



## FEATURES AND BENEFITS

### Simple Mechanical Device

- No calibration required

### Wide Variety of Paddle Options

- Unequaled application versatility

### Mount in Any Orientation

- Mount sensor for high, intermediate, or low level control

### Explosion Proof & Stainless Steel Enclosures Available

### Special Motor Design

- Allows power to be applied all the time, producing heat and eliminating condensation inside the enclosure.

### Captive Screws

- No lost screws

### Super Safe Operation

- In the event of power loss, open or shorted motor circuit, component failure of motor or clutch (output shaft stops rotating) in either high or low level applications, Super-Safe-Plus, operation will generate the desired control response from the output relay and provide notification of failure.

**DESCRIPTION** The Roto-Bin-Dicator® is the most universal of all level sensing technologies and is the most popular level switch used in dry bulk materials. The Roto-Bin-Dicator® is a rotating paddle type, bulk material level sensor offered with a wide variety of paddle options for unequaled application versatility. It is easy to install and requires no special tools or calibration.

## SPECIFICATIONS

### FUNCTIONAL

Operating Power	120 VAC, 240 VAC or 24 VDC* (*Super-Safe models only)
Power Consumption	7 watts; 1/8 amp internally fused
Motor Rating	4 watts, 1 rpm
Relay	Level Alarm contacts: SPDT, 1 Form C, 10 amps at 125 VAC, 6 amps at 277 VAC, 5 amps at 30 VDC Failure Indication contacts: SPDT, 1 Form C, 0.6 amps at 125 VAC, 2 amps at 30 VDC
Fail-Safe Circuitry	Low or high level field selectable
Operating Temperature	-40° to 200° F (-40° to 93° C)

### PHYSICAL

Drive Shaft Assembly	Precision machined shaft with two shielded ball bearings
Shaft Seal	Teflon®/Viton® Lipseal rated 1/2 Micron at 30 psi (2.1 kg/cm <sup>2</sup> ) at 400° F (204° C)
Housing and Cover	Dust-tight and weatherproof (NEMA 4X) polyester-coated aluminum casting
Mounting Plate	8" outside diameter with 1 1/4" NPT pipe threaded coupling; standard polyester coated mild steel; optional 304 SS
Rigid Shaft and Paddle	Metal parts of all designs are 304 SS
Flex Shaft	Available in either neoprene, 155° F (68° C) or silicone, 400° F (204° C) coatings
Pulse Wheel	Multi-toothed pulse wheel with an opti-reflective circuit
External Lights	Green (power/diagnostics) and red (alarm/diagnostics) lights
Shipping Weight	Aluminum housing 10 lbs, SS housing 16 lbs

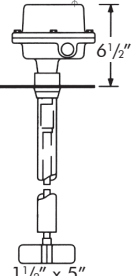
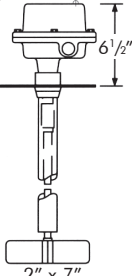
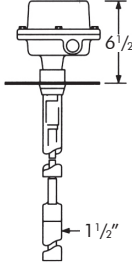
### APPROVALS

	UL: General Purpose Class I, Groups C and D; Class II, Groups E, F and G; Type 4, 4x
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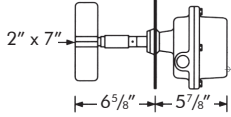
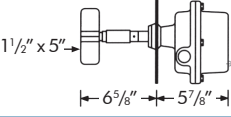
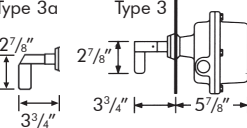
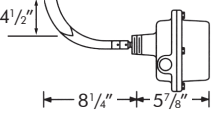
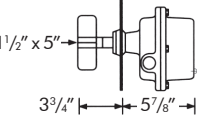
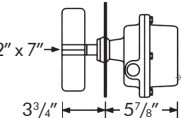
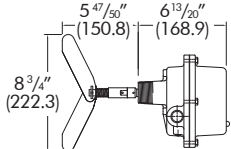
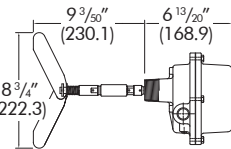
## HOW TO ORDER

RSS -	-	H -	-
<p>SS = SS mounting plate, otherwise leave blank</p> <p><b>MOUNTING</b> (See drawings of Types, this page.)</p> <p>1 = Type 1: Large 4-vane paddle, molded neoprene flexible shaft</p> <p>2 = Type 2: 4-vane paddle, molded neoprene flexible shaft</p> <p>3 = Type 3: Single vane paddle</p> <p>3a = Type 3a: Single vane paddle with 45° cut</p> <p>3i = Type 3i: Single vane paddle, insert through 1 1/4" mounting coupling</p> <p>4 = Type 4: Standard 4-vane paddle</p> <p>5 = Type 5: Large 4-vane paddle</p> <p>6 = Type 6: 4-vane paddle with shaft coupling for shaft extension</p> <p>7 = Type 7: Large 4-vane paddle with shaft coupling for shaft extension</p> <p>8 = Type 8: Neoprene or SS multiplex paddle with shaft coupling for shaft extension</p> <p>9 = Type 9: Collapsible 2-vane SS paddle</p> <p>10 = Type 10: Collapsible 2-vane SS paddle, flexible shaft</p>			
<p><b>POWER PAK (See Note)</b></p> <p><b>Super-Safe-Plus Only</b></p> <p>P1G = 120 VAC, 2 SPDT, Weather Proof NEMA 4X</p> <p>P2G = 240 VAC, 2 SPDT, Weather Proof NEMA 4X</p> <p>P1X = 120 VAC, 2 SPDT, Explosion Proof NEMA 7,9</p> <p>P2X = 240 VAC, 2 SPDT, Explosion Proof NEMA 7,9</p> <p><b>Super-Safe Only</b></p> <p>3XH = 24 VDC, DP/DT, Explosion Proof NEMA 7,9</p> <p>3GH = 24 VDC, DP/DT, Weather Proof NEMA 4X</p>			
<p><b>RSS SUPER SAFE AND SUPER SAFE PLUS</b></p> <p>Note: Stainless Steel versions available. Consult Factory.</p>			

## Top Bin Mounting

<p><b>TYPE 6</b></p> 	<p><b>TYPE 7</b></p> 	<p><b>TYPE 8</b></p> 
<p>4-vane paddle with shaft coupling for shaft extension</p> <p>Custom configuration for most top-mounted applications.</p>	<p>Large 4-vane paddle with shaft coupling for shaft extension</p> <p>Custom top-mount configuration with large paddle for materials weighing less than 30 lbs/ft<sup>3</sup>.</p>	<p>Neoprene or SS multiplex paddle with shaft coupling for shaft extension</p> <p>For heavy, large, lumpy or sticky materials. Use neoprene paddles 24" long or SS multiflex paddles 17" long for materials that are 50 lbs/ft<sup>3</sup> or more.</p>

## Side Bin Mounting

<p><b>TYPE 1</b></p> 	<p>Large 4-vane paddle, molded neoprene flexible shaft.</p> <p>For applications up to 155° F (68° C) and materials weighing less than 30 lbs/ft<sup>3</sup>. For temps above 155° F (68° C) use a silicone shaft.</p>
<p><b>TYPE 2</b></p> 	<p>4-vane paddle, molded neoprene flexible shaft.</p> <p>For applications up to 155° F (68° C) and materials weighing 30 to 75 lbs/ft<sup>3</sup>. For temps above 155° F (68° C) use a silicone shaft.</p>
<p><b>TYPE 3a &amp; 3</b></p> 	<p>Type 3: Single vane paddle.</p> <p>Type 3a: Single vane paddle with 45° cut.</p> <p>For heavy applications with 75 lbs/ft<sup>3</sup> or more; e.g. sand, gravel or other medium sized particles.</p>
<p><b>TYPE 3i</b></p> 	<p>Single vane paddle, insert through 1 1/4" mounting coupling.</p> <p>Curved 9" diameter paddle for most materials weighing over 20 lbs/ft<sup>3</sup>. Mounting plate not included.</p>
<p><b>TYPE 4</b></p> 	<p>Standard 4-vane paddle.</p> <p>Short shaft configuration for most materials. For applications with temps up to 200° F (93° C).</p>
<p><b>TYPE 5</b></p> 	<p>Large 4-vane paddle.</p> <p>Short shaft configuration with large paddle for materials weighing less than 30 lbs/ft<sup>3</sup> and temps up to 200° F (93° C).</p>
<p><b>TYPE 9</b></p> 	<p>Collapsible 2-vane SS paddle.</p> <p>For applications up to 200° F (93° C) and materials weighing 20 to 75 lbs/ft<sup>3</sup>. Mounting plate not included.</p>
<p><b>TYPE 10</b></p> 	<p>Collapsible 2-vane SS paddle, flexible shaft.</p> <p>For applications up to 155° F (68° C) and materials weighing 20 to 75 lbs/ft<sup>3</sup>. For temps above 155° F (68° C) use a silicone shaft. Mounting plate not included.</p>



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LAR 180103 Rev. E

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