

Future Design's 2500 series breaks all the rules for 32nd DIN controllers. Input sample rate of 10 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

FDC-2500 32ND DIN CONTROLLER

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/s² (20G)
Vibration: 10-55Hz, 10m/s² 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.

UL Pending

