Protect your valuable conveyor belt from severe damage caused by belt misalignment, prevent costly downtime and increase production with Conveyor Components Company’s Model VA belt alignment control. Designed for use on bucket elevators, the Model VA ensures that your belt is tracking properly.

Normally installed in pairs on each side of the conveyor belt near the head pulley and/or the tail pulley, these heavy-duty controls consist of a conveyor roller with sealed bearings, four bar linkage and a double pole/double throw microswitch. The roller detects any belt run-off and will trigger the first pole of the microswitch to sound a warning alarm, illuminate an indicator light, or stop the conveyor completely when the vertical belt strays beyond 10° from horizontal. The second pole is triggered when the belt strays 25° from horizontal and can be wired to stop the conveyor motor. To eliminate false signals the controls should be mounted about one inch away from the belt.

How It Operates

The main components of this Belt Alignment Control are a conveyor roller with sealed bearings, a four bar linkage, and the microswitch. The control has double pole/double throw circuitry. The four bar linkage connects the roller’s pivot shaft to the switch actuator. The roller is held into position by roll pins and set screws.

When the roller is displaced 15°, the first pole of the switch is triggered. This pole can be wired to sound a warning alarm, light an indicator light, or stop the conveyor. The second pole is triggered when the belt strays 25° from horizontal and can be wired to stop the conveyor motor. Drawing “A” shows a range of roller orientations and the allowable travel for each stage.
**INSTALLATION**

The Belt Alignment Controls should be mounted in a location that allows them to be directly across from each other. This will give the most accurate alignment reading. See Drawing "B" for an illustration.

**PREPARING THE CHUTE:**
1. The Vertical Bucket Elevator Control is mounted directly onto the chute.
2. Locate the centerline of the conveyor belt on the return side of the conveyor system. Project this point onto the chute walls.
3. Use the supplied template to mark off all hole locations.

**MOUNTING THE UNIT:**
1. Measure distance between chute and conveyor belt edge.
2. Adjust conveyor roller to rest about 1/4" - 1/2" from conveyor belt edge.
3. With the housing gasket in place, line up the control's holes with the holes on the chute.
4. Place the 1/4" - 20 bolts through the holes and tighten with wrench.
5. Wire according to schematic.

**SPECIFICATIONS**

**EXPLOSION PROOF MICROSWITCH**
- Meets NEMA Standards: 1, 3, 4, 6, 7, 9 and 13
- Class I, Div. 1, Groups B, C and D
- Class II, Div. 1, Groups E, F and G
- UL Listed and CSA Listed

**GENERAL PURPOSE MICROSWITCH**
- Meets NEMA standards: 1, 3, 4, 6 and 13
- UL Listed and CSA Listed

**ELECTRICAL OUTPUT**
- Double Pole/Double Throw
- 10 Amp - 120, 240, 480 VAC
- 0.8 Amp - 120 VDC
- 0.4 Amp - 240 VDC
- Conduit Connection: 3/4” NPT

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**TABLE:**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DESCRIPTION</th>
<th>SHPG. WT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>VA</td>
<td>General Purpose NEMA 4 microswitch</td>
<td>10 lbs.</td>
</tr>
<tr>
<td>VA-X</td>
<td>Explosion Proof NEMA 7-9 microswitch</td>
<td>10 lbs.</td>
</tr>
</tbody>
</table>

**DRAWING “B”**

**WIRING SCHEMATIC**

**SEQUENCE**

3 4 8 7
2 1 5 6

Sequential. Pole 1 operates before Pole 2.