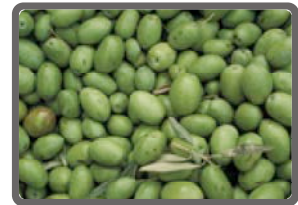
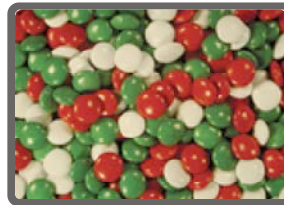


# Rotary 320 Series (No gear box)

Digital 8-Stage Torque Rotary Paddle Level Limit Switch

## APPLICATIONS

Orion Rotate is used to display (detect) levels of all kinds of powder and solid bulk materials in any type of container or silos. Torque setting is available in 8 different torque levels that can be set with triple DIP switch.



## SELECTION FOR APPLICATION AREA

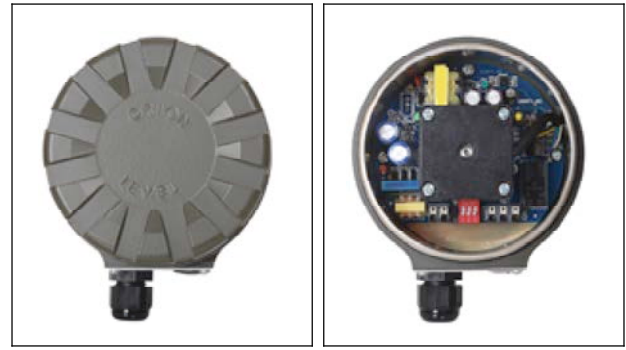
In construction industry for leveling of gypsum, lime, fine sand, dolomite, calcite, perlite, cement, stone, coal, pulverized coal powder, etc.

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

In plastic industry for leveling of plastic particles, etc.

## FUNCTIONS

Particulate matter surround the probe reduces the velocity of rotary paddle structure on the front side of the motorized type level switch. When this reduction is high enough to stop rotary pallet, rotation is sensed by an optical sensor and an output signal is generated. Detection sensitivity can be set up for all kind material depending on type and density.



## TECHNICAL DATA

### ELECTRICAL SPECIFICATIONS

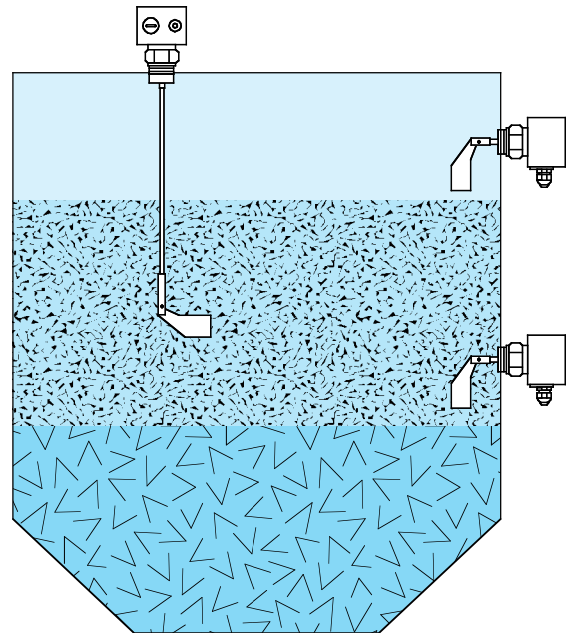
Connection Terminal	: Max. 2 mm <sup>2</sup> (AWG 14) sectioned cable input.
Fitting	: PG9
Supply Voltage	: 24V AC / DC + - 30% max. 2.7W
Supply Voltage	: 220V AC / DC + - 20% max. 3.1W
Signal Output	: 1 changeover contact AC max. 250V, 2A, 500VA resistive load
Signal Delay	: Max. 1.6 s
Protection Class	: IP68 (cable cover fully closed and by using a fitting 4-8 mm thick and full-bored)

### MECHANICAL SPECIFICATIONS

Casing	: Aluminum machining process
Probe	: IP68 EN60529
Shaft Bearing	: Ball bearings, double bed, dust-proof
Sealing	: NBR radial rotating shaft seal (EPM Option) material
Screw Material	: Delrin® POM-C EN 10204
Screw Size	: R 1 1/2" Whitworth screw thread DIN259
Rot and Flag Material	: Stainless steel SS304
Housing	: Electrostatic powder paint RAL6014 over noncorrosive alodine coating
Weight	: 1.16 kg

### WORKING CONDITIONS

Ambient Temperature	: -20°C.. +60°C (ambient)
Operating Temperature	: -5°C.. +100°C (material)
Min. Sensing Density	: 250 g / L (with standard flag)
Max Shaft Output Torque	: 550 gcm
Flag Rotation Speed	: 8 rpm
Max. Particle Size	: 12 mm (without using a guard)
Max. Mechanical Load	: 500 N from side
Max. Tensile Force	: 1.0 kN
Max. Silo Internal Pressure	: 0.5 bar
Max. Operating Vibration	: 5-500Hz RMS random vibration 3G IEC-60068-2-64



## MECHANICAL INSTALLATION

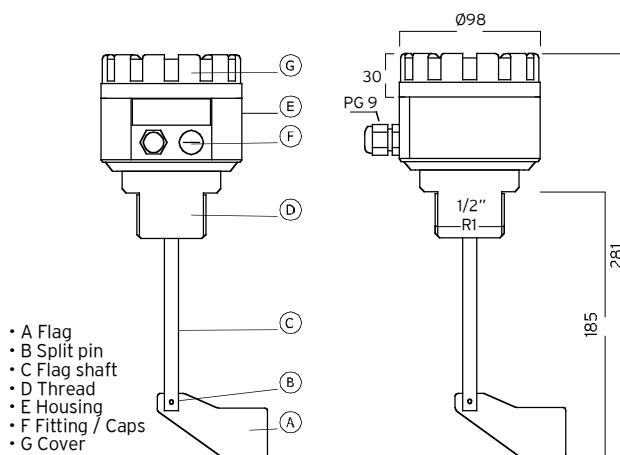
- Instrument should be kept away from the material entrance.
- Must be installed perpendicular to the surface. Friction between flag part and the surface or material obstruction between surface and flag should be avoided
- In order to prevent water leakage, cable entry should be positioned as downward.
- 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.

## ORDERING CODES

There are two types of instruments as ROT0320-24VDC 24V feed type and ROT0320-220VAC 220V feed type.

## 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.



- A Flag
- B Split pin
- C Flag shaft
- D Thread
- E Housing
- F Fitting / Caps
- G Cover