LSH 300 Series

Orion Magicap Level Switch

APPLICATIONS

Orion Magicap 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 magicap level switch with adjustable detection sensitivity.

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.

TECHNICAL DATA

ELECTRICAL SPECIFICATIONS

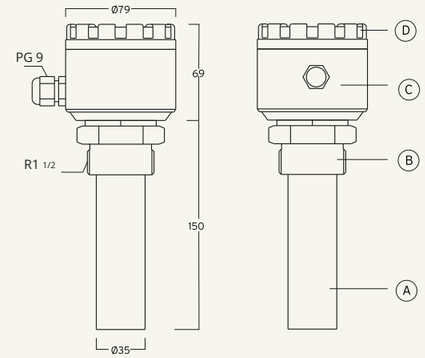
Connection Terminal	Max. 2 mm2 (AWG 14) sectioned cable input.
Fitting	PG9
Supply Voltage	24V AC / DC + - 30% max. 1.2W
Signal Output	1 changeover contact AC max. 250V, 2A, 500VA resistive load
Signal Delay	Max. 1.0s
Protection Class	IP68 (cable cover fully closed and by using a fitting 4-8mm thick and full-bored)

MECHANICAL SPECIFICATIONS

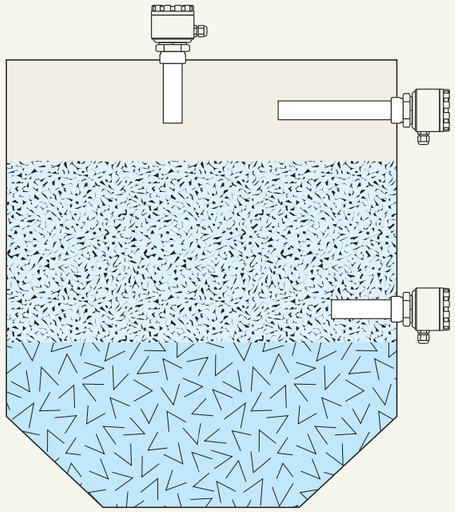
Casing	Aluminum machining process
Probe	IP68
Screw Material	Black anodized steel
Screw Size	R 1 1/2" Whitworth screw thread DIN259
Antenna Probe	DELRIN (+110°C stable) standard or
	TEFLON, VITON, PVDF option
Housing	Electrostatic powder paint RAL6014
	over noncorrosive alodine coating
Weight	: 0.8 kg

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.