DCP551B Mark II

DigitroniK
Digital Control Programmer

The DCP551B Mark II is a programmable controller (up to 99 program patterns), to which thermocouple, resistance temperature detector (RTD), DC voltage and DC current can be applied as input signals.

Features include 16 event outputs, 16 remote switch inputs, and optional communications input/output and auxiliary output.

Specifications

Program pattern	No. of programs	99
	No. of segments	99/program (2000 in total)
	Segment time	0 to 500/h or 0 to 500/min, 0.0 to 3000.0/s
	Sub-functions	Event, PID group, output limiter group, g. soak, PV shift and repeat setting (400 settings in total)
	PID groups	Group 0 (continuing from previous segment), groups 1 to 9 Group A (automatic changeover) ON-OFF control settable
	Output limiter group	Group 0 (continuing from previous segment), group 1 to 9 settable
	G. soak	Type (start point, end point, all) and g. soak width 0 to 1000U settable
	PV start	Type settable for each program (ascending, descending and bi-directional)
	Cycle	Cycle count No. settable for each program
	Pattern link	Program No. 0 to 99 (program 0 without link) settable for each program
	Tag	8 characters consisting of alphanumerics and symbols settable for each program
	Basic time accuracy	±0.01% (segment time setting = 0, repeat and cycle delays 0.1 sec. for each time)
PV input	No. of channels	1
	Type	Thermocouple, RTD, DC voltage, DC current multi-range
	Accuracy	±0.1% FS
	Sampling cycle	0.1s
	Bias	-1000 to +1000U (U: industrial unit)
Remote switch input (RSW)	No. of inputs	16
	Function	Fixed: RUN, HOLD, RESET, ADV, program No. Variable: RAMP-E, FAST, AT, AUTO/MANUAL, G. SOAK reset direct/reverse operation, auto-load, PV1/2 selection
	Type	Dry relay contact and open collector
Indication & setting	Indicator	2- or 5-digit, 7-segment LED (green or orange)
	Profile display	7 orange LEDs
	Message display	Output graph, deviation graph, event status and others
Control	Control mode	Program or constant value control
	Control output	5G and AUX CH1 & 2: 4 to 20mAdc; 6D: voltage; 8D: open collector
	Output accuracy	±0.1% FS
	PID auto-tuning	Automatic setting of PID value by limit cycle system
	No. of PID sets	16 for program operation
	MV limit (%)	Lower: -5.0 to upper limit Upper: lower limit to 105.0
	MV change limit	0.1 to 110.0%/0.1 s
	Direct/reverse	Changeover settable
Auxiliary (AUX) output		1 or 2 out of SP, dev., MV, PV1 and PV2
Event (EV) output	No of outputs	16
	Type	PV-, time-, code- and mode-based
Communications		RS-485, RS-232C
General	Memory backup	RAM backed up by lithium battery
	Power	100 to 240Vac, 50/60Hz
	Power consumption	25VA max.
	Ambient temperature	0 to 50°C
	Ambient humidity	10 to 90% RH (without condensation)
	Standards compliance	CE: EN61010-1,EN61326
	Mass	Approx. 1.5kg

Selection Guide

I II III IV V Example: **DCP551B10100**

Segment	Model No. selection		Description
I	Basic No.	DCP551B	Digital control programmer Mark II
II	PV input	1	1 channel
		2	2 channels
III	Option 1	0	Fixed number
IV	Option 2	0	None
		1	1 auxiliary output
		2	2 auxiliary outputs and RS-485, RS-232C communications
V	Option 3	00	None
		D0	With test data
		Y0	With traceability certification

Accessories (sold separately)

Model No.	Description
81446141	Soft dustproof cover
81446140-001	Lithium battery
SLP-P55J60	PC Loader software
SLP-P55J61	PC Loader software without loader cable

Input Types and Ranges

• Thermocouple

Range code	Input type	Range (°C)
16	K (CA)	-200.0 to +200.0
0		0.0 to 1200.0
1		0.0 to 800.0
2		0.0 to 400.0
3	E (CRC)	0.0 to 800.0
4	J (IC)	0.0 to 800.0
5	T (CC)	-200.0 to +300.0
6	B (PR13)	0.0 to 1800.0
7	R (RR13)	0.0 to 1600.0

Range code	Input type	Range (°C)
8	S (PR10)	0.0 to 1600.0
9	W (WRe5-26)	0.0 to 2300.0
10		0.0 to 1400.0
11	PR40-20	0.0 to 1900.0
12	N	0.0 to 1300.0
13	PL II	0.0 to 1300.0
14	Ni-Ni·Mo	0.0 to 1300.0
15	Gold-iron/Chromel	0.0 to 300.0K (K: Kelvin)

• Resistance temperature detector (RTD)

Range code	Input type	Range (°C)
64	JIS '89 Pt100 (IEC Pt100Ω)	-200.0 to +500.0
65		-200.0 to +200.0
66		-100.0 to +150.0
67		-50.0 to +200.0
68		-40.0 to +60.0
69		0.0 to 100.0
70		0.0 to 300.0
71		0.0 to 500.0

Range code	Input type	Range (°C)
96	JIS '89 Pt100	-200.0 to +500.0
97		-200.0 to +200.0
98		-100.0 to +150.0
99		-50.0 to +200.0
100		-40.0 to +60.0
101		0.0 to 100.0
102		0.0 to 300.0
103		0.0 to 500.0

• DC current/voltage

Range code	Input type	Range (programmable)
48	4 to 20mA	-19999 to +20000 (Decimal point position is variable.)
52	2.4 to 20mA	
49	0 to 10mV	
50	-10 to +10mV	
51	0 to 100mV	
128	4 to 20mA	

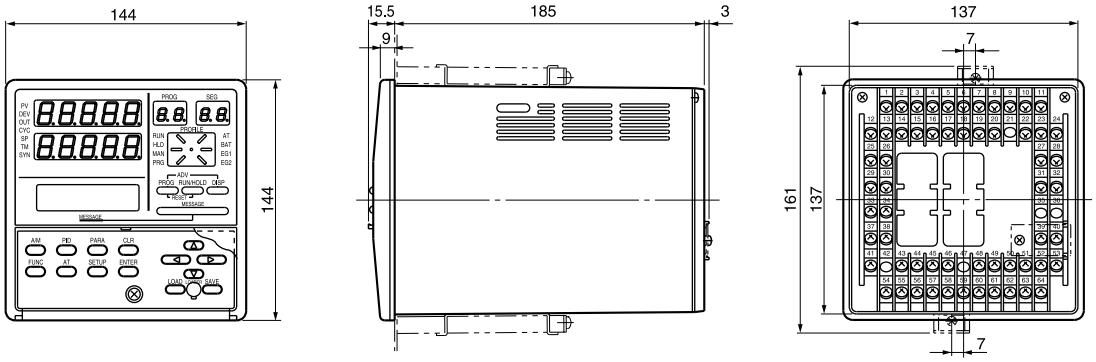
Range code	Input type	Range (programmable)
134	2.4 to 20mA	-19999 to +20000 (Decimal point position is variable.)
129	0 to 1V	
130	-1 to +1V	
131	1 to 5V	
132	0 to 5V	
133	0 to 10V	

• °F display is selectable.

Dimensions

(Unit: mm)

• DCP551B



• Panel cutout