

DMC10S

DigitroniK

Distributed Multi-Channel Controller

The DigitroniK DMC10S is a modular 2- or 4-channel compact digital controller. Input is full multiple, supporting thermocouple, RTD, DC voltage and DC current inputs.

Connectors are used to link modules, so wiring for communications and power is not required. "Quick-FITTER Control", a high-speed recovery control function is provided as standard. This function enables quick recovery of setpoint temperature and overshoot suppression at the occurrence of disturbances.



Specifications

Model No.		DMC10S2T	DMC10S2C	DMC10S4C
No. of control channels		2	2	4
Wiring method with external device		Terminal	Connector	Connector
PV input	Input type	Thermocouple, RTD, DC voltage and DC current		
	Indication accuracy	±0.5% FS ± 1 digit (under standard conditions)		
	Sampling cycle	0.5s		
	Setting method	By a dedicated PC loader (SLP-D10J20) or communications program		
Control output	Type of control output	Relay output	Voltage pulse output	
	Control action	Time proportional PID or ON/OFF	Time proportional PID or ON/OFF	
	No. of PID groups	1 group/channel	1 group/channel	
Event output	No. of outputs	4 (model with event output) 4 (with event output module DMC10E)		
	Operation 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 operation, 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 inputs	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 inputs		2		
Communications		RS-485 (3-wire type)		
General specifications	Power	24Vdc		
	Power consumption	5W max. (under standard conditions)		
	Mass	200g		

Selection Guide I II III IV V VI VII Example: DMC10S2TR0100

Segment	Model No. selection				Description
I	Basic No.	DMC10	↓	↓	Multi-channel controller
II	Type	S	○	○	Standard functions
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 transformer inputs
		02	○	–	4 external contact inputs, 2 current transformer inputs
		03	○	–	4 event outputs, 2 continuous proportional PID (4–20mA 300Ω max.), auxiliary outputs
		04	○	–	4 external contact inputs, 2 continuous proportional PID (4–20mA 300Ω max.), auxiliary outputs
VII	Option 2	00	○	○	None
		D0	○	○	With test data
		Y0	○	○	With traceability certification

• A circle (○) denotes availability.

Accessories (sold separately)

Model No.	Description
SLP-D10J20	Smart Loader Package

Input Types and Ranges

• Thermocouple

Range code	Input type	Range (°C)
01	K:CA	0 to 1200
02	K:CA	0 to 600
03	K:CA	0 to 400
04	K:CA	-200 to +400
05	J:IC	0 to 800
06	J:IC	-200 to +400
07	E:CRC	0 to 600

• RTD

Range code	Input type	Range (°C)
21	Pt100	-200 to +500
22	Pt100	0 to 200
23	Pt100	-50 to +100
24	JPt100	-200 to +500
25	JPt100	0 to 200
26	JPt100	-50 to +100
27	Pt100	-100 to +300

Range code	Input type	Range (°C)
28	JPt100	-100 to +300
29	Pt100	-50 to +150
30	JPt100	-50 to +150
31	Pt100	-75 to +175
32	JPt100	-75 to +175
33	Pt100	-100 to +200
34	JPt100	-100 to +200

• DC current/voltage

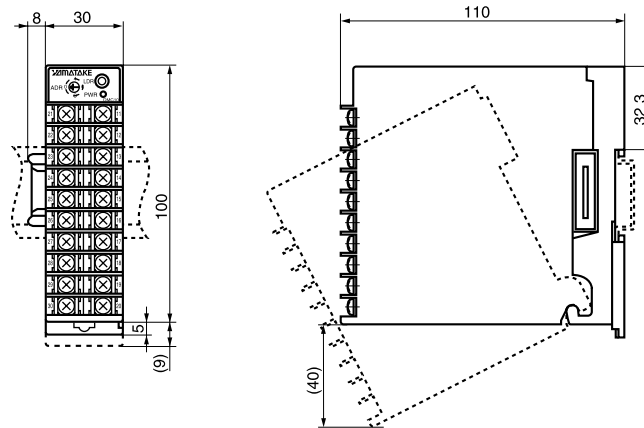
Range code	Input type	Range (programmable)
41	4 to 20mA	-2000 to +10000
42	1 to 5V	-2000 to +10000

Range code	Input type	Range (programmable)
43	0 to 5V	-2000 to +10000
44	0 to 1V	-2000 to +10000

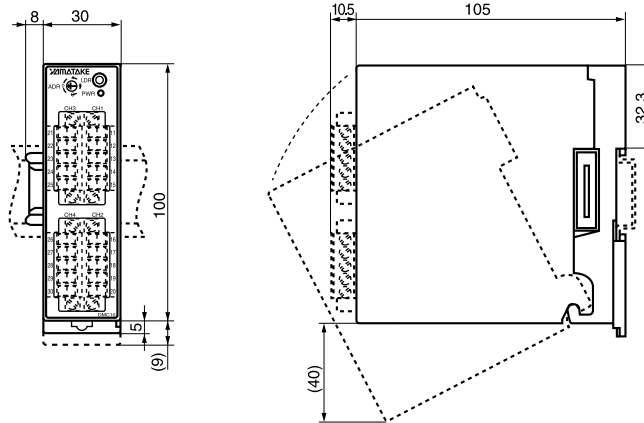
Dimensions

(Unit: mm)

• Terminal model DIN rail mounting



• Connector model DIN rail mounting



• Screw mounting

