



## VERSATILE ENOUGH TO BECOME YOUR GLOBAL STANDARD

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.

## FEATURES AND BENEFITS

- A simple, mechanical mechanism means no calibration is required for quick installation
- Long-lasting, sealed motor keeps maintenance and replacement costs low
- Extensive Paddle Options to adapt to a variety of applications
- Frame designed to enable connection flexibility
  - Imperial or Metric conduit entry options
  - Process Fitting can be made to fit any connection

## SPECIFICATIONS

### FUNCTIONAL

Power Requirements	24/120/240 VAC; 50/60 Hz, 24 VDC
Power Consumption	5 watts
Motor	1 rpm
Fail-Safe Circuitry	Low level fail safe
Switch Rating	General Purpose: SPDT 20A @ 125/250/480 VAC. Pilot Duty: 345 VA, 115 VAC; 690 VA, 230 VAC
Process Temperature	-20° to 302° F (-29° to 150° C) Standard Up to 500° F (Up to 260° C) with Extension 3 and Lag

### PHYSICAL

Drive Shaft Assembly	Precision machined shaft with two shielded ball bearings
Shaft Seal	Teflon <sup>®</sup> /Viton <sup>®</sup> Lipseal rated 1/2 micron @ 30 psi (2.1 kg/cm <sup>2</sup> ) @ 400° F (204° C)
Housing and Cover	Type 4X/IP66 polyester coated aluminum casting
Mounting Plate	8" outside diameter with 1 1/4" NPT pipe threaded coupling; standard polyester coated mild steel; optional 304 stainless steel; H-19 Half Coupling; H-192 Full Coupling
Conduit Entry	3/4" NPT or M20 x 1.5
Rigid Shaft and Paddle	Metal parts of all designs are 316 stainless steel
Flex Shaft	Available in neoprene, 155° F (68° C) or silicone, 400° F (204° C) coatings
Shipping Weight	Aluminum housing 10 lbs (4.5 kg) Stainless steel housing 16 lbs (7.3 kg)

NOTE. Consult Factory where the housing temperature will be above 200° F (93° C). Shaft extensions and guards are available in galvanized or 316 SS. The Roto-Bin-Dicator<sup>®</sup> is also available with the Super-Safe-Plus option.

## ROTO-BIN-DICATOR - ORIGINAL - PART ONE

POWER PACK OPTIONS COMPLETE CONFIGURATION

**Process Fitting**

- X1 = Aluminum Frame Neck, NPT 1-1/4"
- X2 = 304 Stainless Steel Frame Neck, NPT 1-1/4" (Note 12)
- C2 = 316 Stainless Steel NPT 1-1/4
- D2 = 316 Stainless Steel NPT 1-1/2"
- E2 = 316 Stainless Steel BSP Tapered R 1-1/4"
- F2 = 316 Stainless Steel BSP Tapered R 1-1/2"
- J2 = 316 Stainless Steel BSP Straight G 1-1/4" (Note 11)
- K2 = 316 Stainless Steel BSP Straight G 1-1/2" (Note 11)
- M2 = 316 Stainless Steel Tri-Clamp 1-1/2" (Note 13)
- N2 = 316 Stainless Steel Tri-Clamp 2" (Note 13)

**Housing Finish**

- A = Powder Coated Aluminum
- B = 304 stainless steel (Notes 2, 3, 12)
- C = Epoxy Painted Aluminum
- D = Electroless Nickel Plated Aluminum (Note 2)

**Model (Note 1)**

**Ordinary Location**

- Standard Roto-Bin-Dicator
- R-H = 120 VAC, 1SPDT
  - RA-H = 120 VAC, 2SPDT
  - RB-H = 240 VAC, 1SPDT
  - RC-H = 240 VAC, 2SPDT
  - RD-H = 24 VDC, 1SPDT
  - RE-H = 24 VDC, 2SPDT
  - RF-H = 24 VAC, 1SPDT
  - RG-H = 24 VAC, 2SPDT
  - R-HM = 120 VAC, 1SPDT, Metric
  - RA-HM = 120 VAC, 2SPDT, Metric
  - RB-HM = 240 VAC, 1SPDT, Metric
  - RC-HM = 240 VAC, 2SPDT, Metric
  - RD-HM = 24 VDC, 1SPDT, Metric
  - RE-HM = 24 VDC, 2SPDT, Metric
  - RF-HM = 24 VAC, 1SPDT, Metric
  - RG-HM = 24 VAC, 2SPDT, Metric

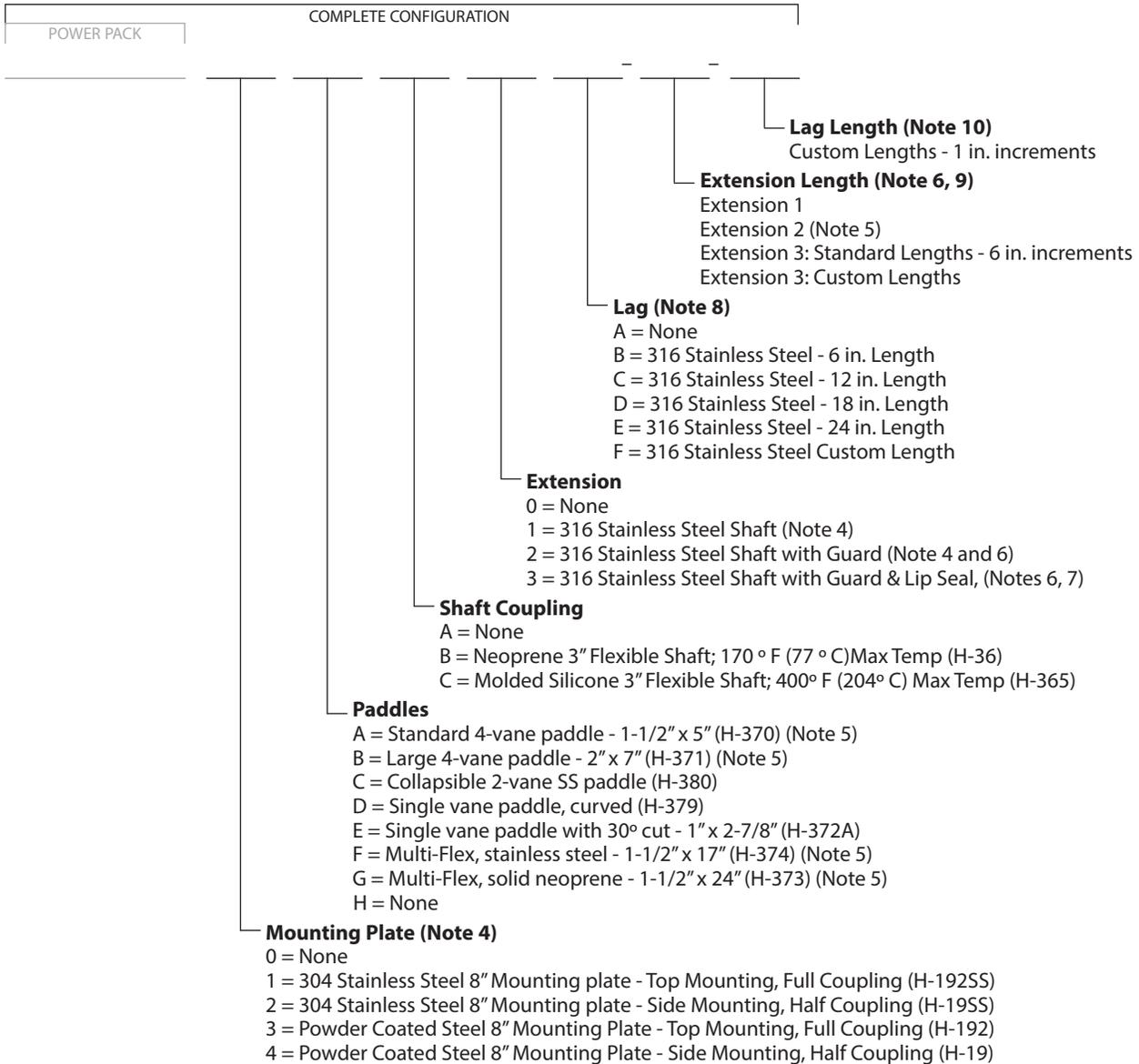
Note 1. For PowerPack ordering: for powder coated aluminum and 1-1/4 in. NPT order by model number only.

**Hazardous Location**

- Standard Roto-Bin-Dicator
- RX-H = 120 VAC, 1SPDT
  - RXA-H = 120 VAC, 2SPDT
  - RXB-H = 240 VAC, 1SPDT
  - RXC-H = 240 VAC, 2SPDT
  - RXD-H = 24 VDC, 1SPDT
  - RXE-H = 24 VDC, 2SPDT
  - RXF-H = 24 VAC, 1SPDT
  - RXG-H = 24 VAC, 2SPDT
  - RX-HM = 120 VAC, 1SPDT, Metric with ATEX and IEC approvals
  - RXA-H M= 120 VAC, 2SPDT, Metric with ATEX and IEC approvals
  - RXB-HM = 240 VAC, 1SPDT, Metric with ATEX and IEC approvals
  - RXC-HM = 240 VAC, 2SPDT, Metric with ATEX and IEC approvals
  - RXD-HM = 24 VDC, 1SPDT, Metric with ATEX and IEC approvals
  - RXE-HM = 24 VDC, 2SPDT, Metric with ATEX and IEC approvals
  - RXF-HM = 24 VAC, 1SPDT, Metric with ATEX and IEC approvals
  - RXG-HM = 24 VAC, 2SPDT, Metric with ATEX and IEC approvals

Note 14: For Hazardous Location models that require extended ambient temperature -40° to 113°F (-40° to 45°C), add suffix 'T' to model number.  
Example: RX-HT

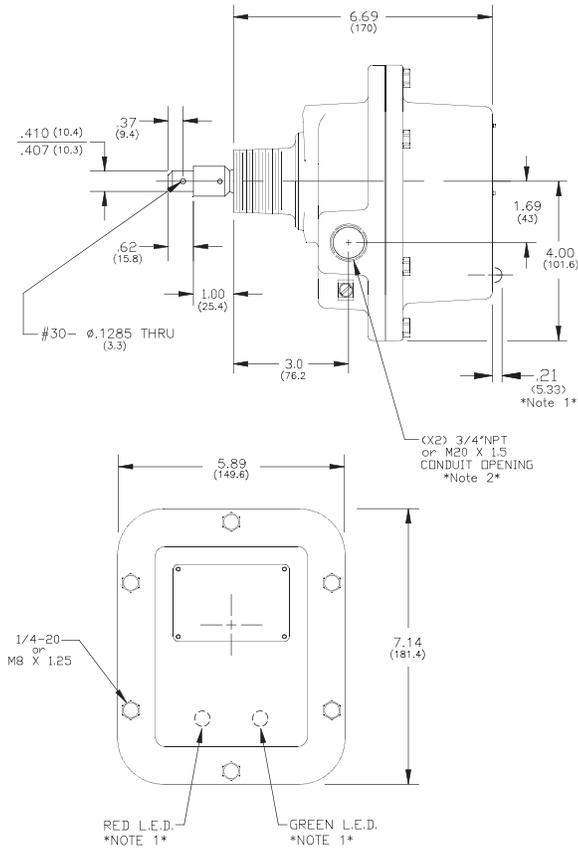
## ROTO-BIN-DICATOR - ORIGINAL - PART TWO



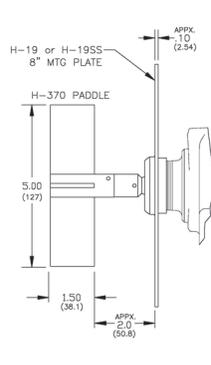
### Notes:

- Hazardous location approval not available with stainless steel Housing Finish or electroless nickel plated aluminum Housing Finish.
- Function Test FOB not available with stainless steel Housing Finish
- For Mounting Plates Process Fitting must be X1, X2, or C2. Extensions 1 and 2 must use Mounting Plate 1 or 3 (Top Mounted)
- Mounting plate is required.
- Shaft guard length will be 2 in. (5 cm) shorter than extension length unless otherwise noted
- Process Fitting cannot be X1 or X2 and maximum length is 36 in. (91 cm) and if used with Extension, the maximum total length is 48 in. (122 cm)
- Lag not available with process fitting X1 or X2, and if used with Extension, the maximum total length is 48 in. (122 cm)
- Maximum extension length is 180 in. (4.6 m), minimum length is 3 in. (7.6 cm); leave blank if not used.
- Maximum lag length is 24 inches, minimum length 1 in. (2.5 cm); leave blank if not used
- EPDM Flat gasket is included for Process Fittings with straight threads.
- X2 Process Fitting and Stainless Steel Housing Finish can only be ordered together.
- M2 and N2 Process Fitting only available with C, D, E, F and G Paddles.

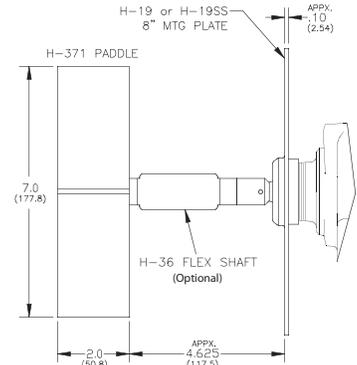
## Housing Dimensions



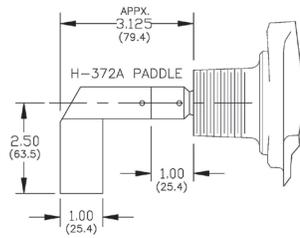
## Standard 4-Vane Paddle



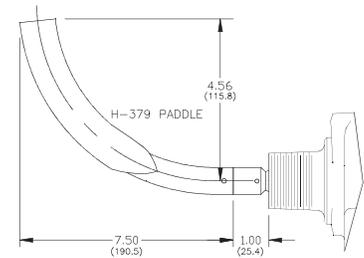
## Large 4-Vane Paddle



## Single Vane Paddle 30° Cut



## Single Vane Paddle Curved



## AGENCY APPROVALS

### UL (US and Canada)

- Ordinary Location, Type 4X; IP66
- Hazardous Locations, Type 4X  
Explosion Proof, Class I, Div 1, Groups C, D  
Dust Ignition Proof, Class II, Div 1, Groups E, F, G

### CE

- Electromagnetic Compatibility Directive
- Low Voltage Directive

## Collapsible Paddle

