



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)					
	Standards compliance	CE: EN61010-1, EN61326 cUL: File No. E246616					
	Mass	S type: Approx. 200g (including socket) T type: Approx. 150g (including dedicated mounting bracket)					

Selection Guide

I II III IV V VI VII Example: C15TR0TA0000

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)	Range code	Input type	Range (°C)	
1	K	-200 to +1200	41	Pt100	-200 to +500	
2		0 to 1200	42	JPt100	-200 to +500	
3		0 to 800	43	Pt100	-200 to +200	
4		0 to 600	44	JPt100	-200 to +200	
5		0 to 400	45	Pt100	-100 to +300	
6		-200 to +400	46	JPt100	-100 to +300	
9	J	0 to 800	51	Pt100	-50.0 to +200.0	
10		0 to 600	52	JPt100	-50.0 to +200.0	
11		-200 to +400	53	Pt100	-50.0 to +100.0	
13	E	0 to 600	54	JPt100	-50.0 to +100.0	
14	T	-200 to +400	63	Pt100	0.0 to 200.0	
15	R	0 to 1600	64	JPt100	0.0 to 200.0	
16	S	0 to 1600	67	Pt100	0 to 500	
17	B	0 to 1800	68	JPt100	0 to 500	
18	N	0 to 1300	84	0 to 1V	Scaling range is	
19	PL II	0 to 1300	86	1 to 5V		-1999 to +9999.
20	Wre5-26	0 to 1400	87	0 to 5V		The decimal point position can be changed variably.
21		0 to 2300	88	0 to 10V		
24	DIN U	-200 to +400	89	0 to 20mA		
25	DIN L	-100 to +800	90	4 to 20mA		

* °F display is selectable.

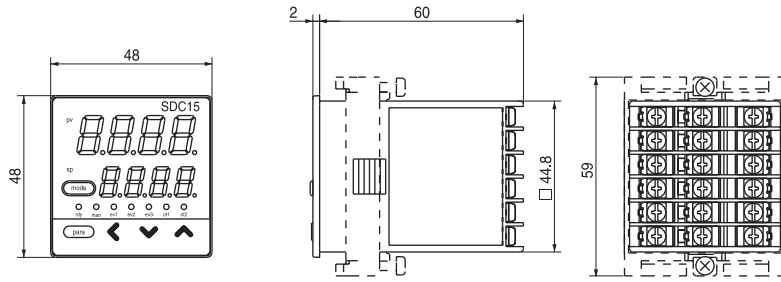
Accessories (sold separately)

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
81441057-001	L-shape extension loader cable
81446918-001	Gasket (20 units)

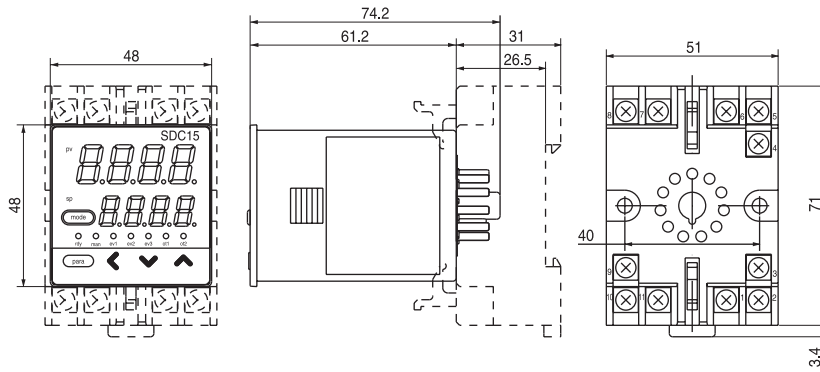
Dimensions

(Unit: mm)

• **Panel mounting type (T)**



• **Socket mounting type (S)**



• **Panel cutout**

