

Mucon
The Power to Control Powders

ROTALOG® Rotary Paddle Level Indicators

The ROTALOG Rotary Paddle Level Indicator is designed to signal the presence, or absence, of bulk materials such as powders, chips and granules. It is ideal for hoppers, silos and bunkers as well as for blockage detectors on conveyor chutes. If material impedes the rotation of the paddle, the control signal changes and the motor circuit switches off. In this state all active parts are stationary; therefore no wear takes place.

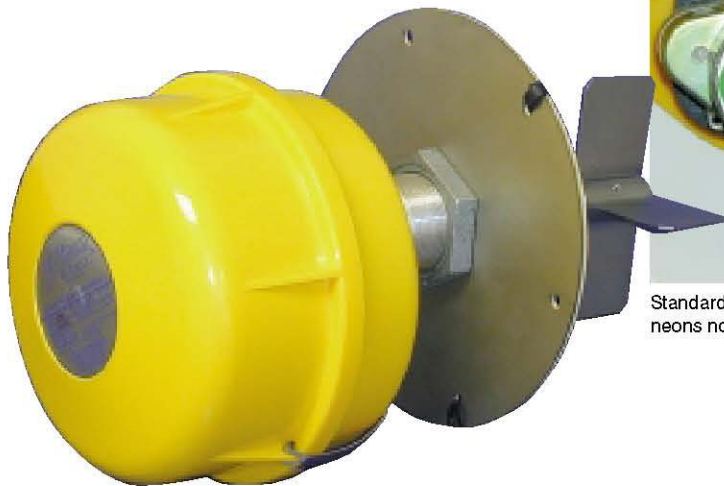
Specification

Housing

A dust tight and weatherproof enclosure to IP65 BS4999 moulded in ABS Plastic.

Electrical Circuit

There are two types of circuit: standard and electrical failsafe. The control switch is of the single pole changeover type rated at 1250 V.A. 5 amps maximum current flow resistive.



Standard Rotalog (relay and local neons not shown).

The motor circuit supply voltages can either be 24, 48, 110-115 or 220-250 volts, single phase, 50 or 60 Hz, with a power consumption of less than 9 watts.

Local neon indicator lights can be included in the Head Unit if required.

Features of The Rotalog Rotary Paddle Level Indicator

- Proven reliability over many years and in thousands of installations.
- Superior shaft sealing.
- Special models suitable for operating up to 200°C.
- Adjustable sensitivity.
- Failsafe option available.
- Low power consumption when running. When stalled by presence of product, no power is consumed at all, adding to the longevity of ROTALOG Rotary Paddle Level Indicators.
- Clutch allows for accidental twisting of the shaft due to surge loads without damage to the motor gear box. Single vane paddle for low level applications lines up with flow direction to minimise bending load on shaft. Other side mounted models have a flexible shaft connection.
- Supplied complete with stainless steel mounting flange.
- Some models available ex-stock.

Additional features in the electrical failsafe circuit are:-

- a) Automatic changeover of the control switch upon motor circuit failure.
- b) "Operational" output to continuously monitor the state of the motor circuit.
- c) "Failure" output to provide a signal if the motor circuit breaks.

These three signals are provided by a relay.

Paddles

The paddles are stainless steel. The paddle type is selected to suit the product material characteristics.

Mounting Flange

This is 18 S.W.G. x Ø203mm stainless steel with 6 holes, Ø7.2mm equi-spaced on 178mm P.C.D.

Shaft

The paddle shafts of models 2 and 4 are fitted to the main shaft of the control unit by a suitable flexible coupling.

Guide Tube

Guide tubes are fitted to top mounted units and support the extension shaft without impeding the free rotation of the paddle.

Seals

The main output shaft of the head unit runs on two sealed bearings. In addition, a shaft seal is fitted as standard to all units.

Contact Parts

Metallic contact parts on all models are stainless steel as standard.

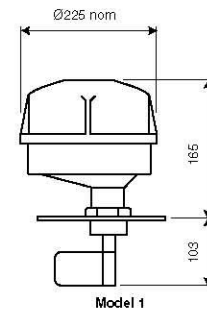
Temperature Range

The unit operates in an ambient temperature range of -10° to $+50^{\circ}\text{C}$. Custom built high temperature units can be supplied.

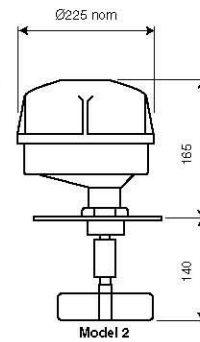
Choice of Model

Installation and Selection

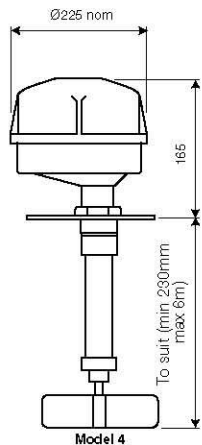
SIDE MOUNTING SINGLE VANE



SIDE MOUNTING RUBBER COUPLING 2 OR 4 VANE PADDLE



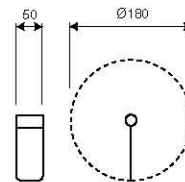
TOP MOUNTING 2 OR 4 VANE PADDLE WITH EXTENDING SHAFT



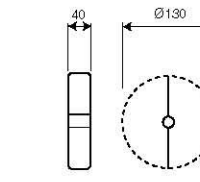
Baffle plates are required above side mounted units for heavy materials or where bridging, arching material surges or other detrimental flow characteristics are likely to occur.

Paddle Selection

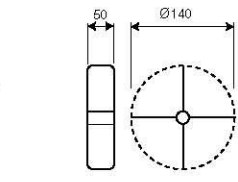
Minimum \varnothing of hole in sheet material to allow insertion of paddle into hopper $\varnothing 140$.



SINGLE VANE
For general use on side mounted units. Particularly suitable for poor flowing or high density materials.

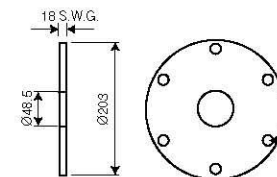


TWO VANE
For use on top mounted units on heavy materials or side mounted units with rubber flexible coupling.



FOUR VANE
For maximum sensitivity on top mounted units or side mounted units with rubber flexible coupling.

Mounting plate

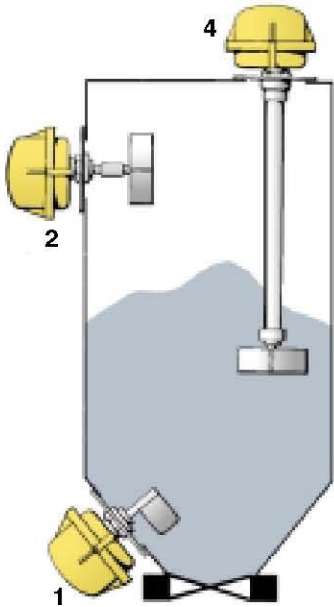


The mounting plates (with suitable gaskets) are supplied in stainless steel.

Note: On Model 4 Rotalog mounting plate thickness increased to 12 S.W.G.

6 holes $\varnothing 7.2$ equi-spaced on a 178 P.C.D.

* All dimensions in mm



1 LOW LEVEL

Side mounting, single vane paddle solid shaft with shaft seal (Nominal shaft length 103mm).

2 HIGH LEVEL

Side mounting, 4 vane paddle with rubber moulded flexible coupling and shaft seal (Nominal shaft length 140mm).

4 HIGH LEVEL

Top mounting, 4 vane paddle extension shaft and guide tube fitted with guide tube seal (Shaft length to required product material level). See paddle selection for further details.

How to order

Please state:

- 1 Model number.
- 2 Motor voltage and frequency.
- 3 Electrical circuit "standard" or "failsafe".
- 4 Contact parts in stainless steel.
- 5 Length of extension shaft.
- 6 Paddle type.

The following additional information will ensure that the previous specification suits the application.

- 7 Location of the unit (supply sketch).
- 8 High or low level.
- 9 Name of material being detected.
- 10 Material size (micron, mesh or inches).
- 11 Material bulk density.
- 12 Temperatures – maximum in bin. Maximum outside bin.

- 13 If bin is pressurised, state the maximum pressure or the vacuum.
- 14 What is control to actuate?
 - a. Panel light only?
 - b. Panel light and motor controls?
 - c. Motor controls or relays only?
- 15 Any special requirements?
- 16 Do you require local neon indicators to be fitted?

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