

# DMC10

DigitroniK

## Distributed Multi-Channel Controller

The DigitroniK DMC10 is a module type 2 or 4-channel compact digital controller. Inputs are full multiple, supporting thermocouple, RTD, DC voltage and DC current inputs.

A side-face connector is used to connect modules, therefore, communication and power wiring is not required. "Quick-FITTER" Control, a high-speed recovery control function is equipped as standard. This function enables the quick recovery of setpoint temperature and overshoot suppression at the occurrence of disturbances.



CONTROLLERS

### Specifications

General	Memory backup	Non-volatile semiconductor memory	
	Rated power voltage	24Vdc	
	Power consumption	DMC10S: 5W max. DMC10E: 3W max.	
	Ambient temperature	0 to 50°C	
	Ambient humidity	10 to 90%RH (no condensation allowed)	
	Mounting	DIN rail or screw mount	
	Weight	200g	
PV Input	Input type	Thermocouple, RTD, DC voltage, DC current (see table 1)	
	PV readout accuracy	±0.5%FS ± 1 digit (under standard conditions)	
	Sampling cycle	0.5s	
	Input bias current	T/C input: 0.2µA max. RTD input: 1mA (typ) DC voltage input: 1V max. ... 0.2µV / Ωmax. 1 to 5V ... 1.5µV / Ωmax.	
Setting, Indication	Setting method	By dedicated PC loader (SLP-D10J20) or communication program	
	No. of set points	Max. 8 points (2CH model) or max. 4 points (4CH model) for each channel	
Control Output	Type of control output	Relay output	
	Control action	Time proportional PID or ON/OFF control	
	No. of PID groups	1 group/channel	
	Output limiter upper limit	Output limiter lower limit to 100.0%	
Event Output	Output limiter lower limit	0.0 to output limiter high limit	
	No. of outputs	4 (model with event output) 4 (with event output module DMC10E) Max. No. of outputs is 8	
Event Output	Event output types	Upper PV, Lower PV, Upper & Lower PV, Upper DEV, Lower DEV, Upper & Lower DEV, Upper DEV between channels, Lower DEV between channels, Upper & Lower DEV between channels, READY, MANUAL, Direct-Reverse Op, AT, Self-tuning, Loop diagnostics, Timer, Heater Line break/over-current, Heater short-circuit, Individual channel PV alarm, Individual channel alarm	
	Remote Switch Input	No. of input points	4 (model with external contact input) 4 (input from internal bus)
		Operation types	SP selection, RUN/READY changeover, AUTO/MANUAL changeover, auto-tuning start/stop, self-tuning operation, timer event start trigger, event output latch cancellation
Current Transformer Input	Input type	Dry contact or open collector	
	No. of outputs	2	
Communications		RS-485 (3-wire type)	

### Selection Guide

Table	Selection				Description
I	Basic Model No.	DMC10	↓	↓	Multi-channel controller
II	Type	S	○	○	Standard function
III	No. of channels	2	○	–	2 channels
		4	–	○	4 channels
IV	Wiring method	T	○	–	Terminal wiring
		C	○	○	Connector wiring
V	Control output	R	○	○	Relay output
		V	○	○	Voltage pulse output
VI	Option (1)	00	–	○	None
		01	○	–	4 Event outputs, 2 current transformers inputs
		02	○	–	4 External contact inputs, 2 current transformer inputs
		03	○	–	4 Event outputs, 2 continuous proportional PID (4-20mA 300Ω max.)
		04	○	–	4 External contact inputs, 2 continuous proportional PID (4-20mA 300Ω max.)
VII	Option (2)	00	○	○	None
		D0	○	○	Inspection certificate provided

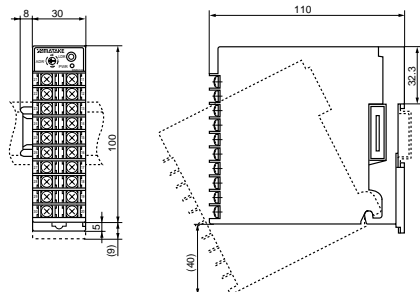
### Optional Devices

Model No.	Description
DMC10E4CR0000	Event output module, 4 channels, Connector wiring, Relay output
SLP-D10	PC Loader for DMC10 (Japanese version with cable)
81440792-001 *	Connector (4 units per box)
81440793-001	Cable for loader

\*Equivalent to MSTB 2.5/5-STF-5.08AV by Phoenix Contact

### Dimensions (unit:mm)

#### DMC10S2T



#### DMC10S C , DMC10E (Event output module)

