

DMC10D

DigitroniK

Distributed Multi-Channel Controller

The DigitroniK DMC10D is a module type 2 or 4-channel high-function digital controller. Inputs are full multiple, supporting thermocouple, RTD, DC voltage and DC current inputs.

Features include $\pm 0.3\%$ FS high accuracy, decimal point measurement for thermocouple input, heat/cool control, remote set point (SP) control and deviation control for stable controlling.



CONTROLLERS

Specifications

General	Memory backup	Non-volatile semiconductor memory
	Rated power voltage	24Vdc
	Power consumption	5W 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
	Sampling cycle	0.5s
	Accuracy	$\pm 0.3\%$ FS ± 1 digit, ($\pm 0.6\%$ FS ± 1 digit for minus range of T/C input)
	Input bias current	T/C: $0.2\mu\text{V} / \Omega$ max. RTD: $0.05\mu\text{V} / \Omega$ max. Vdc: Lower than 1V range: $\pm 0.2\mu\text{V} / \Omega$ max. 5V range: $\pm 0.2\mu\text{V} / \Omega$ max.
	Burnout	T/C and Vdc: Upscale RTD: Upscale (Resistor or A,B,C, 2 or 3 wire: Break) Downscale (A,B wire short, A,C wire short) DC current: Downscale
Setting	Setting range	-2000 to +10000 (by a dedicated PC loader)
Control Output		Time proportional PID, SPST (NO) relay contact output
		Time proportional PID, Voltage output (13Vdc $\pm 10\%$)
		Time proportional PID, current output (0-20mAdc, or 4-20mAdc)
Event Output	No. of outputs	2 points per 1 channel
	Output types	Relay output: SPST (NO) Voltage output: 13Vdc $\pm 10\%$
	Event types	Upper PV, Lower PV, upper & lower PV, upper DEV, lower DEV, upper & lower DEV, etc.
	Standby sequence	Yes or No selection
Heater Burnout Alarm (HB)		CT input
Remote Switch Input	No. of outputs	2 points per 1 channel
	Sampling cycle	0.1s
	Terminal voltage	13Vdc $\pm 10\%$
	Function	SP group selection, RUN/READY changeover, RUN/READY changeover, etc.

Optional Devices

Model No.	Description
SLP-D10J20	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

Selection Guide

I II III IV V VI VII Example: DMC10D2TR0100

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

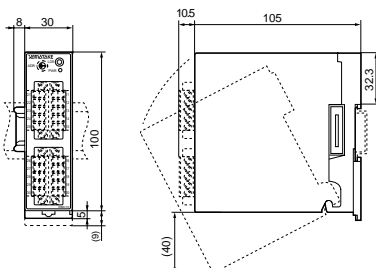
Output Type and Model Number

Output Type and Model Number	Cooling side output	Model No.	Control output terminal
Relay	Relay	DMC10D2□R0100	Heating side → MV1,2
		DMC10D2□R0300	Cooling side → EV3,4
Relay	SSR drive	DMC10D2□V0100	Heating side → EV3,4
		DMC10D2□V0300	Cooling side → MV1,2
Relay	Current	DMC10D2□R0300	Heating side → MV1,2
		DMC10D2□R0400	Cooling side → AUX1,2
SSR drive	Relay	DMC10D2□V0100	Heating side → MV1,2
		DMC10D2□V0300	Cooling side → EV3,4
SSR drive	SSR drive	DMC10D2□V0500	Heating side → MV1,2
		DMC10D2□V0600	Cooling side → EV3,4
SSR drive	Current	DMC10D2□V0300	Heating side → MV1,2
		DMC10D2□V0400	Cooling side → AUX1,2
Current	Relay	DMC10D2□R0300	Heating side → AUX1,2
		DMC10D2□R0400	Cooling side → MV1,2
Current	SSR drive	DMC10D2□V0300	Heating side → AUX1,2
		DMC10D2□V0400	Cooling side → MV1,2
Current	Current	DMC10D2□□0300	Heating side → AUX1
		DMC10D2□□0400	Cooling side → AUX2

Dimensions

(unit:mm)

• Connector model



• Terminal model

