

DCP32

DigitroniK

Digital Control Programmer



CONTROLLERS

The DigitroniK DCP32 is a 2-loop high-function programmable controller supporting up to 19 program patterns to which thermocouple signals, resistance temperature detector (RTD) signals, DC voltage and DC current can be input. A temperature and relative humidity calculation model which controls temperature and relative humidity is selectable.

The DCP32 supports extensive digital I/O functions including 3 event outputs, 5 time events (optional) and 12 external switch inputs (8 optional). RS-485 communications and two auxiliary outputs can also be added on as options.

Specifications

General	Memory backup	RAM backed up by lithium battery
	Power supply voltage	90 to 264Vac, 50/60Hz
	Power consumption	30VA max.
	Ambient temperature	0 to 50°C
	Ambient humidity	10 to 90%RH (no condensation allowed)
Program Pattern	Weight	Approx. 900g
	No. of programs	19
	No. of segments	30/program
PV Input 1	Segment time	0 to 99h 59 min, or 0 to 99min 59s (selectable)
	Type	Thermocouple, RTD, DC voltage, DC current multi-range
	Sampling cycle	0.1s
PV Input 2	Bias	-1000 to +1000U (U: industrial unit)
	Type	Thermocouple, RTD, DC current multi-range
	Sampling cycle	0.1s
Indication & Setting	Bias	-1000 to +1000U (U: industrial unit)
	Indicator	2 or 4-digit, 7-segment LED (green or orange)
Control	Profile display	6 orange LED's
Output	Control mode	Program or constant value control
	PID auto-tuning	Automatic setting of PID value by limit cycle system + neural/fuzzy (2 degrees of freedom PID) & smart system
	No. of PID sets	8 (for program operation) + 1 (for constant value operation) (heat/cool: 4 + 1 respectively)
	MV limit %	Lower: -10.0 to upper limit Upper: Lower limit to 110.0
	MV change limit	0.0 to 10.0% / 0.1s
Event (EV) Output	No. of outputs	Event: 3, Time event: 5
	Type	Event: PV, DEV, DEV , SP, MV MFB and control status events, Time vent: Time and segment No. events
Remote Switch (RSW) Input	No. of inputs	12
	Type	Dry relay contact, or open collector
Auxiliary (AUX) Output	Function	Fixed: RUN, HOLD, RESET, ADV, program No. Variable: FAST, PV start, AT, AUTO/MANUAL, G.Soak cancel, direct/reverse action
	No. of outputs	1 (Not applicable to 2G and heat/cool models)
Communications	Type	PV, SP, DEV, MV, MFB
	Output	4 to 20mA, load resistance 600Ω max.
Parts (order separately)	Communications	RS-485
	Auxiliary	81446083-001 Hard dust-proof cover
	80446087-001 Soft dust-proof cover	
	81446084-001 Terminal cover	
81446431-001 Lithium battery		

Selection Guide

I II III IV V VI VII Example: P32A5G1AS001D0

Table	Selection	Availability		Description		
I	Basic Model No. P32A	↓	↓	Digital control programmer (2 loops)		
II	Control output	0D	○	—	Time proportional PID or ON/OFF (relay contact) + current output	
		2G	—	○	Position proportional PID (M/M drive relay contact) + current output	
		5G	○	—	Two continuous proportional PID (4 to 20mA) outputs	
		3D	—	○	Heat-cool, (two relay outputs) + current output	
		5K	—	○	Heat-cool, (two current outputs) + current output	
III	Function	1	○	○	Two input channels	
		2	○	○	Temperature and humidity computation	
IV	Power	AS	○	○	90 to 264Vac, 50/60Hz	
V	Auxiliary output	00	○	○	None	
		01	○	—	1 output	
VI	Option (1)	1	○	○	12 inputs	5 events
		2	○	○	12 inputs	5 events
VII	Option (2)	D0	○	○	With test data	
		T0	○	○	Tropicalization	

Dimensions

(unit:mm)

