FUTUREDESIGN CONTROLS

FDC-9300

FDC-9300 1/16 DIN Controller

Future Design's 9300 sets a new standard for 1/16 DIN controllers. Input sample rate of 10 scans per second and 3 Inputs (Universal, CT or analog remote SP and event input) come standard on the 9300. 18 bit A/D and 15 bit D/A offer the highest accuracy for industrial control applications. The 9300 can be supplied with up to 2 control outputs, alarm and communications (or analog retransmission), all in a 1/16 DIN package. The 9300 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 9300 can go anywhere and get the job done.

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

FDC-9300 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: Per table in order matrix
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: 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
Setpoint Display: 0.3" green LED, 4 digits
Status Indicator: Out1, ALM1, ALM2, ˚C, ˚F

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^2 (20G)
Vibration: 10-55Hz, 10m/s^2 for 2 hours
Moldings: Flame retardant polycarbonate
Dimensions: 1.99" (H) x 1.99" (W) x 3.46" (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 FDC-9300.

FDC-9300 [ ] [ ] [ ] [ ] [ ] [ ]

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 and Analog input *
4-20, 0-20mA, 0-1V, 0-5V, 1-5V, 0-10VDC
CT: 0-50Amp AC current transformer

Input 3 - 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/Alarm2

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

0: None
1: Form A Relay 2A/240VAC resistive (N.O)
2: Form B Relay 2A/240VAC resistive (N.C)
9: Special Order

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.
** Alternative between RS-232 and EI

UL Pending