

The FDC-L41 1/4 DIN Limit Control provides up to three discreet setpoints, two control outputs, communication options, fast scan rates and user friendly prompts making it the right choice for safety protection.

The L41 offers Remote Reset as standard and offers a full range of universal high resolution (18 bit) inputs; T/C, RTD and linear mA/VDC inputs. Power requirement of either 90-250 VAC or optional 11-26 VAC/VDC allows the L41 to be used virtually anywhere.

Control outputs offer Form C Relay, SSR Drive or Triac with the optional Output #2 configurable as latching, non-latching or with alarm silence logic. Output #2 may also be specified as a transmitter power supply.

Communication options offer a variety of analog retransmission or serial RS232/485 Modbus RTU.

- Dual Display
- Latching outputs
- Remote Reset
- Shallow Panel Depth
- Communications
- Agency Approvals



# FDC-L41

FDC-L41 LIMIT CONTROL

<http://www.futuredesigncontrols.com/L41.html>

## FDC-L41 SPECIFICATIONS

### POWER

90-250 VAC, 47-63Hz, 10VA, 5W Maximum  
 11-26 VAC/VDC, 10VA, 5W Maximum

### INPUT

**Thermocouple:** Type J, K, T, E, B, R, S, N, L, C & P

**RTD:** PT 100 ohm DIN and PT 100 JIS

**Linear:** 4-20mA, 0-20mA, 0-60mV, 0-1, 0-5, & 0-10VDC

**Range:** Per Table in manual

**Accuracy:** Typically better than +/- 0.25%; see table in manual

**Sensor Break:** 4 seconds for T/C & RTD inputs; 0.1 second for linear mA & VDC inputs

**Common Mode Rejection:** 120dB

**Sample Rate:** 5 times per second

**Remote Reset:** Standard

### LIMIT OUTPUT TYPES

**Relay:** Form C 2.0 Amp/240VAC

**SSR Drive:** 5 VDC@30mA, 14 VDC@40mA

**Triac:** 1.0 Amp/240VAC

### INDICATION

**Dual LED 4 Digit Displays:** Process 0.56" and Setpoint 0.4"

#### Display Logic:

- Upper Display: Process (temperature) is always shown
- Lower Display: Configurable; non-Alarm condition display SAFE or Setpoint value; when in alarm Setpoint is shown.

**Status Indicator:** Output #1, Output #2, °F, °C, Lock

### OPTIONS

#### Second Output:

Relay Form C 2.0 Amp @240VC  
 SSR Drive 5VDC @30mA, 14VDC @40mA  
 Triac 1.0 Amp @240VAC

#### Second Output Alarm Types:

Latching, non-latching and alarm silence

#### Second Output as DC Isolated Power Supply:

20VDC @25mA, 12VDC @40mA, 5VDC @80mA

#### Communication:

Serial Modbus RTU RS-232 or RS-485  
 Retransmit 0-20/4-20mA, 0-5/1-5/0-10VDC (15 bit)  
 Configurable for PV, HSP1 or HSP2

### ENVIRONMENTAL AND PHYSICAL

**Operating Temperature:** -10 to 50C

**Storage Temperature:** -40 to 60C

**Humidity:** 0-90% RH (non-condensing)

**Insulation:** 20M ohms Minimum (500VDC)

**Dielectric Strength:** 2000 VAC, 50/60 Hz, @ 1 minute

**Vibration Resistance:** 10-55 Hz, 10 m/s for 2 hours

**Shock Resistance:** 200m/s (20g)

**Molding:** Flame retardant polycarbonate

**IP Panel Rating:** IP50 (IP65 optional)

#### Dimension\Weight:

3.77" (H) x 3.77" (W) x 2.08" (D) \ 8.84 oz (250g)  
 96mm (H) x 96mm (W) x 53mm (D)

# ORDERING INFORMATION

Enter a number in each box which corresponds to the specifications you want when ordering the FDC-L41.

## FDC L41

### POWER INPUT

- 4: 90-250 VAC 50/60 HZ
- 5: 11-26VAC/VDC
- 9: Special Order

### SIGNAL INPUT

See note at bottom right on FM Approval & VDC/mA inputs

- 1: Universal Input T/C, RTD, mV (0-60mV)
- 2: Voltage DC: 0-1\*
- 3: Voltage DC: 0-10\*
- 4: mA: 4-20, 0-20\*
- 5: Voltage DC: 1-5, 0-5\*
- 9: Special Order\*

### OUTPUT 1

- 1: Form C Relay (SPDT) - 2 Amps @ 240VAC resistive
- 2: SSR drive - 5 VDC @ 30 mA
- 6: Triac - 1 Amp @ 240VAC solid state relay
- C: SSR drive - 14 VDC @ 40 mA
- 9: Special Order

### OUTPUT 2

- 0: None
- 1: Form C Relay - 2A@240 VAC resistive (SPDT)
- 2: SSR Drive - 5 VDC @ 30 mA
- 6: Triac - 1 Amp @ 240VAC solid state relay
- 7: Isolated PS Supply 20VDC @ 25mA
- 8: Isolated PS Supply 12VDC @ 40mA
- 9: Isolated PS Supply 5VDC @ 80mA
- C: SSR Drive - 14VDC @ 40mA
- H: Special Order

### COMMUNICATIONS

- 0: None
- 1: RS-485 Modbus RTU
- 2: RS-232 Modbus RTU
- 3: Retransmission: 0-20/4-20mA, isolated, 500 ohm load
- 4: Retransmission: 0-5/1-5VDC, isolated, 10k ohm load
- 5: Retransmission: 0-10VDC, isolated, 10k ohm load
- 9: Special Order

### PROTECTIVE CLASS

- 0: IP50 Standard
- 1: IP65 (Nema 4X)

\*Signal Input: Note: Instruments ordered with signal inputs 2, 3, 4, 5 & 9 are not FM Approved.



CE RoHS Compliant

