

# Digital Control Programmer | DCP551 Mark II



The DCP551 Mark II is an advanced function programmable controller supporting up to 99 program patterns and a variety of input types: thermocouple, resistance temperature detector (RTD), DC voltage, and DC current.

The DCP551 Mark II supports 16 event outputs, 16 external switch inputs and a wide range of other functions as part of the standard specification. In addition, optional functions such as communications and auxiliary outputs are available.



### Specifications

|                        |                              |   |
|------------------------|------------------------------|---|
| Program                | Number of programs           | 99  |
|                        | Number of segments           | 99 segments per program, 2,000 per controller   |
| Input                  | Input type                   | Multi-range of inputs—thermocouple, resistance thermometer detector, DC voltage, and DC current |
|                        | Input Sampling cycle         | 0.1 s   |
| External switch input  | Number of inputs             | 16  |
|                        | Function                     | RUN, HOLD, RESET, ADV, program No., RAMP-E, FAST, AT, AUTO/MANUAL, etc.                         |
| Control                | PID control                  | Auto-tuning; automatic PID value setting by limit cycle method                                  |
| Output                 | Auxiliary output             | Type: PV, SP, deviation, MV, PV1, PV2   |
|                        | Output type                  | Current output   Voltage output   Open collector output   |
|                        | Control action               | Continuous PID   Time proportional PID   Time proportional PID                                  |
|                        | Number of PID groups         | 16 groups for program operation   |
|                        | PID auto-tuning              | Automatic PID value setting by limit cycle method   |
| Event output           | Event type                   | PV, deviation, w/ deviation standby, time event, code event, unique segment                     |
|                        | Communication specifications | RS-485, RS-232C   |
| General specifications | Rated power supply voltage   | 100 to 240 Vac 50/60 Hz   |
|                        | Power consumption            | 25 VA or less   |
|                        | Weight                       | 1.5 kg  |

### Input list

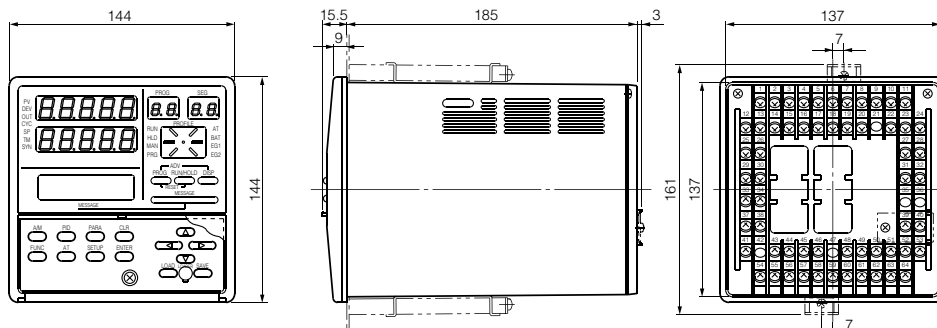
| Input type                      | Symbol                         | Input type         | Symbol                                    |
|---------------------------------|--------------------------------|--------------------|---|
| Thermocouple                    | K, E, J, T, B, R, S,           | DC current/voltage | 4 to 20 mA, 2.4 to 20 mA, 0 to 10 mA      |
|                                 | W (WRe5-26) PR40-20, N, PL II, |                    | -10 to +10 mV, 0 to 100 mV                |
|                                 | Ni-Mo-Ni, Chromel/Gold-iron    |                    | 4 to 20 mA, 2.4 to 20 mA, 0 to 1 V        |
| Resistance thermometer detector | JIS'89 Pt100, JIS'89 JPt100    |                    | -1 to +1 V, 1 to 5 V, 0 to 5 V, 0 to 10 V |

### Standards for input sensor

|                                 |   |
|---------------------------------|---|
| Thermocouple                    | K, E, J, T, B, R, S: JIS C 1602-1981<br>WRe5-26: material from Hoskins<br>PR40-20: material from Johnson Matthey<br>N: N.B.S. Monograph 161<br>PL II: material from Engelhard Industries (IPT568)<br>Ni-Mo-Ni: material from General Electric<br>Chromel/Gold-iron: material from Hayashi Denko |
| Resistance thermometer detector | Pt100, JPt100: JIS C 1604-1989  |

### External dimensions

(Unit: mm)



### Model No. configuration

Ex.: DCP551B10100

| Basic model No. | Appended No. | Number of PV input | Appended No. | Option | Addition | Description                                      |                                     |
|-----------------|--------------|--------------------|--------------|--------|----------|--|-------------------------------------|
| DCP551          | B            | 1                  | 2            | 0      |          | Digital Program Controller (single-loop control) |                                     |
|                 |              |                    |              |        |          | Mark II  |                                     |
|                 |              |                    |              |        |          | PV input CH1                                     |                                     |
|                 |              |                    | 2            | 0      |          | PV input CH2                                     |                                     |
|                 | 0 (fixed)    |                    |              |        |          |  |                                     |
|                 |              |                    | 0            | 1      | 2        | None   |                                     |
|                 |              |                    |              |        |          | Auxiliary output CH1                             |                                     |
|                 |              |                    |              |        |          | Auxiliary output CH2, communications             |                                     |
|                 |              |                    |              |        |          | 00   | None                                |
|                 |              |                    |              |        |          | D0   | Inspection certificate              |
|                 |              |                    |              |        |          | Y0   | Supports traceability certification |

### Optional parts (sold separately)

| Name   | Model No.    |
|--|--------------|
| Lithium battery set                            | 81446140-001 |
| Smart Loader Package (with dedicated cable)    | SLP-P55J60   |
| Smart Loader Package (without dedicated cable) | SLP-P55J61   |

1

DIGITAL CONTROLLERS

2

RECORDERS, INDICATORS

3

CONVERTERS

4

FLAME SAFEGUARD SYSTEM

5

ACTUATORS

6

SENSORS

7

GAS FLOW MEASUREMENT AND CONTROL PRODUCTS