

SDC21

DigitroniK

Digital Indicating Controller

The SDC21 is a compact digital indicating controller with multi-range and PID auto-tuning systems for various inputs.

The controller enhances process visibility using remote switch input, control parameters, and local set points, which can be easily set using a PC loader.



CONTROLLERS

Specifications

General	Memory backup	Semiconductor non-volatile memory
	Power supply voltage	85 to 264Vac, 50/60Hz, or 24Vdc ± 5%
	Power consumption	18VA max.
	Ambient temperature	0 to 50°C
PV input	Ambient humidity	10 to 90%RH (no condensation allowed)
	Weight	Approx. 500g
	Type	Universal range: Thermocouple, RTD, DC, Voltage/Current
	Sampling cycle	0.5s
Indication & Setting	Bias	-100 to +100U (U: industrial unit)
	PV, SP indication	4-digit, 7-segment LED
	OK lamp	Control deviation value indicated by greenbelt
	No. of setpoints	1 to 2 points selectable
	Range	Selectable
	Indication accuracy	± 0.3%FS ± 1 digit (not specified for B in 0-260°C range)
Control Output	Setting method	Local setting, directly changeable
	No. of PID sets	2
	PID auto-tuning	Automatic setting of PID value by limit cycle method
	Output limiter %	Lower: 0 to upper limit (-10 to upper limit for 5G) Upper: Lower limit to 100 (lower limit to 110 for 5G)
	Control action	Direct/reverse electable
	SP ramp	0 to 999.9/min or 0 to 9999/min
Remote Switch (RSW) Input	No. of inputs	1
	Function	LSP selection (PID group No. interlock), READY/RUN changeover, timer start, and timer non-operation
	Type	Dry contact open collector transistor, OFF voltage: 5V ± 1V ON current: 5mA ± 2mA
Event (EV) Output	No. of outputs	1, 2 or 3
	Type	PV, SP, DEV, DEV , Alarm, Timer, Heater burnout (HB)
	Control mode	ON/OFF SPST relay contact
Auxiliary (AUX) Output	No. of outputs	1
	Type	PV, SP and OUT (one type selectable)
Communications	Output	4 to 20mA, load resistance: 600Ω max.
	Auxiliary	RS-485
	Parts (order separately)	QN206A Current transformer (5.8mm dia hole)
		QN212A Current transformer (12mm dia hole)
	81446083-001 Hard dust-proof cover	
	81446087-001 Soft dust-proof cover	
	81446084-001 Terminal cover	

Selection Guide

I II III IV V Example: C210DA00101

Table	Basic Model No.	Selection					Description					
		↓	↓	↓	↓	↓						
I	C21	↓	↓	↓	↓	↓	Digital indicating controller					
		0D	-	-	○	-	Time proportional PID : Relay contact 250Vac, 5A resistive load					
		6D	-	○	-	-	○	Time proportional PID: Voltage 22.5Vdc ± 10%				
II	Control output	5G	-	-	○	-	Continuous proportional PID (4 to 20mA, 600Ω max. resistive load)					
		A0	○	○	○	-	85 to 264Vac, 50/60Hz (Yamatake model)					
		D0	○	○	○	-	24Vdc ± 5%					
IV	Option (1)						RSW input	EV1 output	EV2 output	H.B. alarm	AUX output	RS-485
		01	○	○	○	○	○	○	-	-	-	-
		05	○	○	○	-	○	○	○	*	○	○
		06	○	○	○	-	○	○	○	*	○	○
		08	○	○	○	-	○	○	-	○	○	○
V	Option (2)	01	○	○	○	○	Not available					
		D1	○	○	○	○	With test data					
		T1	○	○	○	○	Tropicalization					

**H.B. is not provided for 5G model.

Dimensions

(unit:mm)

