Temperature Switches,

Limit

TEMPERATURE

Dwyer Instruments, Inc.
www.dwyer-inst.com

SPECIFICATIONS

Selectable Inputs: 10 thermocouple, 4 RTD, DC voltage, or DC current selectable.
Display: Two 4 digit, 7 segment 0.3˝ (7.62 mm) high LEDs.
Accuracy: ±0.25% of span, ±1 least significant digit.
Supply Voltage: 100 to 240 VAC, nominal, +10 -15%, 50 to 400 Hz. single phase; 132 to 240 VDC, nominal, +10 -20%.
Power Consumption: 5 VA maximum.
Operating Temperature: 14 to 131˚F (-10 to 55˚C).
Memory Backup: Nonvolatile memory. No batteries required.
Control Output Ratings:
Relay: SPST, 3A @ 240 VAC resistive; 1.5A @ 240 VAC inductive.
Weight: 8 oz (227 g).
Agency Approvals: FM, cUL, UL.
Front panel Rating: NEMA 4X (IP66).

STANDARD FEATURES

• FM approved limit
• Large dual display
• Universal input
• Dedicated, illuminated reset key
• Remote reset capability standard
• Four password protected security levels

The 16L Series Temperature/Process FM Approved Limit Controls set a new standard in 1/16 DIN limit controls. The 16L offers universal input (10 thermocouple types, 4 RTD types, voltage, and current), single set point or dual set point. Standard features include remote reset capability, peak/valley indication, open sensor protection, input rate of change protection, and much more.

Unit offers 1500 VAC resolution, selectable high or low input, programmable sensor break protection and adjustable differential. Outputs include normally open (form A) and normally closed (form B) relays. Form A and form B relays can be setup one for each set point output and logically linked to emulate a form C output.

Designed and built in the USA, the 16L family of controls offers the highest levels of features, function, and quality available today.

OPTIONS (Add as a suffix to model number)

-934, Process Signal Output, Isolated 0 to 20 mA
-936, Process Signal Output, Isolated 0 to 10 VDC
-992, RS-485 Serial Communications
-993, RS-232 Serial Communications

ACCESSORY:

A-600, R/C snubber

Model
16L2030
16L2034

Output A
N.O. Relays
N.O. Relays

Output B
None
N.C. Relays

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.

SPECSIFICATIONS

Probe Range: 0 to 700°C (32 to 999°F) for thermocouple J type, 0 to 999°C (32 to 999°F) for thermocouples K or S type.
Input: Type J, K or S thermocouple.
Output: 16A SPDT relay @ 250 VAC resistive.
Horsepower Rating (HP): 1 HP.
Control Type: ON/OFF; manual/automatic reset.
Power Requirements: 110 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: 14 to 131°F (-10 to 55°C).
Storage Temperature: -4 to 176°F (-20 to 80°C).
Weight: 2.3 oz (65 g).
Agency Approvals: CE, FM, cUL, UR.
Front Panel Rating: IP64 (NEMA 3R).

Model
Description

TSF-4010
Type J/K/S input, 110 V, °F

TSF-4011
Type J/K/S input, 110 V, °C

TSF-4021
Type J/K/S input, 230 V, °C

TSF-4040
Type J/K/S input, 24 VAC/VDC, °F

ACCESSORIES

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

TSF-4010
TSF-4011
TSF-4021
TSF-4040