



# 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
- Many variants are UL recognised components File No. E171218
- 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

\* 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
Switching Voltage AC Max	V	240
Switching Voltage DC Max	V	120
Switching Current Max	A	0.6

All ratings are for resistive load only.

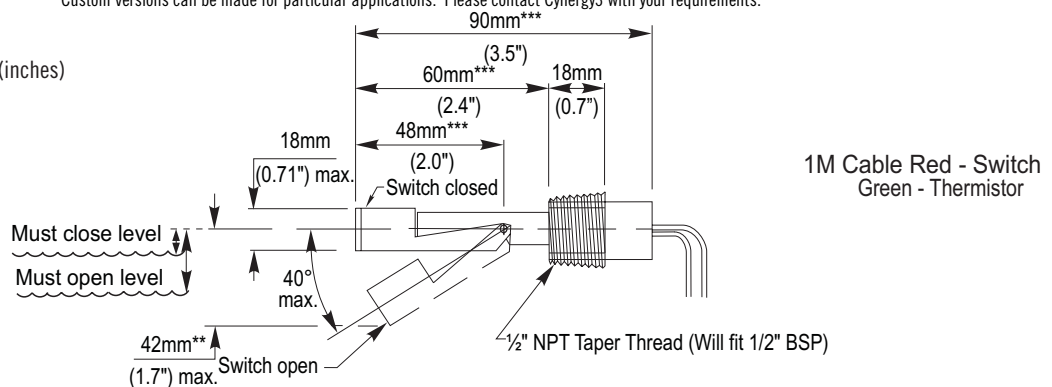
Thermistor Specification	
Nominal Temperature Resistance	10k Ohm at 25°C
Resistance Tolerance	+/- 1% (25°C) to +/- 4.3% (120°C)
Operating Temperature Range	-20°C to +120°C
Temperature Sensing Accuracy	+/-0.2°C (0°C to +70°C)
Beta Value	3892K (0/50°C)
Response Time	<1 sec
Dissipation Constant	0.75mW/K

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

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

### Mechanical Dimensions

All dimensions are in millimeters (inches)



Cynergy3 Components Ltd.  
7 Cobham Road  
Ferndown Industrial Estate  
Wimborne, Dorset BH21 7PE  
Telephone +44 (0) 1202 897969

Email:sales@cynergy3.com

\*\* 49mm TSF86

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

ISO9001 CERTIFIED

www.cynergy3.com