Series 

**Thermocouple Limit Control**

**FM Approved High Limit Switch**

The Series TSF Thermocouple FM Approved Limit Control provides audible alarm status along with a robust 16 amp relay output. Unit allows the user to easily select automatic or manual reset along with 10 other parameters. The TSF series has a built in reset button on the front panel or can accept an external reset signal.

**Model** | **Supply Power** | **Unit** | **Price** |
---|---|---|---|
TSF-4010 | 115 VAC | °F | $89.00 |
TSF-4011 | 115 VAC | °C | 89.00 |
TSF-4021 | 230 VAC | °C | 89.00 |
TSF-4040 | 24 VAC/VDC | °F | 89.00 |

**ACCESSORIES**

- **TCS-J**, J type thermocouple, 4” probe, 48” extension
- **TCS-K**, K type thermocouple, 4” probe, 48” extension
- **TS2-K**, Configuration Key

| Model | Control | Supply Power | Unit | Price |
---|---|---|---|---|
TSF-4010-DF | Limit Alarm | 115 VAC | °F | $89.00 |
TSF-4011-DF | Limit Alarm | 115 VAC | °C | 89.00 |
TSF-4021-DF | Limit Alarm | 230 VAC | °C | 89.00 |
TSF-4040-DF | Limit Alarm | 24 VAC/VDC | °F | 89.00 |
TSF-4010-MDF | Programming Control | 115 VAC | °F | 89.00 |
TSF-4011-MDF | Programming Control | 115 VAC | °C | 89.00 |
TSF-4021-MDF | Programming Control | 230 VAC | °C | 89.00 |
TSF-4040-MDF | Programming Control | 24 VAC/VDC | °F | 89.00 |

**SPECIFICATIONS**

- **Probe Range**: 32 to 999°F (0 to 700°C) for Type J thermocouple; 32 to 999°F (0 to 999°C) for Type K or S thermocouples.
- **Input**: Type J, K, or S thermocouple.
- **Output**: SPDT relay rated 16A @ 240 VAC resistive.
- **Horsepower Rating (HP)**: 1 HP.
- **Control Type**: ON/OFF; manual/automatic reset.
- **Power Requirements**: 115 VAC, 230 VAC, 12 VAC/VDC or 24 VAC/VDC (depending on model).
- **Power Consumption**: 4 VA.
- **Accuracy**: ±1% FS.
- **Display**: 3-digit, red, 1/2” (12.7 mm) digits, plus sign.
- **Resolution**: 1°.
- **Memory Backup**: Nonvolatile memory.
- **Temperature Limits**: Ambient: 32 to 150°F (0 to 65°C); Storage: -4 to 176°F (-20 to 80°C).
- **Weight**: 2.3 oz (65 g).
- **Front Panel Rating**: IP64 (NEMA 3R).
- **Agency Approvals**: CE, FM, cUR, UR.

**Series TSF-DF Digital Thermocouple Limit Alarm**

**UL Approved Temperature Control**

The Series TSF-DF Digital Thermocouple Limit Alarm is a UL approved temperature limit control that provides visual alarm status along with a 16 amp SPST relay output. The Series TSF-DF controls have a built in reset button on the front panel or can accept an external reset signal. Program settings on model TSF-DF controls cannot be changed through the buttons on the device. It is necessary to purchase a model TSF-MDF and a model TS2-K in addition to the model TSF-DF. Desired program parameters are entered on a TSF-MDF programming control. Using the TS2-K configuration key, the parameters can be easily copied from the TSF-MDF and transferred to the TSF-DF Limit Alarms.

| Model | Control | Supply Power | Unit | Price |
---|---|---|---|---|
TSF-4010-DF | Limit Alarm | 115 VAC | °F | $89.00 |
TSF-4011-DF | Limit Alarm | 115 VAC | °C | 89.00 |
TSF-4021-DF | Limit Alarm | 230 VAC | °C | 89.00 |
TSF-4040-DF | Limit Alarm | 24 VAC/VDC | °F | 89.00 |
TSF-4010-MDF | Programming Control | 115 VAC | °F | 89.00 |
TSF-4011-MDF | Programming Control | 115 VAC | °C | 89.00 |
TSF-4021-MDF | Programming Control | 230 VAC | °C | 89.00 |
TSF-4040-MDF | Programming Control | 24 VAC/VDC | °F | 89.00 |

**ACCESSORIES**

- **TCS-J**, J type thermocouple, 4” probe, 48” extension
- **TCS-K**, K type thermocouple, 4” probe, 48” extension
- **TS2-K**, Configuration Key

| Model | Control | Supply Power | Unit | Price |
---|---|---|---|---|
TSF-4010-DF | Limit Alarm | 115 VAC | °F | $89.00 |
TSF-4011-DF | Limit Alarm | 115 VAC | °C | 89.00 |
TSF-4021-DF | Limit Alarm | 230 VAC | °C | 89.00 |
TSF-4040-DF | Limit Alarm | 24 VAC/VDC | °F | 89.00 |
TSF-4010-MDF | Programming Control | 115 VAC | °F | 89.00 |
TSF-4011-MDF | Programming Control | 115 VAC | °C | 89.00 |
TSF-4021-MDF | Programming Control | 230 VAC | °C | 89.00 |
TSF-4040-MDF | Programming Control | 24 VAC/VDC | °F | 89.00 |

**SPECIFICATIONS**

- **Probe Range**: 32 to 999°F (0 to 700°C) for thermocouple J type; 32 to 999°F (0 to 999°C) for thermocouple K or S type.
- **Input**: Type J, K, or S thermocouple.
- **Output**: NO SPST relay rated 16A @ 240 VAC resistive.
- **Horsepower Rating (HP)**: 1 HP.
- **Control Type**: ON/OFF; manual/automatic reset.
- **Power Requirements**: 115 VAC, 230 VAC, 12 VAC/VDC or 24 VAC/VDC (depending on model).
- **Power Consumption**: 4 VA.
- **Accuracy**: ±1% FS.
- **Display**: 3-digit, red, 1/2” (12.7 mm) digits, plus sign.
- **Resolution**: 1°.
- **Memory Backup**: Nonvolatile memory.
- **Ambient Operating Temperature**: 32 to 140°F (0 to 60°C).
- **Storage Temperature**: -4 to 176°F (-20 to 80°C).
- **Weight**: 2.3 oz (65 g).
- **Front Panel Rating**: IP64 (NEMA 3R).
- **Agency Approvals**: DF Models: CE, cUR, UR; MDF Models: None.

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