



SDC15

Super DigitroniK Single Loop Controller

The DigitroniK SDC15 is a compact digital controller featuring group multi-range inputs and a PID control system using the new "RationalLOOP PID (Ra-PID)" and "Just-FITTER" algorithms.

Up to two control outputs (depending on the exact model) can be used, which are selectable from relay, voltage pulse, and current output.



DIGITAL CONTROLLERS

Specifications							
PV input	Type	Thermocouple, RTD, DC current, DC voltage (varies according to model)					
	Sampling cycle	0.5s					
Indication	Indication method	4-digit, 7-segment LED. (PV: Upper green display, SP: Lower orange display)					
	Indication accuracy	±0.5% FS ± 1 digit. In the negative area of the thermocouple, the accuracy is ±1% FS ± 1 digit (at an ambient temperature of 23 ± 2°C).					
Control output	Model No. Segment III	R0	V0	VC	VV	C0	CC
	Control output 1	Relay	Voltage pulse (for SSR drive)	Voltage pulse (for SSR drive)	Voltage pulse (for SSR drive)	Current	Current
	Control output 2	-	-	Current	Voltage pulse (for SSR drive)	-	Current
	Control method	1. ON/OFF control. 2. Control with fixed PID value (RationalLOOP PID). 3. Self-tuning					
Remote switch input	No. of inputs	2					
	Function	Up to 4 kinds of SP selections, RUN/READY selection, AUTO/MANUAL selection, Auto-tuning stop/start, etc.					
Event	No. of outputs	0 to 3 (according to the model)					
	Type	PV high limit, PV low limit, PV high/low limit, Deviation high limit, Deviation low limit, Deviation high/low limit, etc.					
Communications		RS-485					
Current transformer inputs		2					
General	Power	AC model: 100 to 240Vac 50/60Hz DC model: 24Vac 50/60Hz / 24 to 48Vdc					
	Power consumption	AC model: 12VA max. DC model: 7VA max. (24Vac), 5W max. (24 to 48Vdc)					
	Mass	S type: Approx. 200g (including socket) T type: Approx. 150g (including dedicated mounting bracket)					

Selection Guide										
Segment	Model No. selection						Description			
I	Basic No.	C15	↓	↓	↓	↓	Single loop controller			
II	Mounting	T	○	○	-	-	Panel mounting			
		S	-	-	○	○	Socket mounting (Socket ordered separately)			
III	Control output	Output 1					Output 2			
		R0	○	○	○	○	Relay (1a contact only for C15S)			-
		V0	○	○	○	○	Voltage pulse (for SSR drive)			-
		VC	○	○	-	-	Voltage pulse (for SSR drive)			Current
		VV	○	○	-	-	Voltage pulse (for SSR drive)			Voltage pulse (for SSR drive)
		C0	○	○	○	○	Current			-
		CC	○	○	-	-	Current			Current
IV	PV input	T	○	○	○	○	Thermocouple			
		R	○	○	○	○	RTD			
		L	○	○	○	○	DC voltage/current			
V	Power supply	A	○	-	○	-	100 to 240Vac 50/60Hz			
		D	-	○	-	○	24Vac 50/60Hz, 24 to 48Vdc			
VI	Option 1	EV (digital outputs)					2 CT inputs		2 digital inputs (DI)	RS-485 communications
		00	○	○	○	○	-	-	-	-
		01	○	○	○	○	3	-	-	-
		02	○	○	-	-	3	○	○	-
		03	○	○	-	-	3	○	-	○
		04	○	-	○	-	2 independent outputs	-	-	-
		05	○	-	-	-	2 independent outputs	○	○	-
06	○	-	-	-	2 independent outputs	○	-	○		
VII	Option 2	00	○	○	○	○	None			
		D0	○	○	○	○	With test data			
		Y0	○	○	○	○	With traceability certification			

* A circle (○) denotes availability.

Input Types and Ranges		
Range code	Input type	Range (°C)
1	K	-200 to +1200
2		0 to 1200
3		0 to 800
4		0 to 600
5		0 to 400
6		-200 to +400
9	J	0 to 800
10		0 to 600
11		-200 to +400
13	E	0 to 600
14	T	-200 to +400
15	R	0 to 1600
16	S	0 to 1600
17	B	0 to 1800
18	N	0 to 1300
19	PL II	0 to 1300
20	Wre5-26	0 to 1400
21		0 to 2300
24	DIN U	-200 to +400
25	DIN L	-100 to +800

Range code	Input type	Range (°C)
41	Pt100	-200 to +500
42	JPt100	-200to +500
43	Pt100	-200 to +200
44	JPt100	-200 to +200
45	Pt100	-100 to +300
46	JPt100	-100 to +300
51	Pt100	-50.0 to +200.0
52	JPt100	-50.0 to +200.0
53	Pt100	-50.0 to +100.0
54	JPt100	-50.0 to +100.0
63	Pt100	0.0 to 200.0
64	JPt100	0.0 to 200.0
67	Pt100	0 to 500
68	JPt100	0 to 500
84	0 to 1V	Scaling range is
86	1 to 5V	-1999 to +9999.
87	0 to 5V	The decimal point position can be changed variably.
88	0 to 10V	
89	0 to 20mA	
90	4 to 20mA	

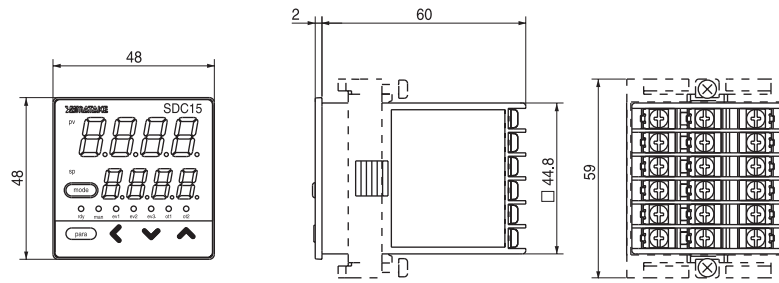
* °F display is selectable.

Accessories (sold separately)	
Model No.	Description
SLP-C35J50	Smart Loader software with user's manual and loader cable
SLP-C35J51	Smart Loader software without user's manual and loader cable
81446898-001	Terminal cover
81446391-001	Socket (for C15S)
QN206A	Current transformer (5.8mm dia.)
QN212A	Current transformer (12mm dia.)
81446442-001	Hard cover
81446443-001	Soft cover
81446403-001	Mounting bracket (supplied with C15T, usable also for C15S)
81441057-001	L-shape extension loader cable
81446918-001	Gasket (20 units)

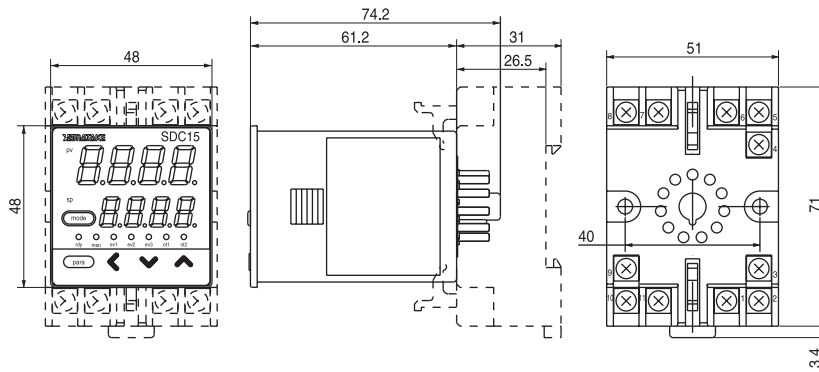
Dimensions

(Unit: mm)

• **Panel mounting type (T)**



• **Socket mounting type (S)**



• **Panel cutout**

