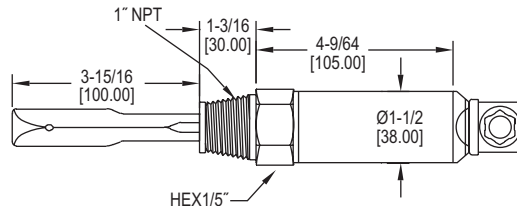


# MINI TUNING FORK LEVEL SWITCH

Compact, Cost Effective, DIN Connection



The **Model CTF Mini Tuning Fork Level Switch** is an ideal choice for level control of powders. The CTF 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. This series offers a PNP or NPN output.

### FEATURES/BENEFITS

- DIN connection and compact size allows for application in places a larger tuning fork level switch may not be suitable, providing great versatility
- 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
- Ideal for applications where the bulk density is too low for a rotating paddle level switch

### APPLICATIONS

- Chemical processing
- Pulp and paper processing
- Mining
- Food and beverage

### SPECIFICATIONS

**Service:** Dry powder compatible with wetted materials.  
**Sensitivity:** Min. bulk solid density: 4.4 lb/ft<sup>3</sup> (70 g/l).  
**Wetted Materials:** Tuning Fork: 316 L SS; Process connection: 304 SS.  
**Temperature Limits:** Ambient: -40 to 140°F (-40 to 60°C); Process: -40 to 212°F (-40 to 100°C).  
**Pressure Limit:** 600 psi (40 bar).  
**Power Requirement:** 12-55 VDC.  
**Power Consumption:** 10 mA @ 12-24 VDC; 0.5 W (max.).  
**Enclosure:** Aluminum, painted.

**Enclosure Rating:** IP65.  
**Switch Type:** 3-wire PNP or NPN output.  
**Electrical Rating:** 350 mA (max) @ 12 to 55 VDC.  
**Conduit Connection:** Valve plug DIN 43650.  
**Process Connections:** 1" male NPT.  
**Indication Lights:** External red LED.  
**Sensing Delay:** Max. covered probe: 1 to 3 s.; Uncovered probe: 1 to 3 s.  
**Weight:** 2.2 lb (1.0 kg).  
**Agency Approvals:** CE.

### MODEL CHART

Model	Description
CTF-02	Mini tuning fork level switch with NPN output
CTF-03	Mini tuning fork level switch with PNP output