

Safety, Simplicity.

Future Design's L91 is a 1/16DIN control designed to provide limit protection in process applications. Up to three discreet setpoints, two outputs, fast scan rates and user friendly prompts make it the right choice for safety protection. The L91 offers a full range of universal inputs. Power supply selections of 90-264 VAC (std) or 11-26 VAC/VDC allows the L91 to be used virtually anywhere. Output selections include Relay, SSR Drive or Triac. Optional features such as a second latching relay, DC power supply, remote reset or communications offer maximum flexibility for demanding applications. The L91 display can be configured for PV, HSP, LSP or Safe, offering the simplicity required by operations personnel.

- Latching Outputs
- Annunciator Output
- Remote Reset
- RS-485 Interface
- Operations Friendly
- UL, FM, CE Approval



FDC-L91

1/16 DIN LIMIT CONTROL

FDC-L91 SPECIFICATIONS

POWER

90-264 VAC, 49-63 Hz, 10VA, 5W MAXIMUM
 11-26 VAC/VDC, 10VA, 5W MAXIMUM

INPUT

Thermocouple: (T/C): Type J,K,T,E,B,R,S,N,L
RTD: PT 100 ohm RTD (DIN or JIS)
Linear: 4-20, 0-20mA, 0-60mV, 0-1, 0-5, 1-5, 0-10VDC
Range: Per table in manual
Accuracy: Typically better than $\pm .25\%$ of span
Cold Junction Compensation: $\pm 1.5\mu V/^{\circ}C@25^{\circ}C$
Sensor Break: 4 sec. for sensor input, 0.1 sec. for linear 4-20 mA or 1-5 VDC
Common Mode Rejection: 120dB
Sample Rate: 5 times per second

LIMIT OUTPUT TYPES

Relay: Form C 2.0 Amp/240 VAC Resistive
SSR Drive: 5 Volt VDC@30 Ma
Triac: 1.0 Amp/240 VAC

INDICATION

Single LED Display: 0.4" Height, 4 Digits Red
Unit Display: $^{\circ}C$ and $^{\circ}F$ Indicator
Status Indicator: Out1, Out2, HSP1, LSP2, SP2, Lock

OPTIONS

Second Output: Relay Form A 2.0Amp@240 Res. (N.O.)
 SSR Drive 5VDC@30MA
 Triac 1.0 AMP@240 VAC
Second Output Types: Latching, Non-Latching, Annunciator
Communications: Modbus RTU
DC Power Supply: Isolated 20 VDC@25 MA
 Isolated 12 VDC@40 MA
 Isolated 5 VDC@80 MA
Remote Reset: External Contact Closure Reset

ENVIRONMENTAL AND PHYSICAL

Operating Temperature: -10 to 50 $^{\circ}C$
Storage Temperature: -40 to 60 $^{\circ}C$
Humidity: 0/90% RH (non-condensing)
Insulation: 20 M ohms Minimum (500 VDC)
Dielectric Strength: 2000 VAC, 50/60 Hz@1 Min.
Shock Resistance: 200m/s² (20G)
Vibration: 10-55Hz, 10m/s² for 2 hours
Molding: Flame retardant polycarbonate
Dimensions: 1.89" (H) x 1.89" (W) x 3.70" (D)
Weight: 5.3 oz. (150 grams)

ORDERING INFORMATION

Enter a number in each box which corresponds to the specifications you want when ordering the L91.

FDC-L91

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POWER INPUT

- 4: 90-264 VAC 49/63 Hz
- 5: 11-26 VAC/VDC
- 9: Special Order

SIGNAL INPUT

- 1: Universal Input T/C, RTD, Mv
- 2: Voltage DC: 0-1, 0-5, 1-5
- 3: Voltage DC: 0-10
- 4: mA 0-20, 4-20
- 5: Special Order

NOTE: Instruments ordered with signal inputs 2, 3 & 4 are not FM approved.

OUTPUT 1

- 1: Form C Relay - 2.0 Amps@240 VAC Res.
- 2: SSR Drive - 5 VDC@30 ma
- 3: Triac - 1.0 Amp@240 VAC
- 4: Special Order

OPTIONS

- 0: None
- 1: Form A Relay - 2.0 Amps@240 VAC Res. (N.O.)
- 2: SSR Drive - 5 VDC@30 ma
- 6: TRIAC - 1.0 Amp@240 VAC
- 7: Isolated DC Power Supply - 20 VDC@25 mA
- 8: Isolated DC Power Supply - 12 VDC@40 mA
- 9: Isolated DC Power Supply - 5 VDC@80 mA
- A: RS - 485 (Modbus RTU)
- B: Remote Reset
- C: Special Order

UL, FM Approved

