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Eckels-Bilt *D&E*-Tracker



Tracking

The DE-Tracker controls the belt using a linear actuator to skew a set of rollers to control a belt running between a set of two edge sensors. Typically the sensors are photo eyes or proximity switches. When the belt is between the two sensors (in the dead band), the linear actuator is inactive. When one of the sensors detects one edge of the belt, the actuator will extend or retract, skewing the rollers, until the belt is no longer detected by the edge sensor. It will then remain in that position until one of the edge sensors is activated again.

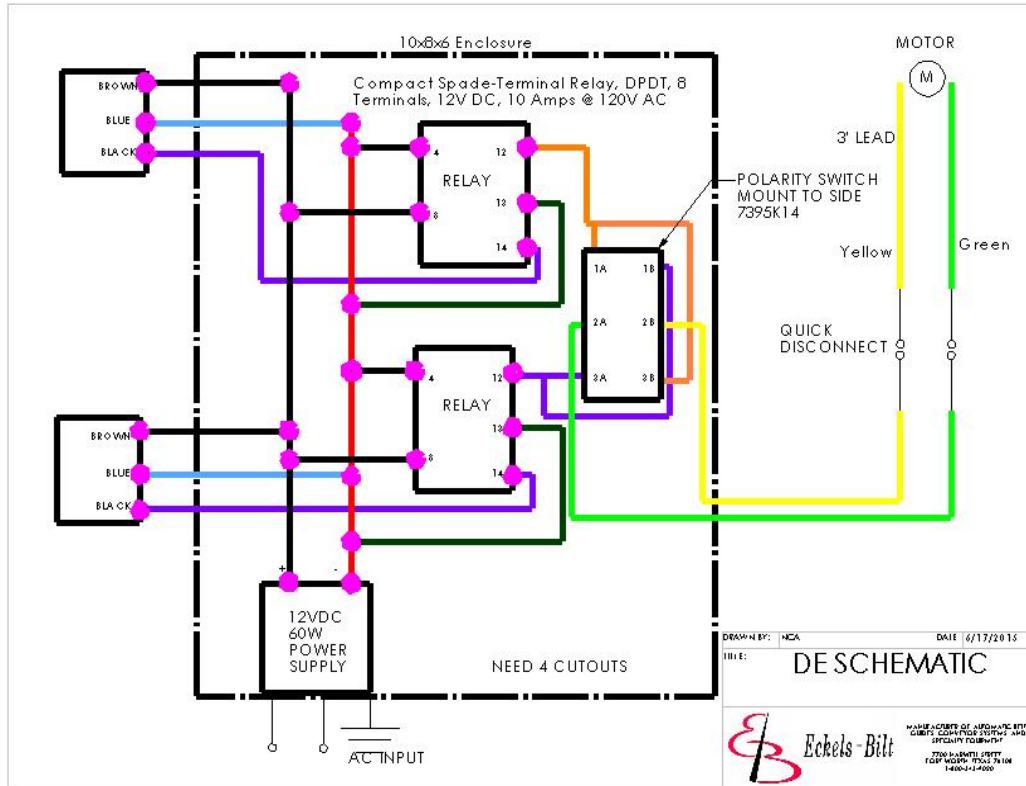
Installation Instructions

1. Remove the rollers from the belt tracker.
2. **MOUNTING THE ACTUATOR SIDE:** Clamp the cylinder side of the belt tracker to the conveyor frame at the proper location. Make certain it is level and squared with the frame. Mark the base plate mounting holes, drill them, and mount the cylinder side with 3/8" bolts.
3. **MOUNTING THE STATIONARY SIDE BRACKET:** Re-measure the distance and height of the mounting holes used to mount the actuator side. Mark an equal distance and height on the opposite side of the conveyor for the stationary side mounting holes. Drill the holes and mount the bracket with 3/8" bolts.
4. Remove the stationary side plate from the bracket. Place the cylinder side end of the rollers into the holes on the cylinder slide plate. Position the stationary side plate onto the other end of the roller, and then mount the stationary side plate to the stationary side bracket with the bolts centered in the slots. Lock rollers in place with retainer bars.
5. Manually center the belt on the conveyor.
6. Supply 110VAC to the power supply in the enclosure as shown in the electrical schematic.
7. Mount one sensor on the actuator side of the conveyor frame on either side of the belt tracker. With the belt centered on the conveyor, adjust the sensor until it activates. Back the sensor away from the belt until it deactivates. Next, move the sensor away from the belt 1/8".



8. Mount the other sensor on the stationary side of the conveyor frame on either side of the belt tracker. With the belt centered on the conveyor, adjust the sensor until it activates. Back the sensor away from the belt until it deactivates. Next, move the sensor away from the belt 1/8".
9. Make sure that all the rollers on your conveyor are squared with the conveyor frames.
10. The enclosure has a switch labeled Polarity. This is used to switch the direction the actuator moves when one of the sensors is activated.
 - a. With the belt movement through the Automatic Belt Tracker from left to right and the sensor on the actuator side activated, **THE ACTUATOR SHOULD EXTEND.**
 - b. With the belt movement through the Automatic Belt Tracker from right to left and the sensor on the actuator side activated, **THE ACTUATOR SHOULD RETRACT**

Schematic



Belt Edge Detection

Test Photo eye Functionality

1. Place object in front of edge sensors to see if there is any response. When the sensor detects something, a red light should illuminate.
2. If no red light illuminates, check the connections of the edge sensor with the electrical schematic.
3. If the wiring is correct, replace the edge sensor.

Test Paddle/ Proximity Switch Functionality

1. As the belt contacts the paddle a rod above a proximity switch will move over the switch. Adjust the proximity switch so that it activates when the paddle is compressed.
2. IF the proximity switch is not activating: Place a metal object in front of edge sensors to see if there is any response. When the sensor detects something, a yellow light should illuminate.
3. IF yellow red light illuminates, check the connections of the edge sensor with the electrical schematic.
4. IF the wiring is correct, replace the edge sensor.

