Specifications

PV input	Type	Thermocouple, RTD, DC voltage, DC current.					
	Range	Refer to the input type and range table.					
	Sampling cycle	0.3 seconds					
Indication	Method	Digital 4-digit, 7-segment					
	Accuracy	±0.3%FS±1 digit					
Control output	Model No.	R0	V0	C0	VC	VV	CC
	Control mode	ON/OFF control, time proportional PID, current proportional PID					
	1st control output	Relay	Voltage pulse	Current	Voltage pulse	Voltage pulse	Current
	2nd control output	–	–	–	Current	Voltage pulse	Current
	No. of PID groups	4					
	PID auto-tuning	Automatic setting of PID values by limit cycle method (selectable from normal type, quick response type or stability tape)					
External switch input	No. of inputs	Max. 4 points					
	Function	LSP No., PID group No., READY/RUN changeover, timer start/stop, etc.					
Event	No. of outputs	Max. 3 points					
	Function	Selectable from process variable (PV), set point (SP), deviation value, absolute value, alarm, timer output, heater line break alarm, etc.					
Heater line break alarm	No. of inputs	2 points (optional)					
Analog output	No. of outputs	Max. 3 points					
	Type	Selectable from PV, SP or MV					
Communication	Communication system	RS-485					
	No. of connectable units	Max. 31 units					
	Communication speed	Max. 38400bps					
Additional processing		Inspection certificate and traceability certification supported					
General	Rated power supply	AC power supply model: 100 to 240Vac 50/60Hz					
	Power consumption	SDC25 AC power supply model: 12VA / SDC26 AC power supply model: 12VA					
	Standards compliance	CE marking (EN61010–1, EN61326) cUL (UL61010–1)*					
	Weight (mass)	SDC25: 250g, SDC26: 300g					

*. Varies depending on the model.

Dimensions

(Unit: mm)

● SDC25

● SDC26

Mounting bracket (sold separately)

Terminal screw M3
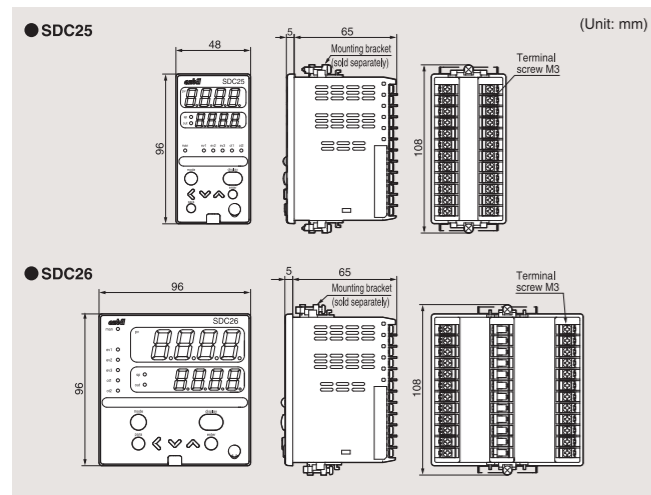
Software (sold separately)

Model No.	Name and specifications
SLP-C35J50	SLP-C35 standard loader for the SDC25/26 Version 2.0CD with loader cable
SLP-C35J51	SLP-C35 standard loader for the SDC25/26 Version 2.0CD, operation manual, without loader cable

Optional Devices (sold separately)

Model No.	Name and specifications
QN206A	Current transformer (5.8mm dia.)
QN212A	Current transformer (12mm dia.)
81446915-001	Hard cover for the SDC25
81446916-001	Hard cover for the SDC26
81446912-001	Terminal cover for the SDC25
81446913-001	Terminal cover for the SDC26
81409654-001	Mounting bracket (included with the controller)

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Other product names, model numbers and company names may be trademarks of the respective company.

Selection Guide

I II III IV V VI VII Example: **C25TR0UA1000**

Table	Selection		Description		
I	Basic model No.	C25T	Single Loop Controller (48x96mm size)		
		C26T	Single Loop Controller (96x96mm size)		
II	Control output		**Output 1**	**Output 2**	
		R0	Relay	–	
		V0	Voltage pulse	–	
		C0	Current	–	
		VC	Voltage pulse	Current	
		VV	Voltage pulse	Voltage pulse	
		CC	Current	Current	
III	Input type	U	Universal (full multi) input		
IV	Power supply	A	100 to 240Vac		
		D	24Vac/24Vdc		
V	Option (1)		**EV (DO)**	**Auxiliary output**	
		1	3 points	–	
		2	3 points	Current	
		4 *1	Independent 2 points	–	
		5 *1	Independent 2 points	Current	
VI	Option (2)		**CT**	**DI**	**Communication**
		0	–	–	–
		1	2 points	4 points	–
		2	2 points	4 points	RS-485
VII	Additional processing	0 □ *2	None		
		D □ *2	w/test data		
		Y □ *2	w/traceability certification		

*1. Not selectable with the DC power supply model.
*2. Standards compliance
　□=0: CE marking
　□=A: CE marking, cUL

Input Type and Range

Sensor	Sensor type	Range (°C)	Sensor	Sensor type	Range (°C)
Thermocouple	K	–200 to +1200	RTD	JP100	–100.0 to +300.0
		0 to 1200		Pt100	–100.0 to +200.0
		0.0 to 800.0		JPt100	–100.0 to +200.0
		0.0 to 600.0		Pt100	–100.0 to +150.0
		0.0 to 400.0		JP100	–100.0 to +150.0
		–200.0 to +400.0		Pt100	–50.0 to +200.0
		–200.0 to +200.0		JP100	–50.0 to +200.0
	J	0 to 1200		Pt100	–50.0 to +100.0
		0.0 to 800.0		JP100	–50.0 to +100.0
		0.0 to 600.0		Pt100	–60.0 to +40.00
		–200.0 to +400.0		JP100	–60.0 to +40.00
	E	0.0 to 800.0		Pt100	–40.0 to +60.0
		0.0 to 600.0		JPt100	–40.0 to +60.0
	T	–200.0 to +400.0		Pt100	–10.00 to +60.00
	R	0 to 1600		JPt100	–10.00 to +60.00
	S	0 to 1600		Pt100	0.0 to 100.0
	B	0 to 1800		JPt100	0.0 to 100.0
	N	0 to 1300		Pt100	0.0 to 200.0
	PL II	0 to 1300		JPt100	0.0 to 200.0
	WRe5-26	0 to 1400		Pt100	0.0 to 300.0
	WRe5-26	0 to 2300		JP100	0.0 to 300.0
	Ni-NiMo	0 to 1300		Pt100	0.0 to 500.0
	PR40-20	0 to 1900		JP100	0.0 to 500.0
	DIN U	–200.0 to +400.0	Linear	0 to 10mV	
	DIN L	–100.0 to +800.0		–10 to +10mV	
	Golden iron chromel	0.0K to 360.0°K		0 to 100mV	Scaling in the range of –1999 to +9999 Decimal point position changeable
RTD	Pt100	–200.0 to +500.0		0 to 1V	
	JPt100	–200.0 to +500.0		1 to 5V	
	Pt100	–200.0 to +200.0		0 to 5V	
	JPt100	–200.0 to +200.0		0 to 10V	
	Pt100	–100.0 to +300.0		0 to 20mA	
				4 to 20mA	

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azbil

Single Loop Controller SDC25/26

CE marking compliant (EN61010-1 / EN61326)

Two Process Controller Models with Two Levels of Controllability

FineStyle

The new standard for controllers.
New easy-to-use functions based on leading-edge concepts.

Integration of a new algorithm, high accuracy (±0.3%FS) and sampling cycle 0.3 seconds.
A new type of controller designed for ever-changing demands of industry.

Hardware

Ideal design and style with easy-to-use functions.

Simple design and compact

Simple design not available in conventional models.
The world's shortest depth of 65mm. Thin bezel of only 5mm. Just fits into narrow mounting locations.

Only 5mm thick bezel and easy-to-see panel mounting

5mm → ← 65mm →

Rubber keys

Finger-friendly rubber buttons adopted.
Unique design enhances ease of operation.

Operation & Monitoring

Easy-to-see display and reliable operability assured simultaneously.

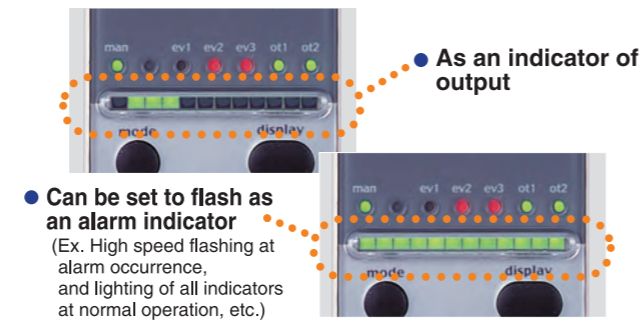## The mode button for easy switching of operational parameters

The following operations can be easily and quickly accessed by pressing the mode key:
● AUTO/MANUAL, RUN/READY, contact latch cancellation, etc.

AUTO MANUAL …etc
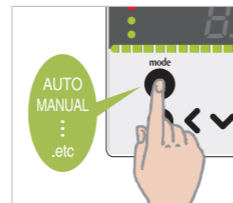
Powerful, multi-status indicator

Multi-status analog lamp indicator is assignable to several parameters (i.e. alarms, outputs, etc.)

● As an indicator of output

● Can be set to flash as an alarm indicator
(Ex. High speed flashing at alarm occurrence, and lighting of all indicators at normal operation, etc.)

The wide variety of inputs and outputs of the SDC25/26 can be used to fulfill various application requirements.

Heat/cool function
Heat/cool control with 2nd control output or event output (D/O).

Maximum 3 analog outputs
PV, MV, etc. can be freely assigned.

Digital inputs (D/I) (optional)
Setting of values or RUN/READY switching can be performed remotely by optional 4-point digital input.

A 2nd control output available
Flexible 2nd output can be used for heat/cool control or an array of application requirements. (Current, voltage pulse)

SDC26

3 event outputs (D/O)
Three event outputs (D/O) are available as standard function.

Communications (optional)
An optional RS-485 (3-wire system) is available.

All models connectable to a PC loader
Various settings and monitoring can be performed from a PC loader.

Control

Revolutionary control logic, not just PID and fuzzy logic.

Greatly improved controllability ensured with a brand new algorithm

Stable control that is unaffected by disturbances has been realized by including the highly accurate "RationaLOOP PID" control logic and the "Just-FiTTER" algorithm which is very effective in suppressing overshoot.

● **RationaLOOP PID**
Hunting is suppressed almost immediately with the addition of RationaLOOP PID to the conventional PID.
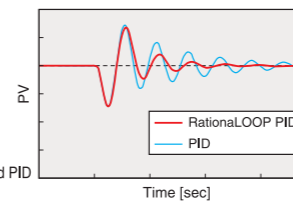
Difference between RationaLOOP PID and PID

PV
RationaLOOP PID
PID
Time [sec]

● **Just-FiTTER**
Just-FiTTER is an algorithm that restricts overshoot within the disturbance response and step response functions.

Just-FiTTER at work

Just-FiTTER coefficient: Small
Just-FiTTER coefficient: Large
PV
Time [sec]
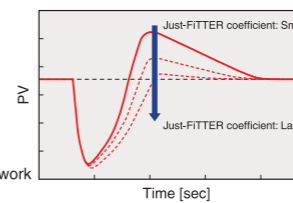
Reliable heat/cool control

Heat/cool control can be customized with the SDC25/26. Direct or reverse control outputs can be assigned easily.

(Ex.) • Control output at heat control → Output 1
• Control output at cool control → Output 2

Control output calculation %
Heating → Output 1
Cooling → Output 2

<Heat/cool control function is selected by model number.>
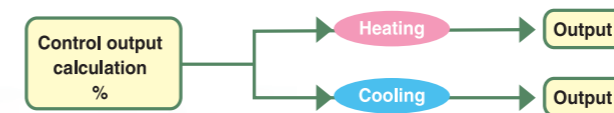
Software

Software functionality provides additional application flexibility.

New methods of installation, operation, and monitoring utilizing a wide variety of software functions

The SDC25/26 can be conveniently connected to a computer via our PC loader software (connection via dedicated connector cable). The software contains various functions such as parameter settings, trend monitoring and CSV output of acquisition data.
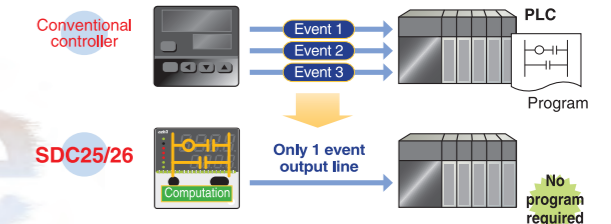
Easy hook-up is available with a dedicated connector cable.

Setup display

Monitor display

Dedicated cable

Data acquisition RS-485
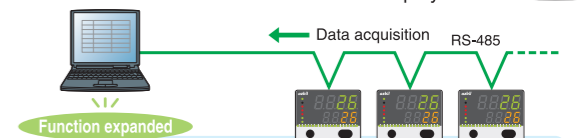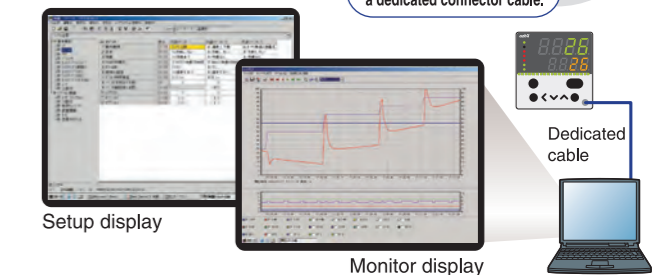
Function expanded
Simple data logger function
● Max. 16 channel acquisition points ● Import and display CSV files.

Up to 3 configurable event outputs available as a standard option

Up to 3 event output points are available with the SDC25/26. Additionally, a maximum of 5 internal event points is also provided. These internal events can be assigned to the 3 event outputs using logic operation. The wiring reduction achieved by utilizing these internal events results in labor cost savings for wiring to a PLC or other devices in the system.

Conventional controller
Event 1
Event 2
Event 3
PLC
Program

SDC25/26
Computation
Only 1 event output line
No program required

FineStyle