

# MODEL TA

## BELT ALIGNMENT CONTROL



The model TA Conveyor Belt Alignment Control protects conveyor belts from damage due to belt misalignment or runoff. These controls are used in pairs with the control placed on each side of the conveyor belt. Each unit can be equipped with two microswitches to produce signals indicating belt misalignment at two deviation points. The first signal point could indicate small belt deviation by sounding an alarm. The second signal point could guard against extreme belt runoff by shutting down the conveyor.

Each control consists of an aluminum housing with a red powder-coated roller. The roller is adjustable up to 90° in both directions and is positioned approximately 1" from the conveyor belt. The control actuation points are adjustable from 0° to 45° by a simple change of the actuating cam(s). The model TA can be furnished with general purpose or explosion proof construction. Epoxy coated cast aluminum housing available upon request.

### NUMBER OF UNITS RECOMMENDED

Not less than four alignment switches shall be furnished on each conveyor. On each side of the belt near the head and tail pulleys. For conveyors greater than 1,500 feet (457 meters) long, an additional four alignment switches shall be provided evenly spaced, one on each side of the carrying and return belt.

### INSTALLATION INSTRUCTIONS

Model TA units are always used in pairs with one placed on each side of the conveyor belt, usually near the head end of the conveyor. They may also be placed at the tail pulley and at selected points along the conveyor.

The microswitch can be wired to give warning signals or it can be connected directly into the motor starter circuit to stop a conveyor.

The unit should be mounted on supports so that the roller is positioned in a vertical direction to intercept the conveyor belt at its midpoint. The roller is 9-3/4" high. The point of interception would be at the 4-7/8" point. Units should not be mounted too close to the belt because false signals would result. In most applications, the units could be mounted about 1" from the belt, eliminating false signals but protecting the belt against wide deviations.

### MODEL TA TECHNICAL INFORMATION

MODEL	DESCRIPTION
TA-1	One SP/DT microswitch
TA-1X	Explosion proof, One SP/DT microswitch
TA-2	Two SP/DT microswitches (individually adjustable)
TA-2X	Explosion proof, Two SP/DT microswitches
TA-5	Two DP/DT microswitches
TA-5X	Explosion proof, Two DP/DT microswitches

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

**MANUAL RESET:** A positive lock-out model with manual reset is available.

**SWITCHES:** SP/DT microswitches. Rated 20 amp at 125, 250, or 480 VAC, 1/2 Amp 125 VDC; 1/4 Amp 250 VDC.

Switches may be wired for single throw operation, either normally open or normally closed as required. DP/DT microswitch also available.

**STANDARD CONSTRUCTION:** Rubber gaskets seal units against dust and rain for NEMA 4, 4X outdoor applications. Applies to units TA-1 and TA-2. NEMA 7/9 units also available.

**HOUSING:** Aluminum, Polyester or Epoxy coating available.

**CONDUIT OPENING:** One 3/4" NPT standard opening.

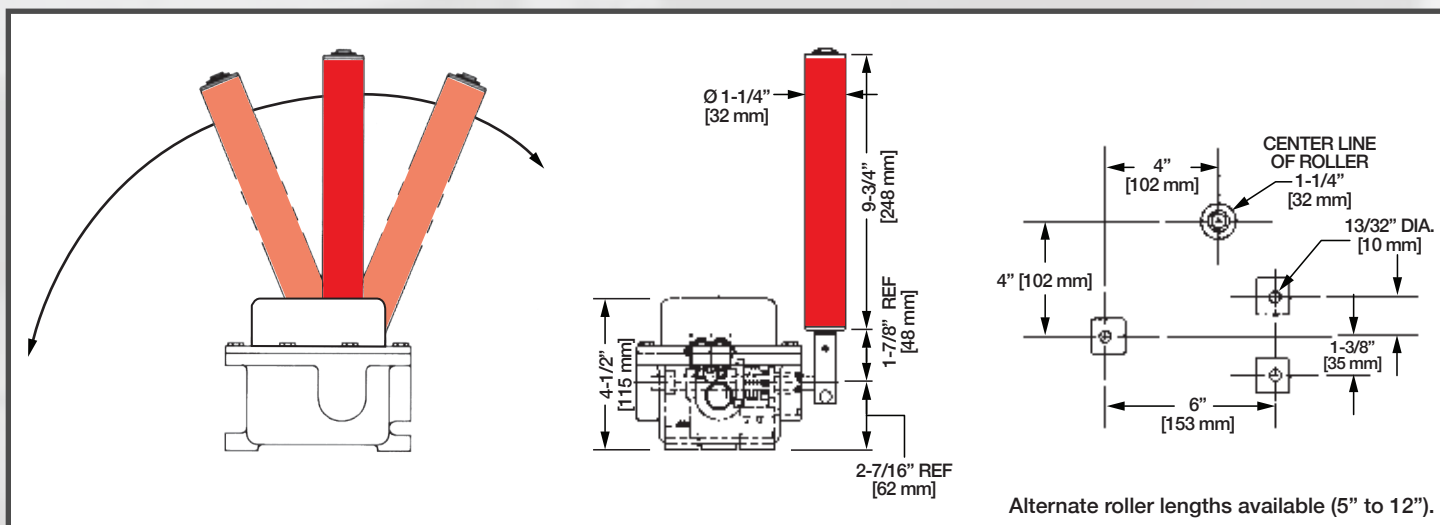
**ACTUATING ARM:** Red powder-coated steel roller with stainless steel shaft.

**EXTERNAL HARDWARE:** Stainless steel.

**OPERATING TEMPERATURE RANGE:** -40°F to +150°F.

**CERTIFICATION:** cULus Listed.

# MODEL TA DIMENSIONAL INFORMATION



# MODEL TPS

## TRIPPER POSITION CONTROL

### MODEL TPS TECHNICAL INFORMATION

### WHAT IT IS

The Model TA-TPS is a tripper position switch, which is a heavy duty limit switch commonly used to aid in positioning of the "tripper" on a conveyor with multiple discharge points or discharge chutes. The output contacts of the Model TA-TPS can control up to two separate circuits, one for machinery shutdown and one for an alarm.

The Model TA-TPS is relatively inexpensive protection that provides benefit by saving the time, money, and labor associated with bulk material transfer.

- The housing is cast aluminum, with optional epoxy or polyester powder coatings available. The roller is a heavy duty white acetal material of 3" diameter.
- The unit is mounted on the conveyor by drilling (3) 13/32" diameter holes.
- General purpose (weatherproof) units and explosion proof units have (1) 3/4" NPT conduit opening.
- The units have a dry, unpowered microswitch(es) rated for 20A @ 120 VAC, 240 VAC, and 480 VAC, 1/2 Amp 125 VDC; 1/4 Amp 250 VDC.

MODEL	DESCRIPTION
TA-1-TPS	General Purpose, 1 SP/DT Switch
TA-1X-TPS	Explosion Proof*, 1 SP/DT Switch
TA-2-TPS	General Purpose, 2 SP/DT Switches
TA-2X-TPS	Explosion Proof*, 2 SP/DT Switches
TA-2D-TPS	Special NEMA 4, 4X & NEMA 9: Class II Groups E,F&G Enclosure, 2 SP/DT Switches
TA-5-TPS	General Purpose, 2 DP/DT Switches
TA-5X-TPS	Explosion Proof*, 2 DP/DT Switches
TA-5D-TPS	Special NEMA 4, 4X & NEMA 9: Class II Groups E,F&G Enclosure, 2 SP/DT Switches

\* NEMA 7/9: Class I, Div. 1, Groups C & D; Class II, Div. 1, Groups E, F & G

- The roller arm can move up to 90 degrees in either direction. Roller is spring loaded to automatically reset itself.
- The operating temperature range is -40°F (-40°C) to 150°F (65°C).
- The general purpose units are designed NEMA Type 4/4X weatherproof and corrosion-resistant and NEMA Type 5 dust-tight. Explosion proof units are designed NEMA Type 7/9 for dust ignition proof and vapor explosion proof. The dual-rated "D" units are designed NEMA Type 4X weatherproof and NEMA Type 9 dust ignition proof.
- The general purpose controls are IP65 compliant.
- Certification: cULus listed.

