## **TSF80 Series**



# 1/2"NPT External Mount with Temperature Sensing



The TSF80 series is a compact external fitting device, via 1/2"NPT thread, with a high specification thermistor so capable of sensing both liquid level and temperature.

The device is mounted through a 1/2"NPT boss, so does not require 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, to suit most commonly used liquids.

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

- Compact design with temperature sensing
- 1/2"NPT thread for external mount
- 25VA & 100VA versions
- WRAS Approved versions

Technical Specification	TSF83	TSF84	TSF88	TSF86
Material	Nylon	Polypropylene WRAS approved	Polypropylene UL approved	Polyphenylene Sulphide (PPS)
Colour	Black	Opaque	White	Grey
Temp. Range °C	-20 / +75	-20 / +100	-20 / +100	-10 / +120 *
°F	-4 ./ +167	-4 / +212	-4 / +212	+14 / +248 *
Min. Fluid SG	0.85	0.85	0.85	0.85
Must close level (SG=1)	7mm	8mm	8mm	9mm
Must open level (SG=1)	20mm	20mm	20mm	24mm

<sup>\*</sup> Maximum temperature requires ETFE cable to be specified.

Electrical Specification		25W (Y code)	100W (H code)
Contact Form		N/O (N/C)	N/O (N/C)
Switching Power Max	VA	25	100
Switching Voltage AC Max	V	240	300
Switching Voltage DC Max	V	120	300
Switching Current Max	Α	0.6	1
All ratings are for resistive load only.			

#### **Thermistor Specification**

Nominal Temperature Resistance
Resistance Tolerance
Operating Temperature Range
Temperature Sensing Accuracy
Beta Value

Dissipation Constant

10k Ohm at 25°C
+/- 1% (25°C) to +/- 4.3% (120°C)
-20°C to +120°C
+/-0.2°C (0°C to +70°C)
3892K (0/50°C)
-1 sec
0.75mW/K

Standard Part	sMaterial	Temperature Max Power	Leadouts	Output
TSF83H100D	Nylon	-20°C to +75°C 100VA	100cm PVC 16/0.2	SPNO + Temp
TSF83Y100D	Nylon	-20°C to +75°C 25VA	100cm PVC 16/0.2	SPNO + Temp
TSF84H100D	PP	-20°C to +100C 100VA	100cm PVC 16/0.2	SPNO + Temp
TSF84Y100D	PP	-20°C to +100°C 25VA	100cm PVC 16/0.2	SPNO + Temp
TSF86H050T	PPS	-10°C to +120°C 100VA	50cm ETFE 19/0.2	SPNO + Temp
TSF86H100D	PPS	-10°C to +100°C 100VA	100cm PVC 16/0.2	SPNO + Temp
TSF86Y050T	PPS	-10°C to +120°C 25VA	50cm ETFE 19/0.2	SPNO + Temp
TSF86Y100D	PPS	-10°C to +105°C 25VA	100cm PVC 16/0.2	SPNO + Temp
TSF88H100D	PP (UL)	-20°C to +100C 100VA	100cm PVC 16/0.2	SPNO + Temp
TSF88Y100D	PP (UL)	-20°C to +100C 100VA	100cm PVC 16/0.2	SPNO + Temp

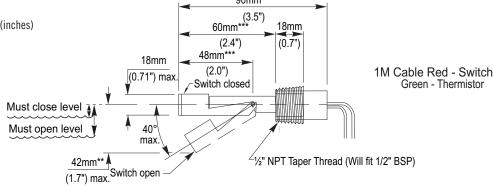
Custom versions can be made for particular applications. Please contact Cynergy3 with your requirements.

### **Mechanical Dimensions**

All dimensions are in millimeters (inches)

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- \*\* 49mm TSF86
- \*\*\* Add 10mm to dims, TSF86



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ISO9001 CERTIFIED

TSF80 2017