**
- **Plastics powders and granulates**
- **Coal**
- **Milk powder**
- **Perlites**
- **Salt**
- **Sand**
- **Brash**
- **Cement, lime, plaster**
- **Sugar**

CAPACITIVE

Capacitive level limit switches are based on the principle of a capacitor. When the bulk material covers or releases the probe, the capacity changes and the electronics switches. The compact limit switch LCL is equipped with an integrated accretion compensation.

FEATURES

- Compact and rope-extended versions
- Active accretion compensation
- Application in dust Ex areas
- Different electrical outputs
- Process pressure up to 25 bar
- Temperature range: –40 °C ... 120 °C
- Measurement range up to 6 m

ULTRASONIC

LUC-M is a compact ultrasonic measurement instrument for the non-contact continuous detection of the level.
The sensor measures the propagation time of the emitted ultrasonic waves from the sensor to the surface of the bulk material and back.

FEATURES

- Measurement range up to 7 m in bulk materials (15 m in liquid applications)
- Simple, menu-based on-site operation using a clear text display
- Envelope curve on the local display screen
- System integration using HART 4 mA ... 20 mA, PROFIBUS PA or Foundation fieldbus
- Approvals according to ATEX, FM, CSA
- Temperature range: -40 °C ... 80 °C

GUIDED MICROWAVE

By means of radar impulses on a rope or rod,
Pulscon LTC measures the level in powdery to fine-grained bulk material, regardless of changes in product properties such as humidity, density and DK value.

FEATURES

- Measurement range up to 35 m (rope version)
- Rod, rope and coax version
- Simple commissioning and calibration
- System integration using HART 4 mA ... 20 mA, PROFIBUS PA or Foundation fieldbus
- Approvals according to ATEX, FM, CSA
- Temperature range: –40 °C ... 150 °C
- Process pressure up to 40 bar

PROCESS AUTOMATION – PROTECTING YOUR PROCESS

For over a half century, Pepperl+Fuchs has been continually providing new concepts for the world of process automation. Our company sets standards in quality and innovative technology. We develop, produce and distribute electronic interface modules, Human-Machine Interfaces and hazardous location protection equipment on a global scale, meeting the most demanding needs of industry. Resulting from our world-wide presence and our high flexibility in production and customer service, we are able to individually offer complete solutions – wherever and whenever you need us. We are the recognized experts in our technologies – Pepperl+Fuchs has earned a strong reputation by supplying the world's largest process industry companies with the broadest line of proven components for a diverse range of applications.

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