

# MODEL RSB

## SAFETY STOP CONTROL WITH CABLE BREAK DETECTION



**The Model RSB is a heavy-duty safety control that provides a positive shut off of dangerous equipment in an emergency. A cable pulled by endangered personnel actuates it. The output contacts of the Model RS can control up to two separate circuits, one for machinery shutdown and one for an alarm. The Model RSB has the built-in advantage of cable break detection.**

### WHAT IT IS, AND WHAT IT DOES

*The Model RSB is designed to act as an emergency stop pull cord control on conveyors and other moving machinery that incorporates built-in broken cable detection. The Model RSB has extension springs, attached to opposite ends of the pull cable, which maintain the cable under constant tension. The RSB is mounted so that it is centered between the end springs. In this way, temperature changes, which cause cable length changes, are canceled out. The operating handle is held in the center vertical position with the internal switch in a normally closed condition. If the cable is pulled or the cable breaks, the handle rotates to release the switch lever. In this way, the alarm signal is generated for either condition. The operating handle must be manually reset back to the center position after the cause has been corrected.*

### RSB TECHNICAL INFORMATION

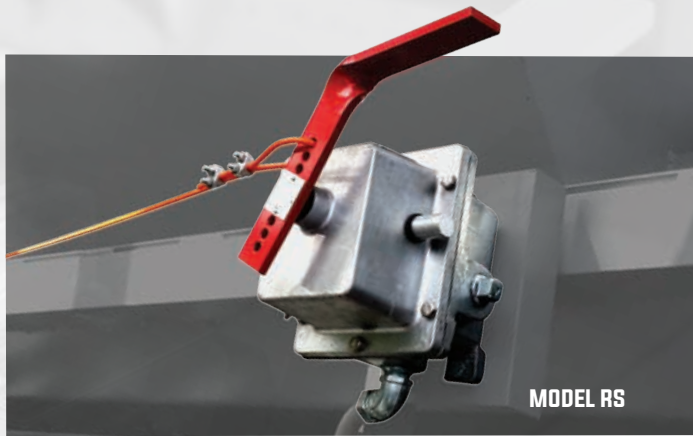
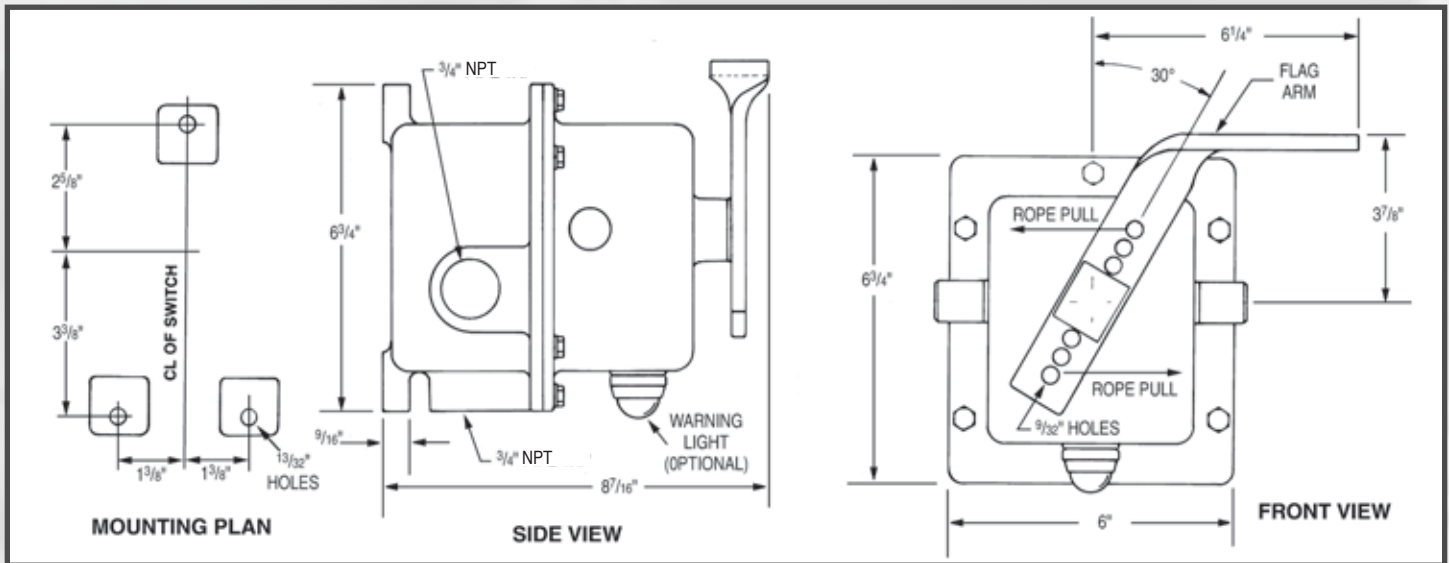
MODEL	DESCRIPTION
<b>RSB-1</b>	One SP/DT microswitch with cable break detection
<b>RSB-1X</b>	Explosion proof, One SP/DT & cable break detection
<b>RSB-2</b>	Two SP/DT switches with cable break detection
<b>RSB-2X</b>	Explosion proof, Two SP/DT & cable break detection
<b>RSB-5</b>	Two DP/DT microswitches with cable break detection
<b>RSB-5X</b>	Explosion proof, Two DP/DT with cable break detection

Note: Dual-Rated enclosures also available. Contact Sales for details.

### TECHNICAL SPECIFICATIONS

- The housing is cast aluminum, with optional epoxy or polyester powder coatings available.
- The unit can be actuated via a cable pull from either or both directions on every unit; in other words, the unit is “double ended”. Cable must extend from both sides of the RSB unit.
- The unit is mounted on the conveyor by drilling (3) 13/32” diameter holes.
- All units have (3) 3/4” NPT conduit openings.
- The standard units have dry, unpowered SP/DT microswitch(es) rated for 20A @ 120 VAC, 240VAC, and 480 VAC; 1/2 amp at 125 VDC and 1/4 amp at 250 VDC.
- Special spring tensioning kits included with each RSB unit provide stability due to temperature fluctuations, and ease of cable adjustment.
- The functional ambient temperature is -50° to 85° C [-58° to 185° F].
- The general purpose units are rated NEMA type 4/4X weatherproof and corrosion-resistant. Explosion proof units are rated NEMA type 7/9 for dust ignition proof and vapor explosion proof. Specifically, they are listed for Class I, Div. 1, Groups C and D; and Class II, Div. 1, Groups E, F and G. The dual-rated “D” units are rated NEMA type 4X weatherproof and NEMA type 9 dust ignition proof. Specifically, they are listed for Class II, Groups E, F and G.
- The general purpose controls meet or exceed IP65.
- UL listed and CSA listed.

# MODEL RS/RSB DIMENSIONAL INFORMATION



**Standard Construction** - Rubber gaskets seal unit for outside applications listed by UL for NEMA 4 dust-tight and rain tight construction. Applies to general purpose units.

**Housing** - Cast aluminum. Epoxy coating available.

**Conduit Opening** - 3/4" NPT standard. 1" NPT optional (non UL). All units have three conduit openings.

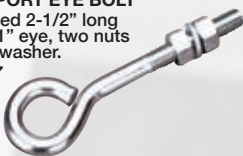
**Actuating Arm** - Red powder-coated steel handle with stainless steel shaft.

**Internal Cam and Wear Plate** - Hardened steel.

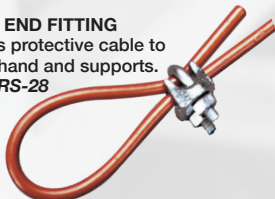
**External Hardware** - Stainless steel.

**Switches** - SP/DT microswitches. Rated 20A @ 120 VAC, 240VAC, and 480 VAC; 1/2 amp at 125 VDC and 1/4 amp at 250 VDC. Switches may be wired for single throw operation, either normally open or normally closed as required. DP/DT (15A) microswitches also available.

**CABLE SUPPORT EYE BOLT**  
1/2" x 6" plated 2-1/2" long  
N.C. thread, 1" eye, two nuts  
and one lockwasher.  
*Item # RS-27*



**CABLE END FITTING**  
Secures protective cable to  
switch hand and supports.  
*Item # RS-28*



**SAFETY CABLE**  
3/32" x 7x7 preformed,  
galvanized aircraft cable.  
Protective coating in either  
orange coated vinyl or nylon.  
3/16" O.D.  
*Item # RS-25 (vinyl)*  
*RS-26 (nylon)*



**CONDUIT PLUG**  
3/4" metal, socket  
head conduit plug.  
*Item # RS-29*



## RS & RSB INSTALLATION INSTRUCTIONS

1. The controls should be mounted on a flat surface using the three mounting holes on the bottom half of the housing. The holes are designed for 3/8" bolts.
2. Each unit can cover a maximum of 200' of conveyor — 100' in each direction. Safety considerations dictate that not more than 100' of cable be attached on each side. More cable might result in too much slack, delaying actuation.
3. The eyebolts supporting the cable should be placed at intervals from 8-10'. Care must be taken that the cable does not become too slack. However, if the cable is too tight, false actuation of the switch might occur.
4. The Model RS control is designed for pilot duty. The control circuit should be wired through the motor starter circuit of the conveyor or other equipment to be controlled. Do not wire the unit directly into a heavy duty motor circuit.
5. The unit should be tested after installation by actuation of the cable. The protected equipment should stop and alarms should sound as required with a minimum of effort on the cable. Cable tension can be adjusted if necessary by changing the location of the cable on the handle.



RS-30 BRACKET for mounting the Model RS stop switch to the conveyor stringer at an idler.