

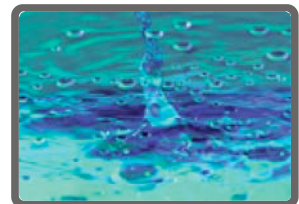
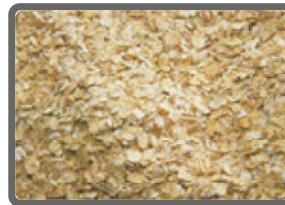
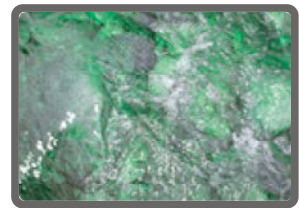
LSHD 315, LSHD 325, LSHD 350, LSHD 3100 Series

Orion Capacitive Level Switch

APPLICATIONS

Orion Capacitive is used to display (detect) levels of all kinds of powder and bulk solid materials in any type of container or silos. It is a capacitive level switch with adjustable detection sensitivity.

www.orionlevel.com



SELECTION FOR APPLICATION AREA

In construction industry for leveling of gypsum, lime, fine sand, dolomite, calcite, perlite, cement, stone, coal, pulverized coal powder, etc.

In food industry for leveling of feed, seed, flour, salt, sugar, etc.

FUNCTIONS

When the capacitive sensing type level switch's probe which is located at the bottom of the instrument is surrounded by the bulk solid material, there will be a decrease in emitted RF power. An output signal is generated when the amount of reduction is higher than the sensitivity setting. Detection sensitivity can be set up for all kind material depending on type and dielectric constant.

Permanent solutions

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Continuous Level Measurement & Level Limit Detection



TECHNICAL DATA

ELECTRICAL SPECIFICATIONS

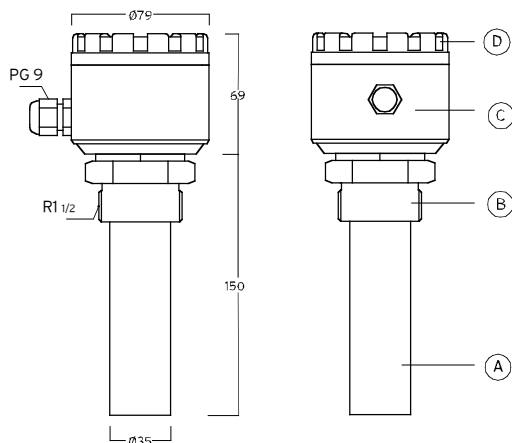
Connection terminal	: Max. 2 mm ² (AWG 14) sectioned cable input.
Fitting	: PG9
Supply Voltage	: 24V AC / DC + - 30% max. 1.2W
Signal Output	: 1 changeover contact AC max. 250V, 2A, 500VA resistive load
Signal Delay	: Max. 1.0s
Protection Class	: IP68 (cable cover fully closed and by using a fitting 4-8mm thick and full-bored)

MECHANICAL SPECIFICATIONS

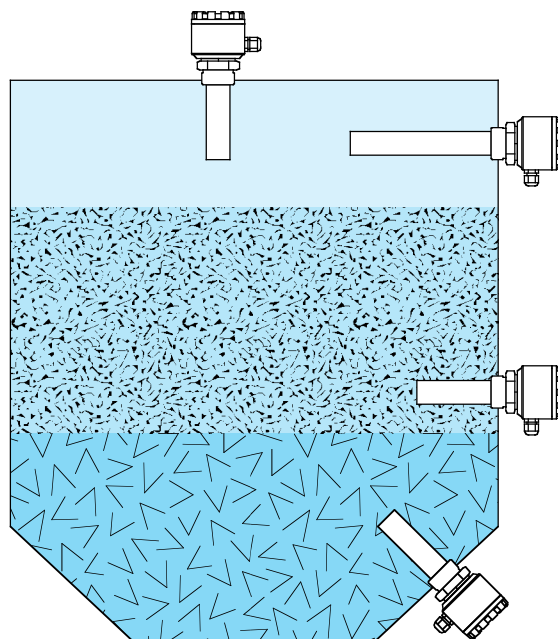
Casing	: Aluminum machining process
Probe	: IP68
Screw Material	: Black anodized steel
Screw Size	: R 1 1/2" Whitworth screw thread DIN259
Antenna Probe	: DELRIN (+110°C stable) standard or TEFLON, VITON, PVDF option
Housing	: Electrostatic powder paint RAL6014 over noncorrosive alodine coating
Weight	: 0.8 kg

WORKING CONDITIONS

Ambient Temperature	: -20°C.. +60°C (ambient)
Operating Temperature	: -20°C .. +100°C (material)
Min. Sensing Density	: 40g / l
Probe Frequency	: 1.5 MHz
Max. Particle size	: 18 mm (without using a guard)
Max. Mechanical Load	: 250 N from side
Max. Tensile Force	: 0.5 kN
Max. Silo Internal Pressure	: 10 bar
Max. Operating vibration	: 5-500Hz RMS random vibration 3G IEC-60068-2-64



- A Probe (Antenna)
- B Thread
- C Housing
- D Cover



MECHANICAL INSTALLATION

- Instrument should be kept away from the material entrance.
- In order to prevent water leakage, cable entry should be positioned as downward.
- In case of exposure to extremely heavy materials a shield should be used to protect the probe, so that the force exerting onto spindle will be reduced.
- Housing should fully be closed to ensure that sealing appropriately maintained.
- Top installation location: To detect maximum level.
- Bottom installation location: To detect the minimum level.

ORDERING CODES

LSHD315-24VDC 24V-feed type Plunge Length 150mm
 LSHD325-24VDC 24V-feed type Plunge Length 400mm
 LSHD350-24VDC 24V-feed type Plunge Length 650mm
 LSHD3100-24VDC 24V-feed type Plunge Length 1150mm

COMPLIANCE TO APPLICABLE NORMS CE COMPLIANCE

- EN 61000-6-4:2001 Generic emission standard. Industrial environments.
- EN 61000-6-2:2005 Generic immunity standard. Industrial environments.
- EN 61010-1:2001 Safety requirements for electrical equipment for measurement, control and laboratory use.