

# ROTATING PROBE LEVEL SWITCH



### **FEATURES**

- Simplicity of construction, installation and maintenance
- Operation guaranteed even during loading and unloading of material
- Robust, cost effective, and suitable for harsh and heavy-duty applications
- Fixed switch unaffected by vibrations

# APPLICATIONS

- Food & Beverage
- Chemistry
- Oil & Gas
- Cement
- Papermaking



## DESCRIPTION

The rotating probe Level Switch IDITROL is used for solid materials such as sand, powder, concrete, flour, gravel, resin in tanks, silos or cisterns and even with liquids with suspended solids.

It consists of a low power motor with its reducer, a magnetic coupling, a switching group and a probe immersed in the vessel. The motor rotation inside the housing is transmitted to the probe trough the magnetic coupling. Since this coupling is not stiff, any shock suffered by the probe is not transmitted to the internal components.

The probe stops rotating when it comes in contact with the material, due to the friction force, and it interrupts the magnetic coupling with the motor that will continue its rotation. The magnetic leakage causes the dry-end switch closure, followed by the activation of a power relay that, through two changeover contacts, turns off the motor, changing an LED from red to green, and it disengages the power solenoid valve.

When the probe is not submerged in the material, it will resume its rotation, reactivating the magnetic field and switching the relays, which will consequently turn on the motor and change the indicator light from green to red.

The deactivation of the motor avoids any possible overload and it reduces the instrument wear.

### **TECHNICAL SPECIFICATIONS**

- Top or side mounted
- Suitable up to 100 °C
- External diameter 170 mm, vertical dimension 160 mm
- Aluminium body
- Diecast aluminium housing IP57
- Stainless steel probe, thickness 1mm, suitable also for liquid mixtures with suspended solids
- High-performance synchronous silence motor
- Available power supplies: 24VDC, 48 VDC, 115 VAC, 230 VAC
- Two-switch power relay: 10 A, 250 V, ground insulation voltage 2000 V r.m.s. 50 Hz for 60 s
- Electrical connection 1/2 GAS, with reductions or cable glands on request
- Power consumption: 5 W
- Rounds per minute: 3
- Drive torque: 3000 g/cm

### **EXTENSIONS**

On request the probe can be mounted on a rigid or flexible extension:

- Cadmium-plated rods in passivated mild steel, length 250 or 435 mm
- Flexible cable Ø6, length up to 10 m
- Modular flexible cable Ø16 length 420 mm



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