

### HIGH ACCURACY, FLEXIBLE CONTROL, LOW COST!

Future Design's "100" series redefines the standard for 1/16, 1/8 and 1/4 DIN temperature controllers. Fast input scan rates (5 per second), 18 bit input resolution and 15 bit output resolution as well as fuzzy modified PID control provide not only the highest accuracy, but temperature control minimizing over/under shoot while maintaining fast process response.

The "100" series can be configured with up to 3 control outputs (2 PID fuzzy + alarm). A fourth output can be configured for RS232/485 Modbus or PV analog retransmission. The 100 series can also be equipped with an isolated transmitter power supply when the second control output is not required.

Standard software functionality includes Fuzzy Logic + PID, soft start ramp, Lock out protection, bumpless transfer, user defined menu operation, timer function, and more. With isolated inputs/outputs, UL/cUL and CE, the 100 series is the clear choice for temperature control applications.



### Fuzzy Logic PID Temperature Control

- Up to three Control outputs
- 5VDC & 14VDC SSR
- Variety of Alarm modes
- Transmitter Power Supply
- SEL Function to arrange user menu
- Nema 4X/IP65 protection available
- FREE Data Acquisition Software Multiview CFR21 Part 11 Features!

## FDC-100 SERIES SPECIFICATIONS

#### Power

90-250VAC, 50/60Hz 11-26VAC/VDC

INPUT (18 BIT A/D RESOLUTION) Thermocouple (T/C): Type J,K,T,E,B,R,S,N,L RTD: PT 100 ohm RTD (DIN or JIS) Range: Per table in order manual Accuracy: Typically better than ± .25% of span Cold Junction Compensation: 0.1°C/°C ambient typical Sensor Break: Protection mode configurable Common Mode Rejection: 120dB Sample Rate: 5 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 Cycle Time: 0-.1 to 90 seconds. Ramp Rate: 0-500°C (900°F)/minute or hour Timer Dwell: 0-4553.6 minutes. On-Off: with adjustable hysteresis (0.1-90.0°F) Control Action: Direct and reverse INDICATION (4 DIGIT DISPLAY) *Process Display:* 0.56" (4100), .4" (9100,8100) red. *Setpoint Display:* 0.4" (4100), .31" (9100,8100) green. *Status Indicator:* 0ut1, 0ut2, Alm, Man, °C, °F, AT

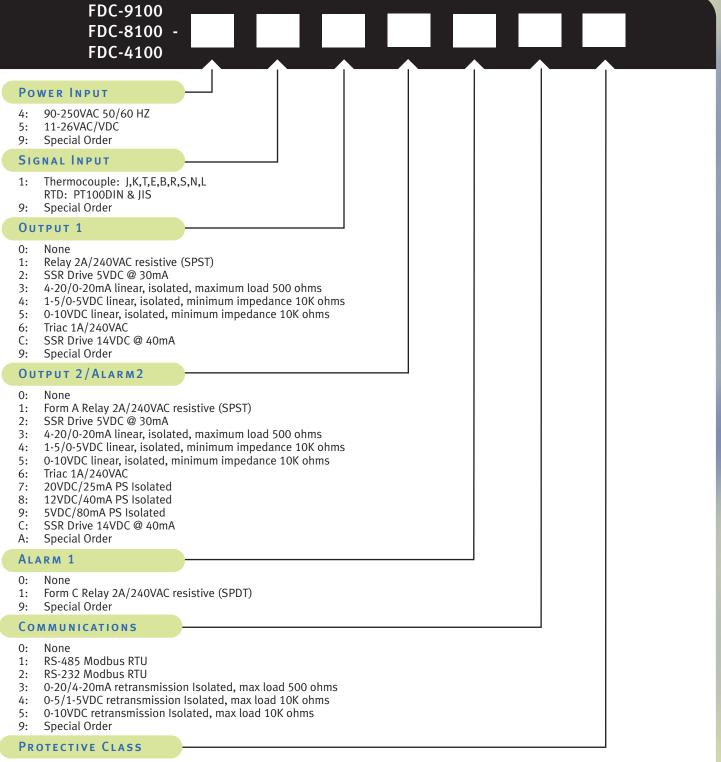
ENVIRONMENTAL AND PHYSICAL Operating Temperature: -10 to 50°C Storage Temperature: -40 to 60°C Humidity: 0-90% RH (non-condensing) Insulation: 20M ohms minimum (500VDC) Dielectric Strength: 2000VAC, 50/60Hz for 1 minute Shock Resistance: 200m/s<sup>2</sup> (20G) Vibration: 10-55Hz, 10m/s<sup>2</sup> for 2 hours Moldings: Flame retardant polycarbonate IP Panel Rating: IP50 (IP65 optional)

#### Dimensions\Weight:

9100: 1.99" (H) x 1.99" (W) x 4.12" (D) - 5.30z (150g) 8100: 3.77" (H) x 1.88" (W) x 2.55" (D) - 7.40z (210g) 4100: 3.77" (H) x 3.77" (W) x 2.08" (D) - 8.840z (250g)

# ORDERING INFORMATION

9100 = 1/16 DIN Controller. 8100 = 1/8 DIN Controller. 4100 = 1/4 DIN Controller. Enter a number in each box which corresponds to the specifications you want when ordering the FDC-100 series.



- 0: IP50 Standard
- 1: IP65 (Nema 4X)
- 2: Din Rail Mount w/IP50 (FDC9100 only)
- 3: Din Rail Mount w/IP65 (FDC9100 only)

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