

ROTSAFE Rotary Level Indicator

APPLICATION

The Roto-Safe rotary paddle switch is designed to detect high and low levels of bulk granular solids in bins, tanks, silos, and as blockage detectors in spouts where failsafe detection is required, or for dust hazard areas.

METHOD OF OPERATION

The detection of material is achieved by a rotating paddle. If material impedes the rotation of the paddle, the motor topples of its axis and triggers a contact. The power supply to the motor is cut and the contact signals that a critical level has been reached, which will cause the motor for any inlet or outlet to close down or start up. When the level of the material reaches normal levels again, the motor returns to its initial position and restarts.

In the case of a power failure, the Roto-Safe has a fail safe relay that will signal the control room or sound an audible alarm indicating that the unit is not working. Through the control circuit, this alarm can stop any motor filling or emptying the silo.

The Roto-Safe also has a built in rotation detection circuit. The output operates from 0 to 20 seconds after the motor has stalled. This feature can be tested by using the magnetic test feature on the outside of the case.

FEATURES

- ▶ Failsafe Paddle Rotation Detection
- ▶ Glass Fiber Reinforced Nylon Housing
- ▶ Vertical Extensions to 14 Feet are Available
- ▶ Internal Sensitivity Adjustment
- ▶ Adjustable Timer
- ▶ Power Fail Alarm
- ▶ Automatic Power Shut-Off
- ▶ 4 Paddle Versions Available
- ▶ Dust Hazard Approved

PART NUMBERS/ACCESSORIES

- ▶ RTS1V0C Roto-Safe 110/240 VAC or 24 VDC (Universal Supply)
- ▶ RLISP1 Insertable Paddle
- ▶ RLISP2 Insertable Paddle
- ▶ RLISP3 Three Vane 5" Diameter Paddle
- ▶ RLISP4 Three Vane 7" Diameter Paddle
- ▶ SMP Side Mounting Plate
- ▶ SMPS Side Mounting Plate – Stainless Steel
- ▶ TMP Top Mounting Plate
- ▶ TMPS Top Mounting Plate – Stainless Steel

Detailed specification, wiring diagrams and installation/operating instructions available immediately upon request.



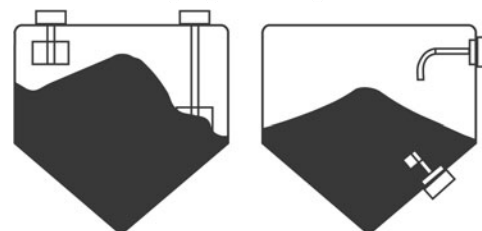
**Roto-Safe with RLISP3
Three Vane 5" Diameter Paddle**



IECEX

ATEX & IECEx
Approved Versions Available

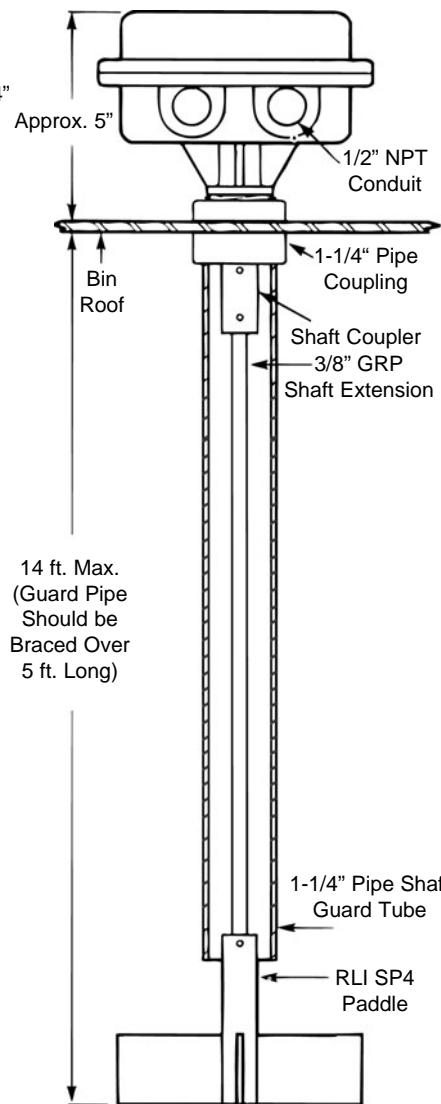
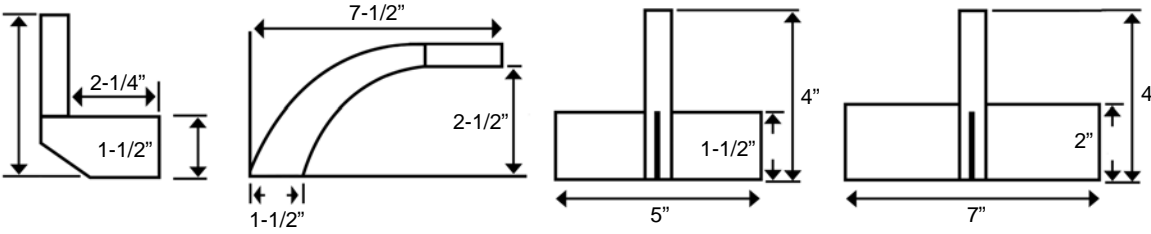
Mounting Options (Top & Side)



Please refer to instruction manual for correct installation.
Information subject to change or correction. March 2008.

PADDLE VARIATIONS

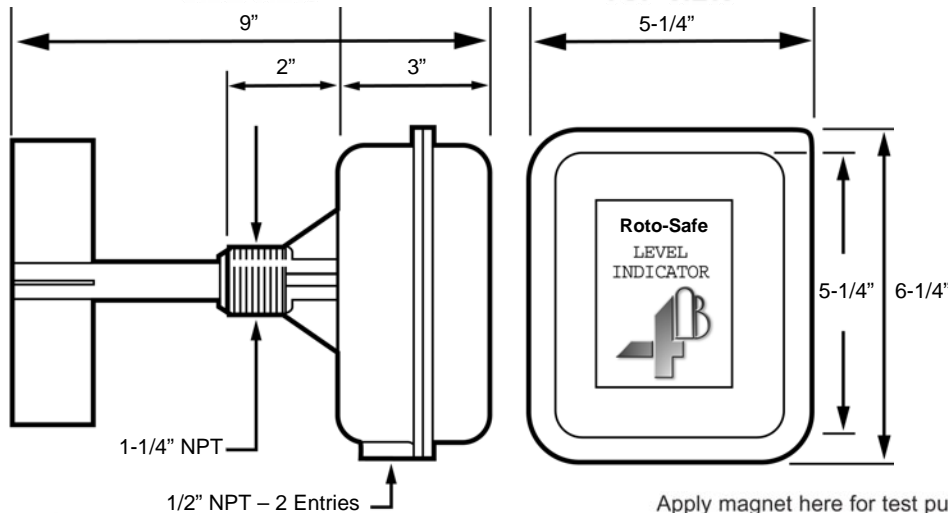
WITH SHAFT EXTENSION



RLISP1	RLISP2	RLISP3	RLISP4
Single Vane - Insertable for Materials Over 70 PCF (Coal, Stones, Etc.)	Single Vane - Insertable for Materials 30 - 70 PCF (Powders, Light Grain & Seed)	Three Vane for Materials 30 - 70 PCF (Grain, Beans, Oil Seeds)	Three Vane for Materials Under 30 PCF (Flour & Light Materials)

SIDE VIEW

TOP VIEW



TECHNICAL SPECIFICATIONS

Roto-Safe: Rotary Level Indicator

CLASS II DIVISION 1, GROUPS E, F & G HAZARDOUS LOCATIONS. SUBSTITUTION OF COMPONENTS MAY REQUIRE APPROVAL. KEYS MUST BE TIGHT WHILE CIRCUITS ARE ALIVE. GARDER LE COUVERCLE FERME LORSQUE LES CIRCUITS SONT ALIMENTES.

Test Mag

RTS1V0C XXXXX

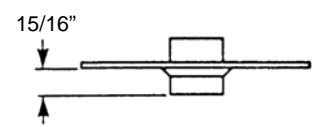
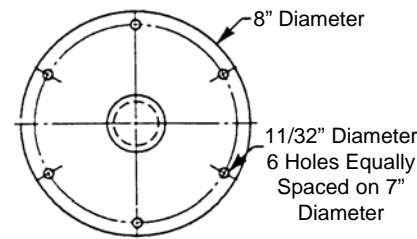
SUPPLY: 110V/240V 50/60 Hz or 24V dc. POWER RATING: 1.5VA. AMBIENT TEMPERATURE: -20°C to +60°C.

(Label on Back of Unit)

RTS1V0C Roto-Safe	
Power Supply:	120/240 VAC or 24 VDC (Universal Supply)
Supply Tolerance:	± 10%
Power Consumption:	450 mA
Fuse:	5 Amp
Operating Temperature:	-4°F to + 140°F
Output:	Voltage Free Relay
Contact Rating:	Rated at 3 Amps/250 Volts
Conduit Entry:	Two, 1/2\" NPT
Mounting:	1-1/4\" NPT
Connections:	Screw Terminal Block
LED Indicators:	3 - Power On, Motion, and Output On
Enclosure:	Flame Retardant Glass Reinforced Nylon
Weight:	2.25 lb. (Power Pack Only)
Protection:	IP65 - NEMA 4
Approvals:	Approved for Class 2 div. 1 Groups E, F, & G (US and Canada) CE - Europe, ATEX & IECX Available



MOUNTING PLATE



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