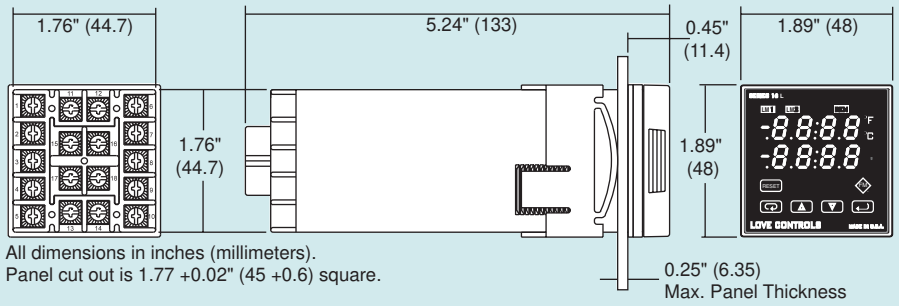
Series 16L

Limit Controls

FM Approved, Large, Dual Display, Universal Input

FM APPROVED

LISTED



Temperature

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. Full compatablity with Love's 16A and 16S Series of controls offers family interchangeability with different levels of features. Ease of use is assured with consistant programming and a dedicated front panel reset key that flashes for limit conditions.

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.

Outputs include AC and DC solid state relays, DC SSR drive, and 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.

Options for the 16L include Process Output Retransmission (Voltage or Current), RS-485 Serial Communication, and low voltage (12-24 V) operation.

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

SPECIFICATIONS

Selectable Input: 10 Thermocouple, 4 RTD, DC Voltage, or DC Current selectable.
Input Impedance: Thermocouple = 3 megohms minimum.
Current = 10 ohms.
RTD current = 200 µA max.
Voltage = 5000 ohms.
Sensor Break Protection: User programmable with adjustable time delay.
Set Point Range: Selectable (See Range Chart).
Display: Two 4 digit, 7 segment 0.3˝ (7.62 mm) high LEDs.
Limit Action: High Limit or Low Limit, selectable.
On-Off Differential: Adjustable 1˚F, 1˚C, or 1 count to full scale in 1˚F, 1˚C, or 1 count steps.
Accuracy: ±0.25% of span, ±1 least significant digit.
Resolution: 1 degree or 0.1 degree, selectable.
Line Voltage Stability: ±0.05% over the supply voltage range.
Temperature Stability: 4 µV/˚C (2.3 µV/˚F) typical, 8µV/˚C (4.5 µV˚F) maximum (100 ppm/˚C typical, 200 ppm/˚C maximum).
Isolation: All limit outputs: 1500 VAC to all other inputs and outputs.
Process Output (Option 934, 936): 500 VAC to all other inputs and outputs.
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).
Storage Temperature: -40 to 176˚F (-40 to +80˚C).
Humidity Conditions: 0 to 90% up to 40˚C non-condensing.
Memory Backup: Nonvolatile memory. No batteries required.
Control Output Ratings:
AC SSR: 2.0A @ 240 VAC at 77˚F (25˚C), zero cross-over fired. Derates to 1.0A @ 130˚F (55˚C). Minimum load is 100 mA.
DC SSR: 1.75A @ 32 VDC maximum isolated.
Relay: SPST, 3A @ 240 VAC resistive; 1.5A @ 240 VAC inductive; Pilot Duty Rating: 250 VA, 2A @ 120 VAC or 1A @ 240 VAC.
Switched Voltage (isolated):15 VDC @ 20 mA.
Panel Cutout: 1.772˝ x 1.772˝ (45 mm x 45 mm).
Depth Behind Mounting Surface: 4.54˝ (115.3 mm).
Weight: 8 oz (227 g).

Options

934* -	Process Signal Output, PV or SV. Isolated 0 to 20 mADC
936* -	Process Signal Output, PV or SV. Isolated 0 to 10 VDC
992* -	RS 485 Computer Compatible Control
993* -	RS 232 Computer Compatible Control
9502 -	12-24 VDC/VAC power input

*These options may not be combined with each other.

Option Numbers

Model 16L 20 [ ] [ ] - [ ] - [ ]

Output A
1 = SSR
2 = 15 VDC Pulsed
3 = Relay, normally open
4 = Relay, normally closed
8 = DC SSR

Output B
0 = None
1 = SSR
2 = 15 VDC Pulsed
3 = Relay, normally open. .
4 = Relay, normally closed. .
8 = DC SSR

Series 16L Limit Control

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