Honeywell

DC1000 Series General Purpose OEM Controllers & Programmers

Low Cost Alternative to Control your Machine Process

The DC1000 family of microprocessor based controllers combine a high degree of functionality and reliability at a very low price, in 4 different formats : 1/16 DIN, 1/8 DIN, 3/16 DIN, 1/4 DIN.

They are ideal controllers for regulating temperature in a variety of applications, including :

- **Dryers.**
- **Semiconductor packaging / testing.**
- **Plastic processing.**
- **Packaging machinery.**
- **Painting and coating.**
- **Climatic chambers.**

The DC1000 family satisfies low cost basic control requirements and also provides advanced features such as motor position control, phase angle power control and Setpoint programming.

Dual displays and Bargraph.
Two 4 digits displays and one LED bargraph to display the PV and SP.

Easy to configure.
Two different configuration levels provide easy access to parameters. A 4-digit security code prevents unauthorized changes. Parameters can be hidden to the user to prevent mis-configuration of the unit.

Various Control algorithms.

- PID or ON/OFF control.
- Heat/Cool Algorithm.
- Motor Position control.
- Single phase or 3 phase control.

Programmer functionality.
2 programs available, each of 8 segments. Programs can be linked to form a single 16 segments program.

Extended Alarm capability.
Up to 3 different alarm outputs per instrument, 17 different alarm modes available.

Universal Power supply.
Operates on any line voltage from 85Vac to 265Vac at 50/60Hz.

Communication.
RS232 or RS485 communication.

Remote Setpoint capability.
Manual/Automatic modes.
Autotuning capability.

DC1010 : 1/16 DIN (48x48mm)

- Dual 4 digits display
- 4 keys.

DC1020 : 1/8 DIN (48x96mm)

- Dual 4 digits display
- Bargraph.
- 5 keys.

DC1030 : 3/16 DIN (72x72mm)

- Dual 4 digits display
- Bargraph.
- 5 keys.

DC1040 : 1/4 DIN (96x96mm)

- High functionalities General purpose controller.
- Dual 4 digits displa
- Bargraph.
- 5 keys.

Condensed Specifications

PV Input	Type of Input	TC (K, J, R, S, B, E, N, T, W, PL II, U, L)
		RTD (Pt100, JPt100, JPt50)
		Linear (4~20mA)
	Input Sampling Time	500 ms
	Input Resolution	14 bit (each)
Indication	PV/SP Indication	4-digit, 7 segment display
	Configuration Memory	Non-volatile memory (E^2PROM)
	Indication Accuracy	0.5%FS
Control Mode	Proportional Band (P)	0~200% (On/Off action at P=0)
	Integral Time (I)	0~3600 sec (PD action at I=0)
	Derivative Time (D)	0~900 sec (PI action at D=0)
	Cycle Time	0~150 sec (4~20mA 0, SSR 1, Relay 10)
	Dead Band Time	0~1000 sec (dead time compensation)
Output	Relay Output	Contact, SPDT, 3A/240VAC
	Voltage Output	Voltage Pulse, 20VDC/20mA
	Linear Output	4~20mA, 0~5V, 0~10V, 1~5V, 2~10V
	Motor Control Position Output	Servo motor valve control (open loop circuit)
	Phase Angle or Burst Fire Control	1φ SSR, 3φ SSR, 1φ SCR, 3φ SCR
Alarm	Outputs	3 Outputs (optional)
	Type	17 alarm modes available
	Timer	Switching alarm, continuouse or on delay timer alarm
Aux. Output	Output Signal	SP, PV, MV
	Type of Output	4~20mA, 0~20mA, 0~5V, 0~10V, 1~5V, 2~10V
2^{nd} Input(RSP)	Type of Input	4~20mA, 0~20mA, 0~5V, 0~10V, 1~5V, 2~10V
	Sampling Time	500 ms
Program	Pattern/Segment	2 pattern / 8 segment (each)
	Availability	Pattern link & repeat, program/segment end alarm
Communication	Type of Communication	RS-232, RS-485 ASCII Protocol
General Specifications	Rated Power Supply Voltage & Frequency	AC 85 ~ 265V, 50/60Hz
	Power Consumption	8VA
	Ambient Temperature	-25°C ~ 65°C (-13°F ~ 149°F)
	Ambient Humidity	50 ~ 85% RH (non condensing)

Product Dimensions

DC1010	
Front Face	48 x 48 x 94mm (1.89 x 1.89 x 3.7 in.)
Panel Cutout	45.5 x 45.5mm (1.79 x 1.79 in.)

DC1020	
Front Face	48 x 96 X 94mm (1.89 x 3.78 x 3.7 in.)
Panel Cutout	45.5 x 91mm (1.79 x 3.58 in.)

DC1030	
Front Face	72 x 72 x 94 mm (2.83 x 2.83 x 3.7 in.)
Panel Cutout	69.5 x 69.5mm (2.74 x 2.74 in.)

DC1040	
Front Face	96 x 96 x 94 mm (3.78 x 3.78 x 3.7 in.)
Panel Cutout	90 x 90mm (3.54 x 3.54 in.)

Industrial Measurement and Control

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