



RS stock numbers : 725-9811, 725-9814, 725-9818



TSF40 Series

Compact internal fitting with integral thermistor output

The TSF40 is a development of the established RSF40 series range of liquid level sensors. Incorporating a high specification thermistor, this device is now capable of sensing both fluid level and temperature.

Mounting of this series requires access to the inside of the tank.

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°.

| Technical Specification | TSF43 | TSF44 | TSF48 | TSF46 |
|---------------------------|-----------|--------------------------------|------------------------------|---------------------------------|
| 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 S.G. | 0.85 | 0.85 | 0.85 | 0.85 |
| Must Close Level (S.G.=1) | 7mm | 8mm | 8mm | 9mm |
| Must Open Level (S.G.=1) | 20mm | 20mm | 20mm | 24mm |

*Maximum temperature requires ETFE cable to be specified.

| Electrical Specification | 25W (Y Switch) | 100W (H Switch) |
|---------------------------|----------------|-----------------|
| Contact Form | N/O (N/C) | N/O (N/C) |
| Switching Power Max. VA | 25VA | 100VA |
| Switching Voltage AC Max. | 240V | 300V |
| Switching Voltage DC Max. | 120V | 300V |
| Switching Current Max. A | 0.6A | 1A |

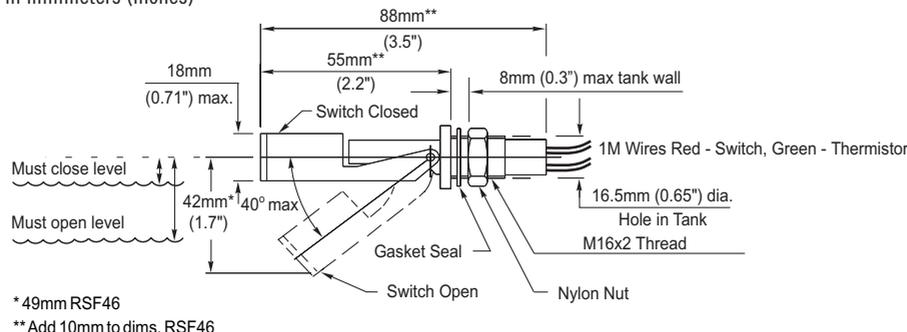
All ratings are for resistive load only.

| 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 |

| RS Stock code | Standard Parts | Material | Approvals | Leadouts | Gaskets |
|---------------|----------------|---------------|-----------|--------------------------------|---------|
| 725-9811 | TSF43H100DF | Nylon | WRAS | 1.0m XLPVC 19/0.23 UL Approved | Nitrile |
| 725-9814 | TSF44H100DF | Polypropylene | WRAS | 1.0m XLPVC 19/0.23 UL Approved | Nitrile |
| 725-9818 | TSF46H100DF | PPS | WRAS UL | 1.0m XLPVC 19/0.23 UL Approved | Nitrile |
| | TSF48H/Y100DF | Polypropylene | UL | 1.0m XLPVC 19/0.23 UL Approved | Nitrile |

Mechanical Dimensions

All dimensions are in millimeters (inches)



- Compact design
- Reliable reed switch contacts
- Available in Nylon, Polypropylene or PPS
- WRAS approval

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

Email: sales@cynergy3.com

ISO 9001 CERTIFIED

www.cynergy3.com

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TSF40-2011RS

TSF70 Series

Compact external fitting with
integral thermistor output

cynergy³ components™



- Compact design
- Reliable reed switch contacts
- Available in Nylon,
Polypropylene or PPS
- Integral Thermistor
- Compression Seal Mount

| Technical Specification | TSF73 | TSF74 | TSF78 | TSF76 |
|---------------------------|-----------|--------------------------------|------------------------------|---------------------------------|
| 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 S.G. | 0.85 | 0.85 | 0.85 | 0.85 |
| Must Close Level (S.G.=1) | 7mm | 8mm | 8mm | 9mm |
| Must Open Level (S.G.=1) | 20mm | 20mm | 20mm | 24mm |

*Maximum temperature requires ETFE cable to be specified.

| Electrical Specification | 25W (Y Switch) | 100W (H Switch) |
|---------------------------|----------------|-----------------|
| Contact Form | N/O (N/C) | N/O (N/C) |
| Switching Power Max. VA | 25VA | 100VA |
| Switching Voltage AC Max. | 240V | 300V |
| Switching Voltage DC Max. | 120V | 300V |
| Switching Current Max. A | 0.6A | 1A |

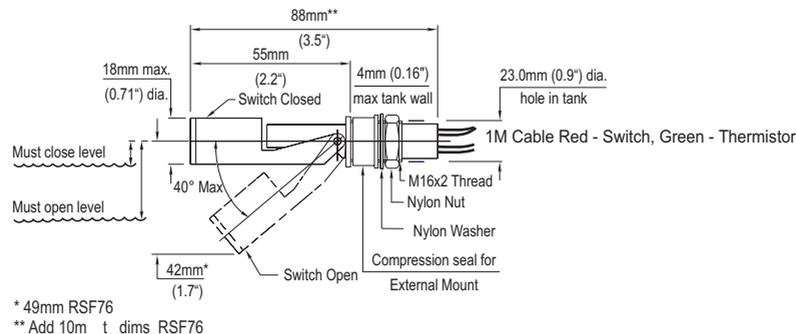
All ratings are for resistive load only.

| 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 | Leadouts | Gaskets |
|----------------|--------------------|--------------------------------|---------|
| TSF73H/Y100DF | Nylon | 1.0m XLPVC 19/0.23 UL Approved | Nitrile |
| TSF74H/Y100DF | Polypropylene | 1.0m XLPVC 19/0.23 UL Approved | Nitrile |
| TSF76H/Y100DF | PPS | 1.0m XLPVC 19/0.23 UL Approved | Nitrile |
| TSF78H/Y100DF | Polypropylene (UL) | 1.0m XLPVC 19/0.23 UL Approved | Nitrile |

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
Fax +44 (0) 1202 891918
Email:sales@cynergy3.com

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www.cynergy3.com

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