

# TFS SERIES

# Operating Instructions



## 1. Overview

The TFS model tuning fork utilizes circuitry that excites the crystal to generate a frequency between the two forks.

When the forks are immersed into media the vibration frequency of the forks changes. This change is detected by the electronic circuit and outputs a switch value, so as to realize the upper and lower limit alarm a

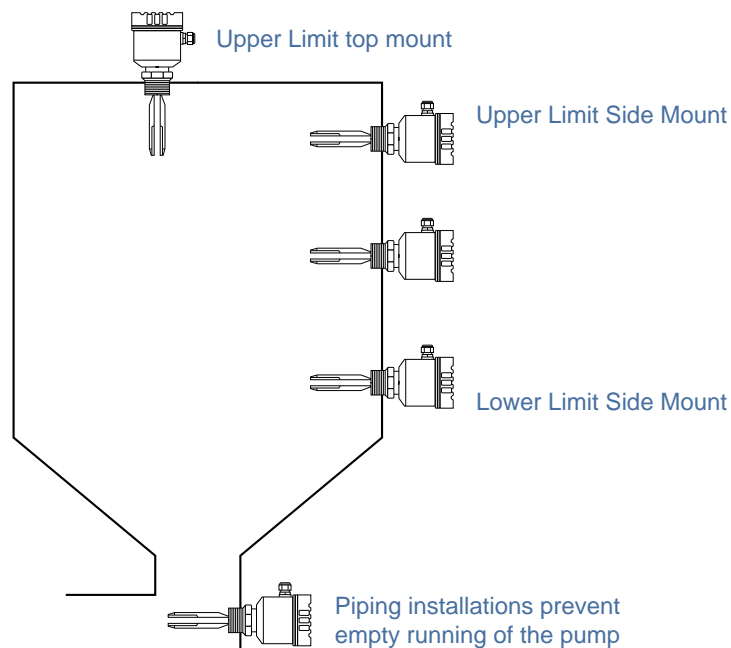
The TFS is an excellent choice when dealing with media that contains particulate, heavy foam, turbulence or has scaling properties.

## 2. Features

**Strong Adaptability:** the different electrical parameters and density of the tested material will not affect the measurement.

Suitable for Harsh conditions such as scaling, agitation, turbulence, bubbles, vibration, medium viscosity, high temperature, and high pressure have no effect on detection.

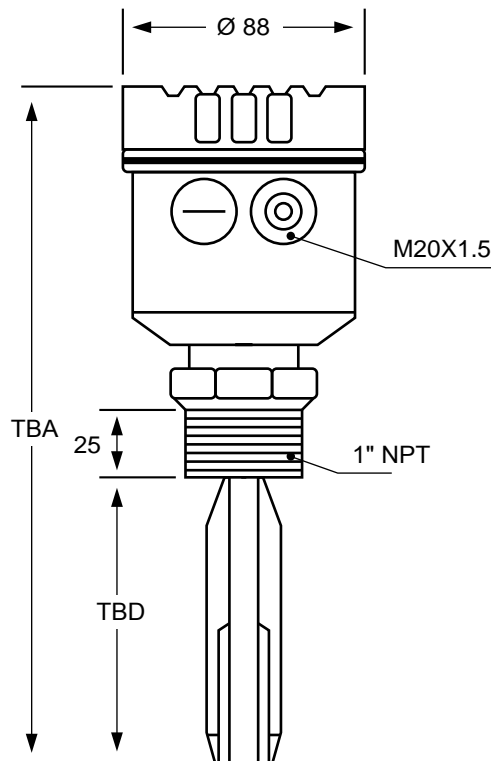
## 3. Installation



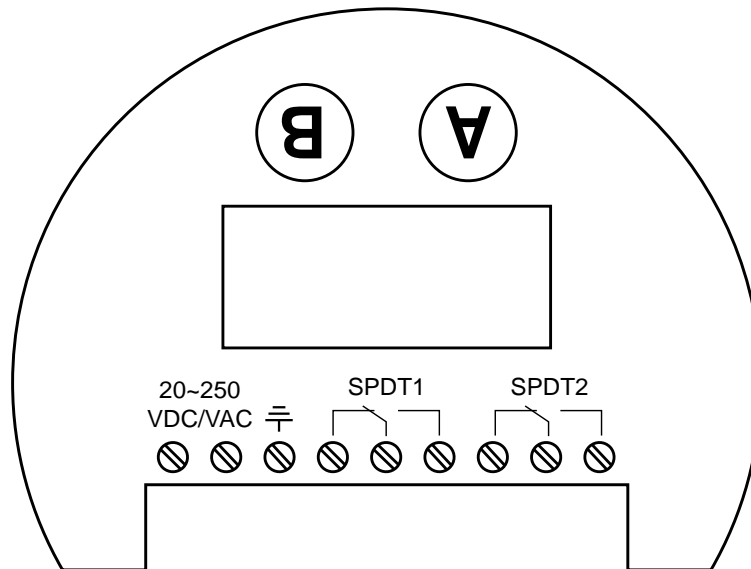
## 4. Specifications

Power Supply	20-250VDC/VAC
Working Temperature	Body: -40~180°C    Instrument: -30~70°C
Working Pressure	P < 2Mpa
Medium Density	minimum 0.6g/cm3
Fork Length	4"   100mm (other lengths customizable)
Output	Relay contact output
Contact Capacity	5A 220VAC
Explosion-Proof	(Intrinsic Safe) ExialICT6Ga
Protection Grade	IP66
Power Consumption	1W
Connector Installation	1"NPT Other interfaces customizable
Electrical Interface	M20x1.5
Overall Dimensions	See diagram below (standard)

## 5. Dimensions



## 6. Wiring



## 7. Programming

### Power On

When powered on the main screen shows the operating frequency.

1. **Relay Delay Setting:** Press & Hold A button for 5 sec - the display will show 1 - 00

Short Press the B button to increase the number

Short Press the A button to shift units

2. **Press & Hold A (5 sec) to Enter Sensitivity Screen**

**Sensitivity Setting:** The display will show 2 - 00

Short press the B button to increase the number

Short Press the A button to shift. **Note:** The greater the number, the slower the relay response time

3. **Press & Hold A (5 sec) to Enter Relay Action N/O N/C**

**Relay Action Setting:** 3 - 00 } 00 = Normally Open 01 = Normally Closed

4. **Press and hold the B button for 5 seconds to exit the operation menu.**

5. **Calibration Operation:**

Immerse the tuning fork into the material, **press the A key & B key** simultaneously for 5 seconds, the display will show ---, indicating that the automatic calibration state is active.

**Note:** The calibration will be completed after 5 seconds