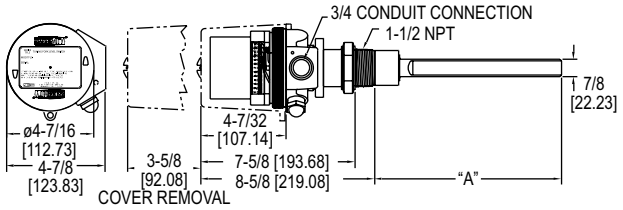
Dwyer

SERIES TFLS

TUNING FORK LEVEL SWITCH

Perfect for Sensing Low Bulk Density or Low Dielectric Materials



Extension Length	DIM "A"
None	9-1/4 (234.95)
6 in	15-7/8 (403.23)
12 in	21-7/8 (555.63)
18 in	27-7/8 (708.03)
24 in	33-7/8 (860.43)
36 in	45-7/8 (1165.23)
48 in	57-7/8 (1470.03)

The **Series TFLS Tuning Fork Level Switch** is ideal for level control of powders and fine grained solids, especially those with a low bulk density. The TFLS incorporates a piezoelectric crystal that vibrates the fork at its natural frequency, when contact material is present it dampens the vibrations and the switch changes state.

BENEFITS/FEATURES

- Status indication with external LED switch indicator, and internal indicators for normal and alarm status
- No calibration required for quick and easy installation
- No mechanical moving parts with no routine maintenance required
- Unaffected by the dielectric constant of the sensed material, making it superior to a capacitance level switch for applications where the dielectric constant is too low, where there is more than one material being used in one vessel, and when material moisture content can change
- Vibrating fork design is ideal for low bulk density and low dielectric constant products, detecting products down to 1.8 lb/ft^3 (30 g/l)
- Ideal for applications where the bulk density is too low for a rotating paddle level switch
- Adjustable sensitivity can be set to ignore lighter bulk density products and only detect heavier products, such as sand, gravel, or polyester chips in water
- Unit is not affected by vibration from conveying systems, motors, or the movement of material
- Mounted in any position and is available with factory built extensions for mounting on the top of the storage vessel
- Failsafe setting with output switch that can be set for NO or NC condition on loss of power
- Time delay prevents false alarms from material surges
- Universal power supply yields one model which works with 90-265 VAC and 24 VDC

APPLICATIONS

- Pulp and paper processing
- Food and beverage
- Lime, styrofoam, tobacco, dry cereals, sugar, animal feed, milk powder, flour, insulation, cement, paper shavings, plastic granules, sawdust, carbon black, light fibers, detergent powders, dyes, chalk, silica, sand, wood chips

SPECIFICATIONS

Service: Dry powder or bulk materials compatible with wetted materials. Can detect bulk materials submerged in liquid.
Sensitivity: Minimum bulk density of 1.8 lb/ft^3 (30 g/l), max particle size 0.4˝ (10 mm).
Wetted Materials: 316 SS.
Temperature Limits: Ambient: -4 to 140˚F (-20 to 60°C); Process: -4 to 176°F (-20 to 80°C).
Pressure Limit: 145 psig (10 bar).
Power Requirement: 90-265 VAC, 50/60 Hz; 24 VDC.
Power Consumption: 4 VA.
Enclosure: Aluminum, powder coated.
Enclosure Rating: Weatherproof, NEMA 4X (IP66).
Switch Type: SPDT.
Electrical Rating: 5 A @ 230 VAC.
Electric Connections: Screw terminals.
Conduit Connection: 3/4˝ female NPT.
Process Connection: 1-1/2˝ male NPT.
Indication Lights: External: Red LED; Internal: Green and red LED's.
Sensing Delay: (Max) covered probe: 2 s; Uncovered probe: 3 to 7 s.
Time Delay: Separate settings for covering and uncovering the probe. Adjustable from 2 to 20 s.
Weight: 5.5 lb (2.5 kg).

MODEL CHART	
Model	**Description**
TFLS-W11SR1	Tuning fork level switch
Note: Contact factory for fork extension options in stainless steel.	