

## | TSF40 SERIES

### COMPACT INTERNAL MOUNT WITH TEMPERATURE SENSING

The TSF40 series is a compact internal fitting device, with a high specification thermistor so capable of sensing both liquid level and temperature. Mounting of this series requires access to the inside of the tank.



Typical applications include vending machines, commercial washing machines and evaporator units.

They are manufactured in a variety of materials with a choice of gasket materials, to suit most commonly used liquids.

The switch action may be reversed by rotating the device through 180°.

Available with flying lead connection.

#### Features

- Compact design with temperature sensing
- Available in Nylon, Polypropylene or PPS
- 25VA & 100VA versions
- WRAS Pending versions

## ● SPECIFICATIONS

### Technical

|                                | TSF43 | TSF44                         | TSF48         | TSF46                           |
|--------------------------------|-------|-------------------------------|---------------|---------------------------------|
| <b>Material</b>                | Nylon | Polypropylene<br>WRAS Pending | Polypropylene | Polyphenylene<br>Sulphide (PPS) |
| <b>Colour</b>                  | Black | Opaque                        | White         | Grey                            |
| <b>Temp. Range</b>             | °C    | -20/+75                       | -20/+100      | -10/+120*                       |
|                                | °F    | -4/+167                       | -4/+212       | +14/+248*                       |
| <b>Min. Fluid SG</b>           | 0.85  | 0.85                          | 0.85          | 0.85                            |
| <b>Must Close Level (SG=1)</b> | 7mm   | 8mm                           | 8mm           | 9mm                             |
| <b>Must Open Level (SG=1)</b>  | 20mm  | 20mm                          | 20mm          | 24mm                            |

\*Maximum temperature requires ETFE cable to be specified.

### Electrical

|                                 |    | 25W<br>(Y code) | 100W<br>(H code) |
|---------------------------------|----|-----------------|------------------|
| <b>Contact Form</b>             |    | N/O (N/C)       | N/O (N/C)        |
| <b>Switching Power Max</b>      | VA | 25              | 100              |
| <b>Switching Voltage AC Max</b> | V  | 240             | 300              |
| <b>Switching Voltage DC Max</b> | V  | 120             | 300              |
| <b>Switching Current Max</b>    | A  | 0.6             | 1                |

All ratings are for resistive load only.

### Thermistor

|                                       |                                |
|---------------------------------------|--------------------------------|
| <b>Nominal Temperature Resistance</b> | 10k Ohm at 25°C                |
| <b>Resistance Tolerance</b>           | +/- 1%(25°C) to +/-4.3%(120°C) |
| <b>Operating Temperature Range</b>    | -20°C to +120°C                |
| <b>Temperature Sensing Accuracy</b>   | +/-0.2°C (0°C to +70°C)        |
| <b>Beta Value</b>                     | 3892K (0/50°C)                 |
| <b>Response Time</b>                  | <1 sec                         |
| <b>Dissipation Constant</b>           | 0.75mW/K                       |

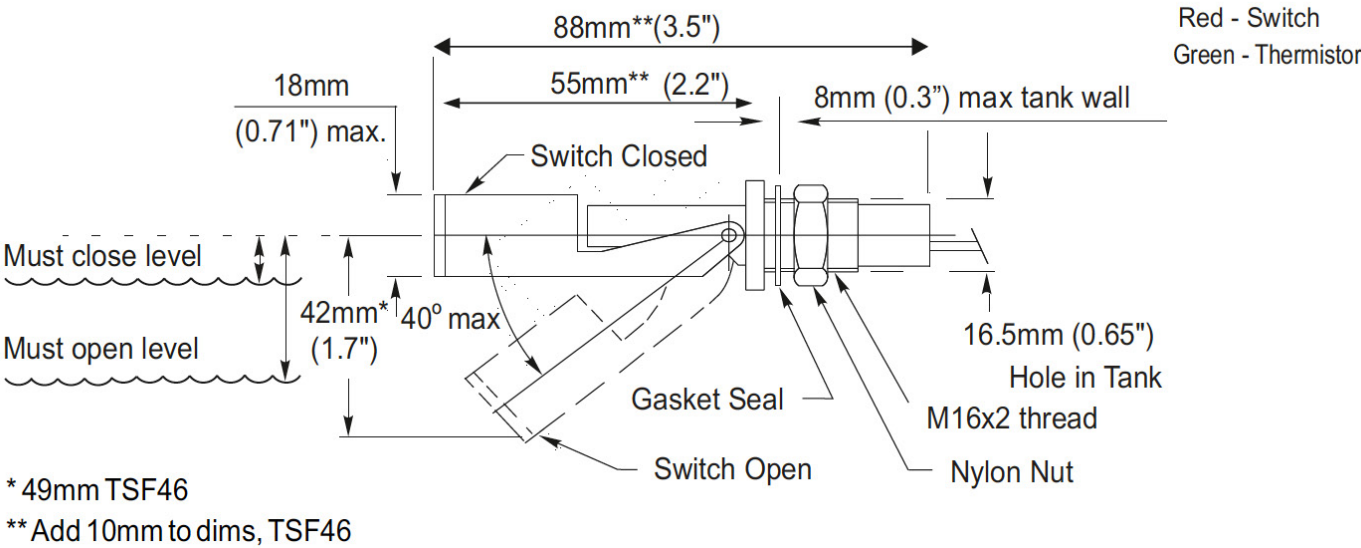
## STANDARD PARTS

|                    | Material | Temperature     | Max Power | Leadouts         | Gasket  | Approvals |
|--------------------|----------|-----------------|-----------|------------------|---------|-----------|
| <b>TSF43H100DF</b> | Nylon    | -20°C to +75°C  | 100VA     | 100cm PVC 16/0.2 | Nitrile | WRAS      |
| <b>TSF43Y100DF</b> | Nylon    | -20°C to +75°C  | 25VA      | 100cm PVC 16/0.2 | Nitrile | WRAS      |
| <b>TSF44H100DF</b> | PP       | -20°C to +100°C | 100VA     | 100cm PVC 16/0.2 | Nitrile | WRAS      |
| <b>TSF44Y100DF</b> | PP       | -20°C to +100°C | 25VA      | 100cm PVC 16/0.2 | Nitrile | WRAS      |
| <b>TSF46H050TG</b> | PPS      | -10°C to +120°C | 100VA     | 50cm ETFE 19/0.2 | Viton   | WRAS      |
| <b>TSF46H100DF</b> | PPS      | -10°C to +100°C | 100VA     | 100cm PVC 16/0.2 | Nitrile | WRAS      |
| <b>TSF46Y050TG</b> | PPS      | -10°C to +120°C | 25VA      | 50cm ETFE 19/0.2 | Viton   | WRAS      |
| <b>TSF46Y100DF</b> | PPS      | -10°C to +105°C | 25VA      | 100cm PVC 16/0.2 | Nitrile | WRAS      |
| <b>TSF48H100DF</b> | PP (UL)  | -20°C to +100°C | 100VA     | 100cm PVC 16/0.2 | Nitrile |           |
| <b>TSF48Y100DF</b> | PP (UL)  | -20°C to +100°C | 100VA     | 100cm PVC 16/0.2 | Nitrile |           |

Custom versions can be made for particular applications. Please contact Sensata with your requirements.  
WRAS approvals pending

## DIMENSIONS

All dimensions are in millimeters.



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