

# RB Series Rolling Ball Sensor Switch



## Features/Benefits

- Different angle options to trigger
- Ultra miniature design
- Patent awarded

## Typical Applications

- Household goods
- Electronic toys
- Consumer electronics including irons, portable heaters, games, toys
- Safety and security controls



| PART NUMBER     | PACKAGING    |
|-----------------|--------------|
| <b>RB-231X2</b> | 1,000 pieces |



## Specifications

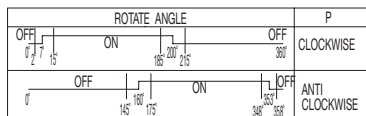
CONTACT ARRANGEMENT: SPST  
 SENSOR ANGLE: 0° to -10° scope inside, terminal to disconnection electric current  
 MINIMUM VOLTAGE: 1 VDC 10mA (resistive load)  
 MAXIMUM VOLTAGE: 5 VDC 1mA (resistive load)  
 OPERATING LIFE: 100,000 cycles  
 INSULATION RESISTANCE: 1000 M  $\Omega$  min. @ 100 VDC  
 DIELECTRIC STRENGTH: 500 V AC (50-60 Hz)  
 OPERATING TEMPERATURE: -20°C to +70°C

## Materials

FRAME: Copper alloy, nickel plated  
 COVER: PA 46 (UL94V-0).  
 MOVABLE CONTACT: Copper alloy, nickel plated  
 TERMINALS: Copper alloy, gold plated  
 BRASS BALL: Brass, gold plated



| PART NUMBER        | PACKAGING  |
|--------------------|------------|
| <b>RB-220-07 R</b> | 500 pieces |



## Specifications

CONTACT ARRANGEMENT: SPST  
 SENSOR ANGLE: 15° to 90° scope inside, terminal to disconnection electric current  
 MINIMUM VOLTAGE: 1 VDC 10mA (resistive load)  
 MAXIMUM VOLTAGE: 5 VDC 1mA (resistive load)  
 OPERATING LIFE: 20,000 cycles (without load);  
 100,000 cycles with load  
 INSULATION RESISTANCE: 10 M  $\Omega$  min. @ 100 VDC  
 DIELECTRIC STRENGTH: 100 V AC (50-60Hz)  
 OPERATING TEMPERATURE: -10°C to +50°C

## Materials

HOUSING: PA  
 COVER: PA  
 BALL: Gold plated



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Detect

# RB Series Rolling Ball Sensor Switch

| PART NUMBER    | PACKAGING  |
|----------------|------------|
| <b>RB-435B</b> | 500 pieces |



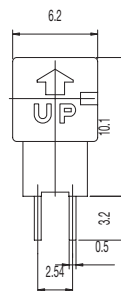
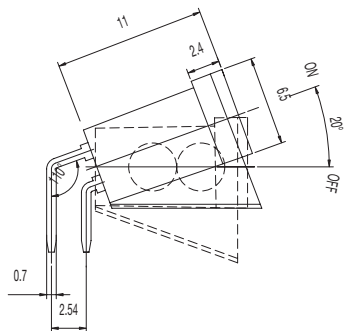
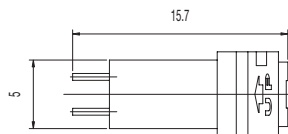
## Specifications

CONTACT ARRANGEMENT: SPDT  
 MINIMUM VOLTAGE: 1 VDC 10mA (resistive load)  
 MAXIMUM VOLTAGE: 5 VDC 1mA (resistive load)  
 OPERATING LIFE: 100,000 cycles  
 INITIAL CONTACT RESISTANCE: 5 Ω max.  
 INSULATION RESISTANCE: 1000 M Ω min. @ 500 VDC  
 DIELECTRIC STRENGTH: 500 V AC (50-60 Hz)  
 OPERATING TEMPERATURE: -20°C to +70°C

## Materials

HOUSING: PA (UL94V-0)  
 COVER: PA (UL94V-0)  
 MOVABLE CONTACT: Copper alloy, nickel plated  
 TERMINALS: Gold plated  
 BALL: Steel, gold plated

| PART NUMBER        | PACKAGING  |
|--------------------|------------|
| <b>RB-435X2-20</b> | 500 pieces |



PCB LAYOUT

## Specifications

CONTACT ARRANGEMENT: SPDT  
 SENSOR ANGLE: -20° to -30° scope inside, terminal to disconnection electric current  
 MINIMUM VOLTAGE: 1 VDC 10mA (resistive load)  
 MAXIMUM VOLTAGE: 5 VDC 1mA (resistive load)  
 OPERATING LIFE: 100,000 cycles  
 INSULATION RESISTANCE: 1000 M Ω min. @ 100 VDC  
 DIELECTRIC STRENGTH: 500 V AC (50-60 Hz)  
 OPERATING TEMPERATURE: -20°C to +70°C

## Materials

HOUSING: PBT (UL94V-0)  
 COVER: PBT (UL94V-0)  
 TERMINALS: Gold plated  
 BALL: Steel, gold plated



Detect

# RB Series Rolling Ball Sensor Switch



| PART NUMBER      | PACKAGING   |
|------------------|-------------|
| <b>RB-441-45</b> | 1500 pieces |

## Specifications

CONTACT ARRANGEMENT: SPDT

MAXIMUM VOLTAGE: 24 VDC 25mA (resistive load)

OPERATING LIFE: 100,000 cycles

INSULATION RESISTANCE: 1000 M  $\Omega$  min. @ 100 VDC

DIELECTRIC STRENGTH: 500 V AC (50-60 Hz)

OPERATING TEMPERATURE: -20°C to +70°C

## Materials

HOUSING: PBT (UL94V-0)

COVER: PBT (UL94V-0)

TERMINALS: Gold plated

BALL: Gold plated



PCB LAYOUT



Detect