Specifications

PV Input	Type	Input group selectable by model No.(thermocouple, RTD, linear)
	Range	Refer to the PV input type and range table.
	Sampling cycle	500 ms
	Indication accuracy	±0.5 %FS±1 digit
Control Output	Control mode	ON/OFF, time proportional PID, current proportional PID
	Control action	Selectable by model No. • Relay output: 1c (SPDT) 250 Vac 3 A • Voltage pulse output: 19 Vdc±15 % Internal resistance 82 Ω Allowable current 24 mAdc max. • Current output: 0 to 20 mAdc, 4 to 20 mAdc (selectable by setting)
Event Output	No. of outputs	3 points
	Control action	Relay output: 1a (SPST)
	Type	PV, DEV, loop diagnosis, timer, heatercircuit break and others (32 types in total.)
Digital Input	No. of inputs	2 points
	Function	Auto/Manual changeover, Run/Ready changeover, set point changeover, latch cancellation plus others (18 types in total.)
CT Input	Applicable current transformer	2 CT inputs max. Separate purchase: CT models QN206A (Φ5.8), QN212A (Φ12)
Communication	Communication system	RS-485 (3-wire system)
	No. of connectable units	Max. 31 units
	Communication speed	Max. 38,400 bps
Loader Port	Connection	Dedicated cable
	Connection length	Max. 2 m
General	Ambient temperature	0 to 50 ℃
	Power supply voltage	AC power supply model: 100 to 240 Vac DC power supply model: 24 Vac, 24 to 48 Vdc
	Power consumption	AC power supply model: 12 VA max. DC power supply model: 7 VA max.(24 Vac) 5 W max.(24 to 48 Vdc)
	Standards compliance	CE marking (EN61010-1, EN61326) cUL (UL61010-1) Note: Depends on the model.
	Structure	IP66 (NEMA 4) (front panel)
	Mass	Panel mounted type: 150 g (including dedicated mounting bracket) DIN rail mounted type: 200 g (including socket)

Model selection

Ⅰ Ⅱ Ⅲ Ⅳ Ⅴ Ⅵ Ⅶ Example: **C15TR0TA0000**

Ⅰ Basic Model No.	Ⅱ Mounting	Ⅲ Control output	Ⅳ PV input	Ⅴ Power supply	Ⅵ Option (1)	Ⅶ Option (2)	Description	
C15							Single Loop Controller	
	T						Panel mounting	
*4	S						Socket mounting	
							Output 1	Output 2
	*2	RO					Relay, (1a contact only for C15S)	–
		VO					Voltage pulse	–
	*1	VC					Voltage pulse	Current
	*1	VV					Voltage pulse	Voltage pulse
		CO					Current	–
	*1	CC					Current	Current
			T				Thermocouple	
			R				RTD	
			L				DC voltage/current	
				A			100 to 240 Vac	
				D			24 to 48 Vdc/24 Vac	
					00		–	
					01		Event relay 3 points	
					*1 *3 02		Event relay 3 points, DI 2 inputs, CT 2 inputs	
					*1 *3 03		Event relay 3 points, DI 2 inputs, CT 2 inputs, RS-485	
					*5 *6 04		Event relay 2 points	
					*1 *3 *5 *6 05		Event relay 2 points, DI 2 inputs, CT 2 inputs	
					*1 *3 *5 *6 06		Event relay 2 points, DI 2 inputs, CT 2 inputs, RS-485	
						O_*	None	
						D_*	w/ Inspection certification	
						Y_*	w/ traceability certification	

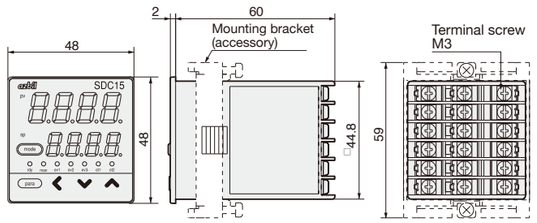
*1 Can not be selected for the model C15S
*2 Only 1a contact applicable for the model C15S
*3 Current transformer sold separately
*4 Socket sold separately
*5 Can not be selected for the DC model
*6 Independent relay contact

Note: For models with Korean S Mark certification, contact the azbil Group.

* Standards compliance
_=0: CE marking
_=A: CE marking, cUL

Dimensions

(Unit: mm)



Input Types and Ranges

Sensor	Sensor type	Range (℃)
Thermocouple	K	–200 to +1200
		0 to 1200
		0.0 to 800.0
		0.0 to 600.0
		0.0 to 400.0
		–200.0 to +400.0
	J	0.0 to 800.0
		0.0 to 600.0
		–200.0 to +400.0
	E	0.0 to 600.0
	T	–200.0 to +400.0
	R	0 to 1600
	S	0 to 1600
	B	0 to 1800
	N	0 to 1300
	PL Ⅱ	0 to 1300
	WRe5-26	0 to 1400
		0 to 2300
	PR40-20	0 to 1900
	DIN U	–200.0 to +400.0
	DIN L	–100.0 to +800.0

Sensor	Sensor type	Range (℃)
RTD	Pt100	–200 to +500
	JPt100	–200 to +500
	Pt100	–200 to +200
	JPt100	–200 to +200
	Pt100	–100 to +300
	JPt100	–100 to +300
	Pt100	–50.0 to +200.0
	JPt100	–50.0 to +200.0
	Pt100	–50.0 to +100.0
	JPt100	–50.0 to +100.0
	Pt100	0.0 to 200.0
	JPt100	0.0 to 200.0
	Pt100	0 to 500
	JPt100	0 to 500
Linear	0 to 1 V	Scaling in the range of –1999 to +9999
	1 to 5 V	
	0 to 5 V	
	0 to 10 V	
	0 to 20 mA	
	4 to 20 mA	

Note 1. The accuracy of the B thermocouple is ±5 %FS for a range of 260 ℃ or less, and ±1 %FS for 260 ℃ to 800 ℃.
2. For ranges containing a decimal point, tenths are displayed on the line underneath.

■ Standards for input sensors

Thermocouple
K, J, E, T, R, S, B, N: JIS C 1602-1995 PL Ⅱ: material from Engelhard Industries (ITS90)
WRe5-26: ASTM E988-96 (Reapproved 2002) DIN U, DIN L: DIN 43710-1985

Resistance temperature detector
Pt100: JIS C 1604-1997 JPt100: JIS C 1604-1989

Software (sold separately)

Model No.	Name & Specification
SLP-C35J50	Smart loader package (loader cable included)

Optional Devices (sold separately)

Model No.	Name & Specification
81446898-001	Terminal cover
81446391-001	DIN rail terminal socket (for model C15S)
QN206A	Current transformer (5.8mm dia.)
QN212A	Current transformer (12mm dia.)
81446442-001	Hard cover
81446443-001	Soft cover
81446403-001	Mounting bracket (included with model C15T, useable for model C15S)

Please read "Terms and Conditions" from the following URL before ordering and use.
https://www.azbil.com/products/factory/order.html

Azbil Corporation
Advanced Automation Company

1-12-2 Kawana, Fujisawa
Kanagawa 251-8522 Japan

URL: https://www.azbil.com

1st Edition : Issued in Mar. 2003–PP
11th Edition : Issued in Apr. 2020–SO

CP-PC-1404E

azbil

Single Loop Controller

Model C15

Proven high reliability with 1,000,000+ units used worldwide

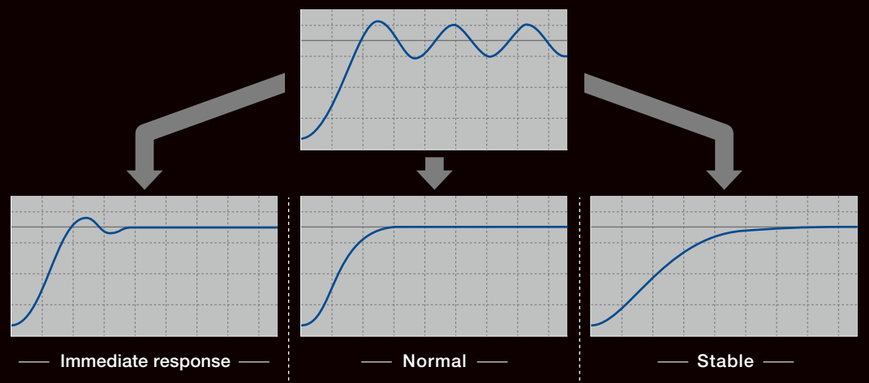
3 types of auto-tuning for improved control of a wide variety of equipment

User-friendly & easy-to-use general-purpose controller

Simple setup for heater control. PC loader provides easy monitoring of control situation.

01 Three selectable types of auto-tuning

Choose the type that best suits your equipment: priority on quick response, on stability, etc.



Typical applications

Auto-tuning for quick response
Bonders, reflow ovens, packaging machines, etc.

Standard auto-tuning
Cleaners, chillers, food & beverage processing machines, etc.

Auto-tuning for stability
Combustion/electric/vacuum furnaces & ovens, etc.

05 Large, bright display is easy to see

SP & PV display is clear and bright. LEDs indicate RUN/READY state, event/alarm output, and control output state, so you understand the situation at a glance.

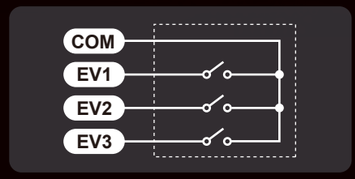
03 Many event types & up to 3 contact outputs

A wide variety of events to choose from, and as many as 3 contact outputs

Event types

3 types of loop diagnosis — PV high / low / high & low limits — SP high / low / high & low limits — PV deviation high / low / high & low limits — Heater burnout / short-circuit / over-current alarm (2-point detection for 3-phase power) — and more

3 EV outputs



Loop diagnosis events

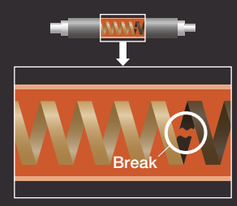
The loop diagnosis event settings allow consideration of the amount of measured PV change relative to the amount of MV (control). Three detection types are provided, including heater disconnection, solid-state relay (SSR) short-circuit, and detached or not inserted temperature sensor

Short-circuit

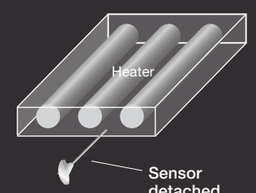
Short-circuit of an internal component

SSR

Heater element break



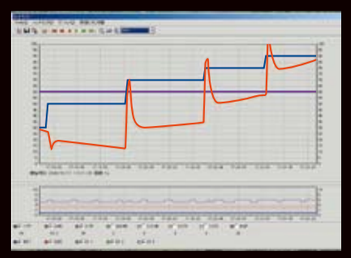
Detached / non-inserted temperature sensor



02 PC loader

Useful in a variety of situations: when setting parameters, making trial run adjustments, checking operation, replacing parts, etc.

Setup screen

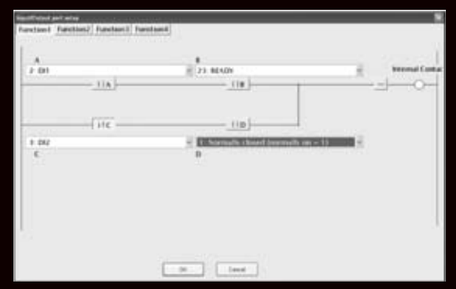


Monitor screen

06 Compact size

Reliability engineered into a mere 60 mm

04 Event configuration



There are 5 internal event points that can be assigned to 3 event contacts after calculation.
This reduces the wiring for event contact outputs.

Network Instrumentation Module

Smart Device Gateway* Model NX-SVG

The model NX-SVG is a multi-vendor IoT gateway that links data between devices connected by Ethernet and RS-485 without the need to create communication programs. Using it in combination with model C15 reduces system development time significantly.

* A communication gateway that allows the interchange of information between various kinds of control device without programming, enabling smarter development work.