

Future Design's 2500 series breaks all the rules for 32nd DIN controllers. Input sample rate of 5 scans per second, current transformer (heater break monitoring) or second analog input (remote setpoint or event input) is included as standard on the 2500. 18 bit A/D and 15 bit D/A offer the highest accuracy for industrial control applications. The 2500 can be supplied with up to 2 control outputs, alarm and communications (or analog retransmission), all in a 32nd DIN package. The 2500 can also be equipped with a 20VDC/25mA power supply if output 2/alarm 2 is not required. Standard software functionality includes Fuzzy logic + PID, Ramp/Soak, timer function, pump control, dual setpoint (event selectable) and more. With isolated inputs/outputs, UL/CSA and CE, the 2500 can go anywhere and do the job.

- Fuzzy Logic
- Fast Scan Rates
- UL/CSA/CE
- RS-485 Interface
- Nema 4X/IP65 protection
- Dual Inputs



**FDC-2500 32ND DIN CONTROLLER**

**FDC-2500**

## FDC-2500 SPECIFICATIONS

### POWER

90-264VAC, 50/60Hz  
 11-26VAC/VDC

### INPUT

**Thermocouple (T/C):** Type J,K,T,E,B,R,S,N,L  
**RTD:** PT 100 ohm RTD (DIN 4370 or JIS)  
**Linear:** 4-20, 0-20mA, 0-1, 0-5, .1-5, 0-10V  
**Range:** User configurable  
**Accuracy:** Typically better than  $\pm .25\%$  of span  
**Cold Junction Compensation:** 0.1°C/°C ambient typical  
**Sensor Break:** Protection mode configurable  
**Common Mode Rejection:** 120dB  
**Sample Rate:** 10 times per second

### CONTROL

**Proportional Band:** 0.1-500°C (0.1-900°F)  
**Reset (Auto):** 0-1000 seconds  
**Rate (Derivative):** 0-360.0 seconds  
**Ramp Rate:** 0-500°C (900°F)/minute or hour  
**Dwell:** 0-6553.5 minutes  
**On-Off:** with adjustable hysteresis (0.1-100.0°F)  
**Control Action:** Direct and reverse

### INDICATION

**Process Display:** 0.4" red LED, 4 digits  
**Status Indicator:** Control out and alarm

### ENVIRONMENTAL AND PHYSICAL

**Operating Temperature:** -10 to 50°C  
**Storage Temperature:** -40 to 60°C  
**Humidity:** 0-90% RH (non-condensing)  
**Insulation:** 20M ohms minimum (500VDC)  
**Dielectric Strength:** 2000VAC, 50/60Hz for 1 minute  
**Shock Resistance:** 200m/s<sup>2</sup> (20G)  
**Vibration:** 10-55Hz, 10m/s<sup>2</sup> for 2 hours  
**Moldings:** Flame retardant polycarbonate  
**Dimensions:** 1.04" (H) x 1.96" (W) x 4.35" (D)  
**Weight:** 4.23 oz. (120 grams)

# ORDERING INFORMATION

Enter a number in each box which corresponds to the specifications you want when ordering the FDC-2500.

## FDC-2500

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### POWER INPUT

- 4: 90-264VAC, 50/60 Hz
- 5: 11-26VAC/VDC
- 9: Special Order

### SIGNAL INPUT

- 1: Input 1 - Universal  
T/C, RTD or 4-20, 0-20mA  
0-1V, 0-5V, 1-5V, 0-10VDC
- Input 2 - CT/Analog input/Event Input  
CT: 0-50Amp AC current transformer\*  
4-20, 0-20mA, 0-1V, 0-5V, 1-5V, 0-10VDC  
(mA inputs require 250 ohm resistor)  
Event Input
- 9: Special Order

### OUTPUT 1

- 0: None
- 1: Relay 2A/240VAC resistive
- 2: SSR Drive rated at 30mA/5VDC
- 3: 4-20/0-20mA linear, maximum load 500 ohms
- 4: 1-5/0-5VDC linear, minimum impedance 10K ohms
- 5: 0-10VDC linear, minimum impedance 10K ohms
- 6: Triac 1A/240VAC
- 9: Special Order

### OUTPUT 2/ALARM 2

- 0: None
- 1: Form A Relay 2A/240VAC resistive (N.O)
- 2: SSR Drive rated at 30mA/5VDC
- 3: 4-20/0-20mA linear, maximum load 500 ohms
- 4: 1-5/0-5VDC linear, minimum impedance 10K ohms
- 5: 0-10VDC linear, minimum impedance 10K ohms
- 6: Triac 1A/240VAC
- 7: 20VDC/25mA PS
- 8: 12VDC/40mA PS
- 9: 5VDC/80mA PS
- A: Special Order

### ALARM 1

- 1: Logic Output, 5V/100mA

### COMMUNICATIONS

- 0: None
- 1: RS-485
- 2: RS-232\*\*
- 3: 0-20/4-20mA retransmission
- 4: 0-5/1-5VDC retransmission
- 5: 0-10VDC retransmission
- 9: Special Order

\* Order CT94-1 if heater break function is required.

CT-94 0-50AMP CT - \$30.00

\*\* Alternative between RS-232 and Input 2.

