# ATEX Certified Tilt Switches for Hazardous Locations

## Tilt Switch Probes

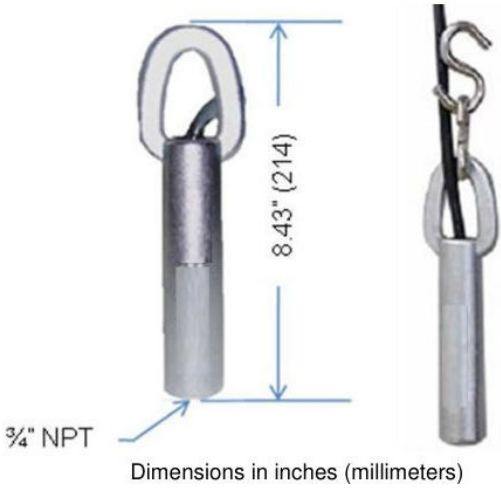
| Model | Enclosure | Type | Temp. Rating | Cable |
|---|---|---|---|---|
| SL23-8EX | Cast Iron | Mercury | -34 °F to 176 °F | 26 ft. (8 m) |
| SL20-8E-NMX | Cast Iron | Non-mercury | -34 °F to 176 °F | 26 ft. (8 m) |
| SL24-8EX | Stainless Steel | Mercury | -34 °F to 176 °F | 26 ft. (8 m) |
| SL24-8E-NMX | Stainless Steel | Non-mercury | -34 °F to 176 °F | 26 ft. (8 m) |

- **Supply:** Only supplied via Control Unit
- **Protection Class:** IP68/NEMA 4X

- **Hazardous Area Rating:**

  II 1D Ex ma/ta IIIC T80°C/180°C, IP68
  Class II, Div 1 & 2, Group E, F & G

- **Drawings and Product Pictures**




SL20 and SL23 models




SL24 models

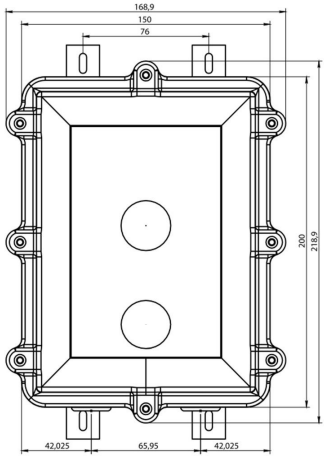
## Tilt Switch Control Unit

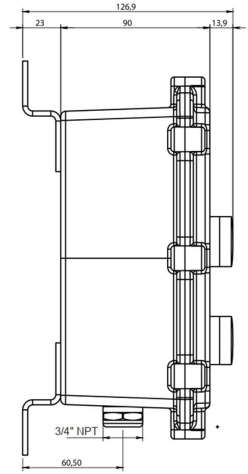
- **Model:** SL30-115X
- **Enclosure:** Aluminum Die-Cast
- **Temperature Rating:** -13 °F to 122 °F
- **Supply:** 110/220 VAC 50/60 Hz
- **Protection Class:** IP65/NEMA 4X
- **Alarm Output:** 1 x SPDT - 110/220 VAC 10 A - 30 VDC 7 A
- **Fault Output:** 1 SPDT - 110/220 VAC 2 A - 24 VDC 2 A
- **Delay Options:** 1, 2, 4 or 6 seconds (minimum is 2 sec. for non-mercury probes)
- **Cable Entry:** 3/4" NPT (optional 1/2" NPT)
- **Indicators:** Green (normal) and Red (alarm/fault) lights

- **Hazardous Area Rating:**

  II 2D Ex tb IIIC T80°C/180°C, IP65
  Class II, Div 1 & 2, Group E, F & G

- **Drawings and Product Pictures**

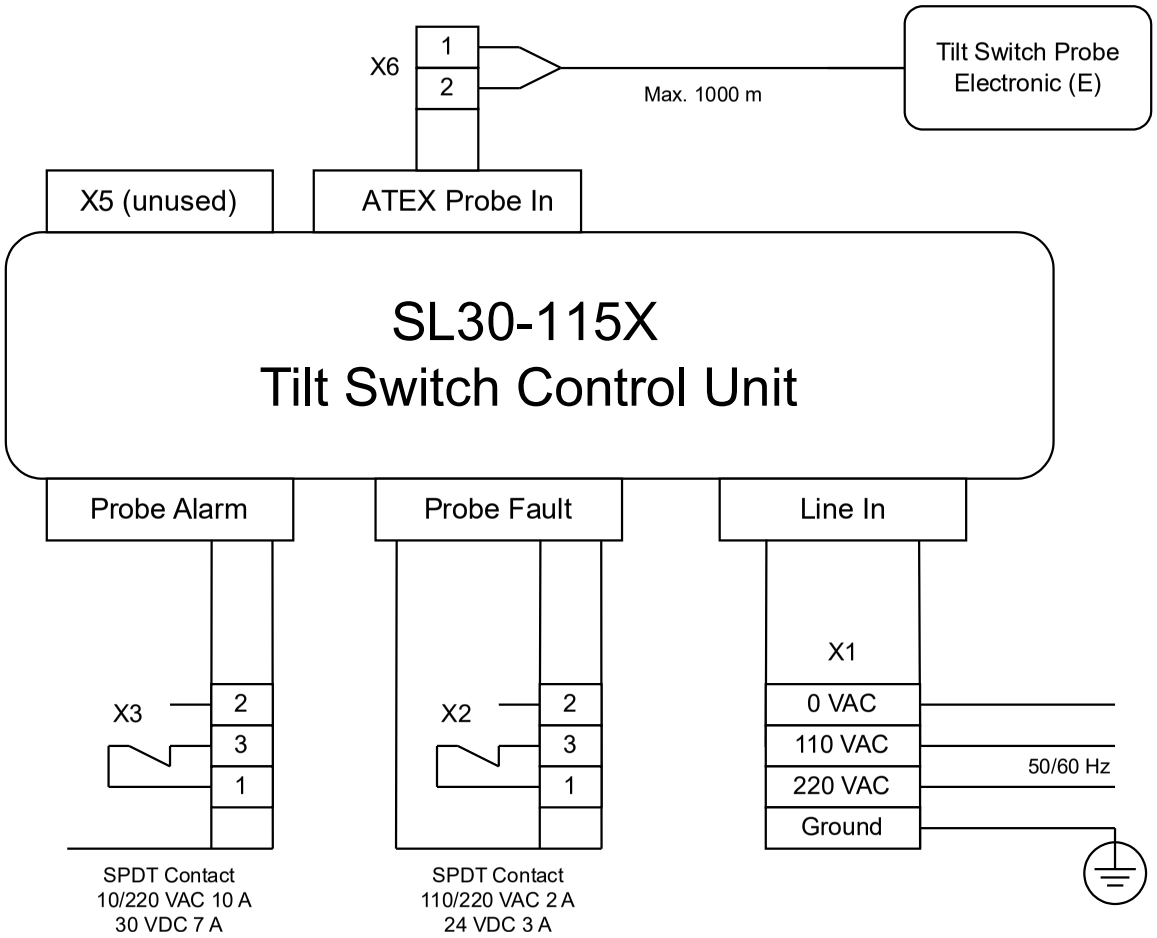





Dimensions are in mm (milimeters).

Wiring Diagram




BulkPro® SYSTEMS L.L.C.

# Installation

## Tilt Switch Probe **Installation and Wiring**

Tilt Switches must be installed by qualified personnel only, in compliance with safety norms. Before wiring, the power supply to the switch must be interrupted. After wiring, test the installation according to safety norms.

- Tilt Switch must be suspended from a vibration-free rigid support.
- Tilt Switch must be installed in a vertical position and must be allowed free movement.
- Tilt Switch must be out of falling material's path.
- Select the location of the Tilt Switch according to your application. Choosing right position is important to avoid burying the Tilt Switch under bulk material.
- Prefer a shielded installation for tough working conditions to protect the cable and probe from impacts.
- For coarse material, prefer probe extensions to prevent the Tilt Switch being buried.
- After fixing the Tilt Switch to its position, connect the wires to Bulk Pro Systems Control Panel or your existing control panel. The Switch is normally closed in vertical position, will open when tripped.
- Control unit can be powered with 110 or 220 VAC. Connect the live wire to 110 VAC or 220 VAC labeled terminal ensuring that it is correct. Connect the neutral wire to "0 VAC" terminal. Connect the grounding wire to "Ground" terminal.
- Connect Bulk Pro ATEX probes to "E. Probe" Terminals (X6)

Select the SW2-6 DIP Switch to down position (OFF).

- Connect to output and fault terminals. Behaviour of outputs change with SW2-5 DIP Switch. Follow this manual to select it according to your application. Fault terminals are only used with electronic tilt switches.