

SERIES SD32

- DIN Size 48 (H) × 48 (W) × 100 (D) mm
- Light Body Type (190g)

SPECIFICATIONS

Indication:	Digital LED
Indicating Tolerance:	±1.5% FS + 1-digit (Thermocouple input) ±1.0% FS + 1-digit (R.T.D. input)
Input:	J, K, L (DIN 43710)
Thermocouple:	J, K, L (DIN 43710)
Standard Setting	
Temperature Compensation Range:	5~45°C
Input Resistance:	200kΩ
External Resistance:	100Ω max.
R.T.D.:	Pt100
Amperage:	2mA
Lead Wire Tolerable Resistance:	2Ω max. / wire
Voltage:	0~10mv DC linear Input Impedance = 200kΩ min.
Current:	4~20mA DC linear Receiving Impedance = 250Ω
Power Consumption:	Approx. 3VA
Operating Ambient Temperature Range:	-10~+50°C
Operating Ambient Humidity:	90% RH max.
Power Supply:	See Ordering Information.
Insulation Resistance:	500V DC, 20MΩ min. between input and power supply terminals
Dielectric Strength:	1 min. at 500V AC between input and power supply terminals
Installation:	Flush in panel
External Dimensions:	48 (H) × 48 (W) × 100 (D) mm
Panel Cutout:	45 (H) × 45 (W) mm
Weight:	Approx. 190g



ORDERING INFORMATION

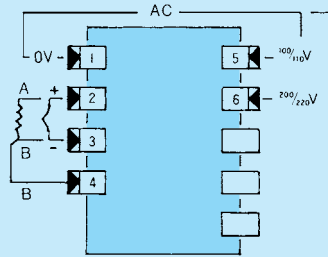
ITEMS	CODE	SPECIFICATIONS
SERIES	SD32-	Digital Indicator, 48 (H) × 48 (W) mm DIN
INPUT	1	Thermocouple, Input Resistance: 200kΩ
	2	R.T.D. (Pt100), Amperage: 2mA
	3	Voltage: 0~10mV DC Linear, Input Impedance: 200kΩ min.
	4	Current: 4~20mA DC Linear, Receiving Impedance 250Ω
	9	Others (Please consult before ordering.)
POWER SUPPLY	11-	100~110V / 200~220V AC ±10%, 50 / 60Hz
	12-	110~120V / 220~240V AC ±10%, 50 / 60Hz
	99-	Others (Please consult before ordering.)
INPUT STANDARD	N	None
	J	JIS
	F	JIS (New Pt100-JIS)
	D	DIN
	A	ANSI
	X	Others (Please consult before ordering.)
TYPE OF INPUT	J	Thermocouple (J)
	K	Thermocouple (K)
	Q	Thermocouple (L) DIN-43710
	P	R.T.D. (Pt100)
	L	Linear — Voltage & Current Inputs
	X	Others (Please consult before ordering.)
MEASURING RANGE	□□□	See Measuring Range Codes.
LEGEND	N	No Legend
	C	°C Temperature
	F	°F Temperature
	X	Others (Please consult before ordering.)
REMARKS	0	Without
	9	With (Please consult before ordering.)

MEASURING RANGE CODES

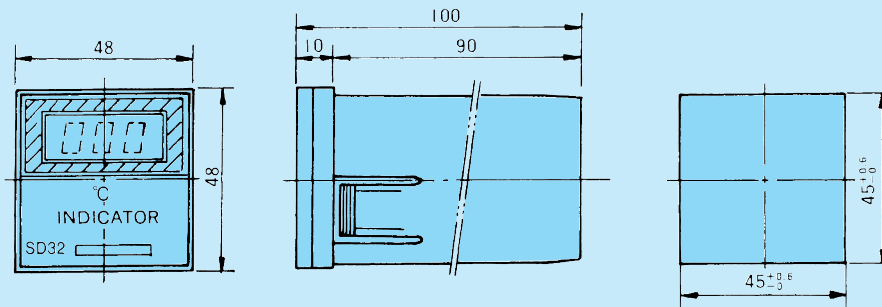
INPUT	RANGE	CODE	LEGEND
R.T.D. (Pt100)	-99 ~ 99 °C	576	C
	0 ~ 99.9°C	781	C
	0 ~399 °C	792	C
Thermo- couple	J 0 ~399 °C	792	C
	L 0 ~399 °C	792	C
	K 0 ~399 °C	792	C
	K 0 ~999 °C	874	C

INPUT	RANGE	CODE	LEGEND
R.T.D. (Pt100)	0~399°F	792	F
	0~799°F	871	F
	0~799°F	871	F
Thermo- couple	J 0~799°F	871	F
	K 0~999°F	874	F
Voltage / Current	0~ 99.9	781	
	0~499	795	
	0~999	874	

TERMINAL ARRANGEMENT

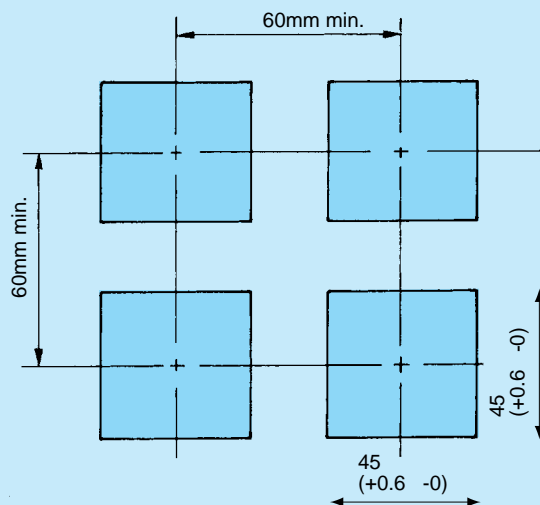


EXTERNAL DIMENSIONS & PANEL CUTOUT



Unit : mm

CUTOUT FOR TWO OR MORE UNITS INSTALLED TOGETHER



Unit : mm

⚠ Warning

- This product is designed for the control of temperature, humidity and other physical values for the general industrial equipment. It is not to be used for any purpose which regulates the prevention of serious effects on human life or safety. No warranty, express or implied is valid if used without proper safety measures.

⚠ Caution

- If the possibility of loss or damage to your system or property as a result of failure of any part of the process exists, proper safety measures must be made before the instrument is put into use as to prevent the occurrence of trouble.



ISO 9001



ISO14001

(The contents of this brochure are subject to change without notice.)

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SERIES SR34

- DIN Size 48 (H) × 48 (W) mm
- Digital Setting
- Easy Installation



SPECIFICATIONS

Display Type		Control Output:	
SR34:	No display	Contact:	240V AC, 1A / inductive load, 2.5A / resistive load
Setting Type=Accuracy:	Digital / ±1.5% FS	SSR Voltage:	12V DC, 20mA max. (reverse action)
Input:		Power Consumption:	Approx. 3VA
R.T.D.:	Pt100	Operating Ambient	
Amperage:	2mA	Temperature Range:	-10~50°C
Lead wire tolerable		Operating Ambient	
resistance:	2Ω max. / wire	Humidity:	90% RH max.
Thermocouple:	J, K, L, R, S	Insulation Resistance:	500V DC, 20MΩ min.
Cold junction temperature			between the input and power
compensation range:	5~45°C		supply terminals
Input resistance:	200kΩ	Dielectric Strength:	1 min. at 500V AC
External resistance:	100Ω max.		between the input and power
Burnout circuit:	Standard		supply terminals
Control Mode:		External Dimensions:	48 (H) × 48 (W) × 100 (D) mm
On / Off=Sensitivity (S)	0.3% FS fixed		(90mm behind the panel)
Proportioning=		Installation:	Lock-in mounting type
Proportional Band (PB):	4% FS fixed		(no mounting hardware necessary)
Manual reset (MR):	Adjustable from front face	Panel Cutout:	45 (H) × 45 (W) mm
Proportioning cycle:	Approx.30 sec. (Contact output)	Panel Thickness:	1.0~3.5mm
	Approx. 3 sec. (SSR voltage)	Weight:	Approx. 210g

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ORDERING INFORMATION

ITEMS	CODE		SPECIFICATIONS
SERIES	SR34-		Digital Temperature Controller Without Display
INPUT	1		Thermocouple, Input Resistance: 200kΩ
	2		R.T.D. (Pt100), Amperage: 2mA
	3		Voltage, 0~10mV DC linear, Impedance: 200kΩ
	4		Current, 4~20mA DC linear, Receiving Impedance: 250Ω
	9		Others (Please consult before ordering.)
CONTROL MODE	01		Proportioning (PB): 4% FS, w / Manual reset (MR)
	02		On / Off (2-position), Sensitivity (S): 0.3% FS Fixed
	99		Others (Please consult before ordering.)
CONTROL OUTPUT	Y-		Contact, 240V AC, 1A / Inductive Load, 2.5A / Resistive load
	P-		SSR voltage, 12V DC / RA, Max. current: 20mA
	X-		Others (Please consult before ordering.)
POWER SUPPLY	11-		100~110V / 200~220V AC ±10%, 50 / 60Hz
	12-		110~120V / 220~240V AC ±10%, 50 / 60Hz
	99-		Others (Please consult before ordering.)
INPUT STANDARD	J		JIS
	D		DIN
	F		JIS (New Pt100-JIS)
	A		ANSI
	X		Others (Please consult before ordering.)
TYPE OF INPUT	J		Thermocouple (J)
	K		Thermocouple (K)
	Q		Thermocouple (L) (DIN 43710)
	R		Thermocouple (R)
	S		Thermocouple (S)
	P		R.T.D. (Pt100)
MEASURING RANGE		□□□	See Measuring Range Codes.
	LEGEND	N	None
		C	°C Temperature
		F	°F Temperature
		X	Others (Please consult before ordering.)
REMARKS	0	Without	
	9	With (Please consult before ordering.)	

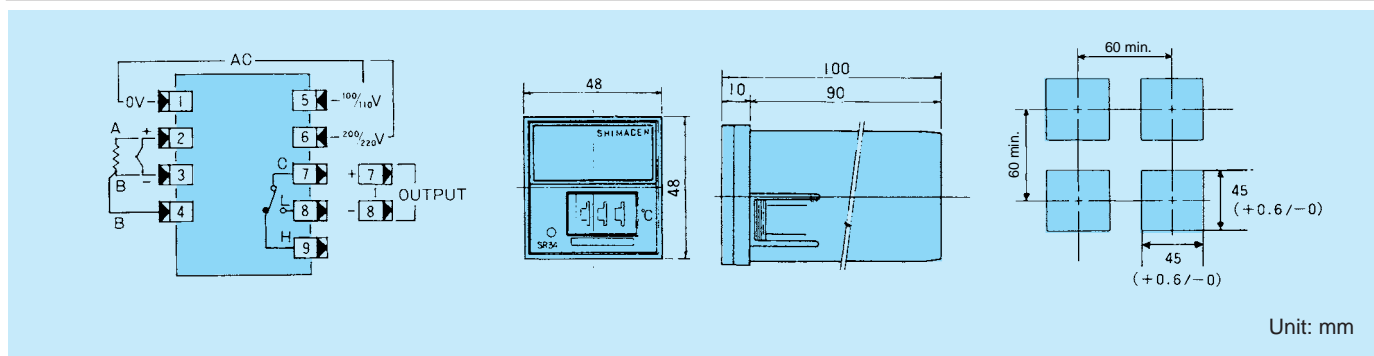
MEASURING RANGE CODES

INPUT	RANGE	CODE
R.T.D. (Pt100)	-99~ +99°C	576
	0~ 99.9°C	781
	0~ 399°C	792
Thermocouple	J 0~ 399°C	792
	L 0~ 399°C	792
	K 0~ 399°C	792
	K 0~ 999°C	874
	K 0~1199°C	877
	S *1 0~1699°C	885
	R *1 0~1699°C	885

INPUT	RANGE	CODE
R.T.D. (Pt100)	0~ 399°F	792
	0~ 799°F	871
	*2 0~ 499°F	795
Thermocouple	J 0~ 799°F	871
	K 0~ 999°F	874
	K 0~1999°F	887
	R *3 0~2999°F	893
Voltage / Current	0~ 99.9	781
	0~ 499	795
	0~ 999	874

- * 1 Standard Accuracy Range: 700~1699°C
- * 2 Accuracy will be ±2.0% FS+1 digit
- * 3 Standard Accuracy Range: 1300~2999°F

TERMINAL ARRANGEMENT & EXTERNAL DIMENSIONS



SERIES SR35

- DIN Size 72 (H) × 72 (W) mm
- Digital Setting
- Easy Installation



Series SR35

SPECIFICATIONS

Display Type / Accuracy:		Control Output:	
SR35:	Digital Display / $\pm 0.5\%$ FS + 1 digit (Measuring range: See range Codes table.)	Contact:	240V AC, 2.5A / resistive load, 1A / inductive load
Setting Type=Accuracy:	Digital / $\pm 0.7\%$ FS	SSR voltage:	15A DC / RA, 20mA max.
A / D Conversion:	Dual-slope integration	Current:	4~20mA DC / RA. Load resistance: 600 Ω max.
Input:		Control action	
R.T.D.:	Pt100	Display (green):	Contact output: C-L / On Current output: Power supply lamp SSR voltage output: Lights when output.
Amperage:	2mA		
Lead wire tolerable resistance:	2 Ω max. / wire	Analog Output:	
Thermocouple:	J, K, L, R, S	Accuracy:	$\pm 0.5\%$ of measuring range
Cold junction temp. compensation range:	5~45°C	Voltage:	0~10mV DC
Input resistance:	200k Ω min.	Output Resistance:	10 Ω
External resistance:	100 Ω max.	Alarm:	Selectable setting (high or low) deviation type (non-inhibit)
Burnout circuit:	Standard (up-scale)	(Not Available for 3-Position Control)	
Voltage:	0~10mV DC linear	Setting range:	-10~0~+10% FS
Input impedance:	200k Ω min.	Output:	Contact
Current:	4~20mA DC linear	Alarm sensitivity:	0.3% FS fixed
Receiving impedance:	250 Ω	Contact rating:	240V AC, 2.5A / resistive load
Control Mode:		Alarm action display:	ALC-ALH / On: Red lamp lights.
On / Off:	Sensitivity (SA): 0.3~5% FS adjustable	Alarm setting:	By front ALARM VR
Proportioning:		Power Consumption:	Approx. 4VA
Proportional band (PB):	1~20% FS adjustable (Factory- set at 4% FS)	Operating Ambient Temperature Range:	-10~+50°C
Manual reset (MR):	Adjustable from front face	Operating Ambient Humidity:	90% RH max.
Proportioning cycle:	Contact output: Approx.30 sec. SSR voltage: Approx. 3 sec.	Insulation Resistance:	500V DC, 20M Ω between the input / output and power supply terminals
3-Position (NZ):	1~20% FS adjustable Sensitivity (SA): 0.3% FS fixed	Dielectric Strength:	1 min. at 500V AC between the input and power supply terminals
		External Dimensions:	72 (H) × 72 (W) × 103 (D) mm (90mm behind the panel)
		Panel Cutout:	68 (H) × 68 (W) mm Tolerance: +0.7 / -0mm
		Panel Thickness:	1~4mm
		Weight:	Approx. 350g

ORDERING INFORMATION

ITEMS	CODE		SPECIFICATIONS
SERIES	SR35-		Digital Display Controller
INPUT	1		Thermocouple, Input Resistance: 200kΩ, External resistance: 100Ω max.
	2		R.T.D. (Pt100), Amperage: 2mA, Tolerable resistance: 2Ω max. / wire
	3		Voltage, 0~10mV DC Linear, Input resistance: 200kΩ
	4		Current, 4~20mA DC Linear, Receiving impedance: 250Ω
	9		0~100mV DC, 0~1V DC (For others, please consult before ordering.)
CONTROL MODE	1		Proportioning, (PB): 1~20% FS Adjustable, Manual reset (MR): Adjustable
	2		On / Off (2-position), Sensitivity adjust (SA): 0.3~5% FS Adjustable
	3		3-Position NZ: 1~20% FS, SA: 0.3%, Output (Y) only
	9		Others (Please consult before ordering.)
CONTROL OUTPUT	Y-		Contact, 240V AC, 1A / Inductive, 2.5A / Resistive Load, Cycle: 30 sec.
	I-		Current (Proportioning type only), 4~20mA DC / RA, Load resistance: 600Ω max.
	P-		SSR voltage, 15V DC / RA, Max.current: 20mA
	X-		Others (Please consult before ordering.)
ALARM	00		None Provided
	93		Selectable setting (High or Low) deviation alarm, -10~0~+10% FS *
ANALOG OUTPUT	0		None
	3		Voltage (0~10mV DC), Output Resistance: 10Ω
POWER SUPPLY	11-		100~110V / 200~220V AC ±10%, 50 / 60Hz
	12-		110~120V / 220~240V AC ±10%, 50 / 60Hz
	99-		Others (Please consult before ordering.)
INPUT STANDARD		N	None
		J	JIS
		F	JIS (New Pt100-JIS)
		D	DIN
		A	ANSI
TYPE OF INPUT		J	Thermocouple (J)
		K	Thermocouple (K)
		R	Thermocouple (R)
		S	Thermocouple (S)
		Q	Thermocouple (L) (DIN 43710)
		P	R.T.D. (Pt100)
		L	Linear — voltage and current inputs
		X	Others (Please consult before ordering.)
MEASURING RANGE		<input type="text"/> <input type="text"/> <input type="text"/>	See Measuring Range Codes.
LEGEND		N	No legend
		C	°C Temperature
		F	°F Temperature
		H	% RH Humidity
		X	Others (Please consult before ordering.)
REMARKS		0	Without
		9	With (Please consult before ordering.)

* Not available for 3-position control

MEASURING RANGE CODES

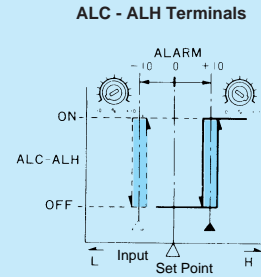
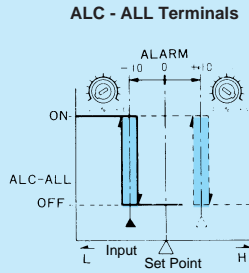
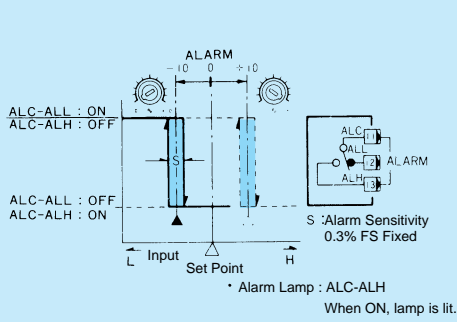
INPUT	RANGE	CODE
R.T.D. (Pt100)	-99.9~ +99.9°C	579
	0 ~ 99.9°C	781
	0 ~ 399°C	792
Thermocouple	J 0 ~ 399°C	792
	K 0 ~ 399°C	792
	K 0 ~ 999°C	874
	K 0 ~1199°C	877
	L * 0 ~ 399°C	792
R * 0 ~1699°C	885	

INPUT	RANGE	CODE
R.T.D. (Pt100)	0~ 399°F	792
	0~ 799°F	871
Thermocouple	J 0~ 499°F	795
	J 0~ 799°F	871
	K 0~ 999°F	874
	K 0~1199°F	877
	K 0~1999°F	887
Voltage / Current	0~ 99.9%RH	781
	0~ 499	795
	0~ 999	874

* Effective measuring range is 600~1699°C
Display accuracy for this range is 0.7% FS+1 digit.

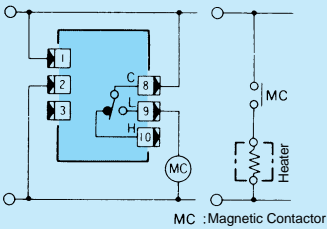
DIGITAL CONTROLLER

ALARM CONFIGURATIONS

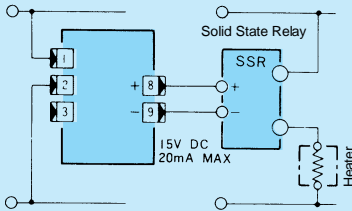


WIRING EXAMPLES

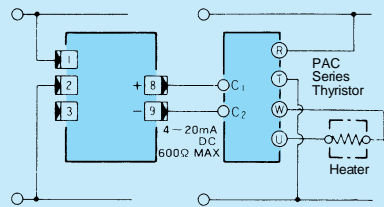
Contact Output



SSR Voltage Output

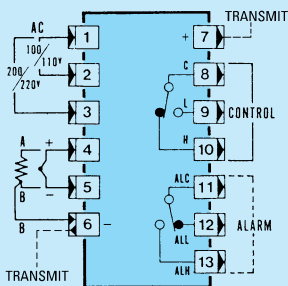


Current Output (Proportioning only)

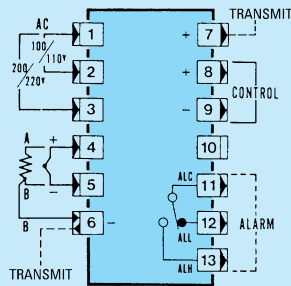


TERMINAL ARRANGEMENT

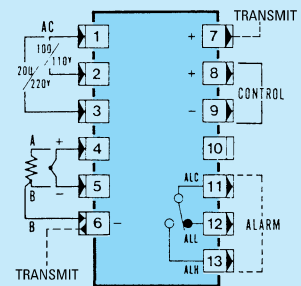
Contact Output



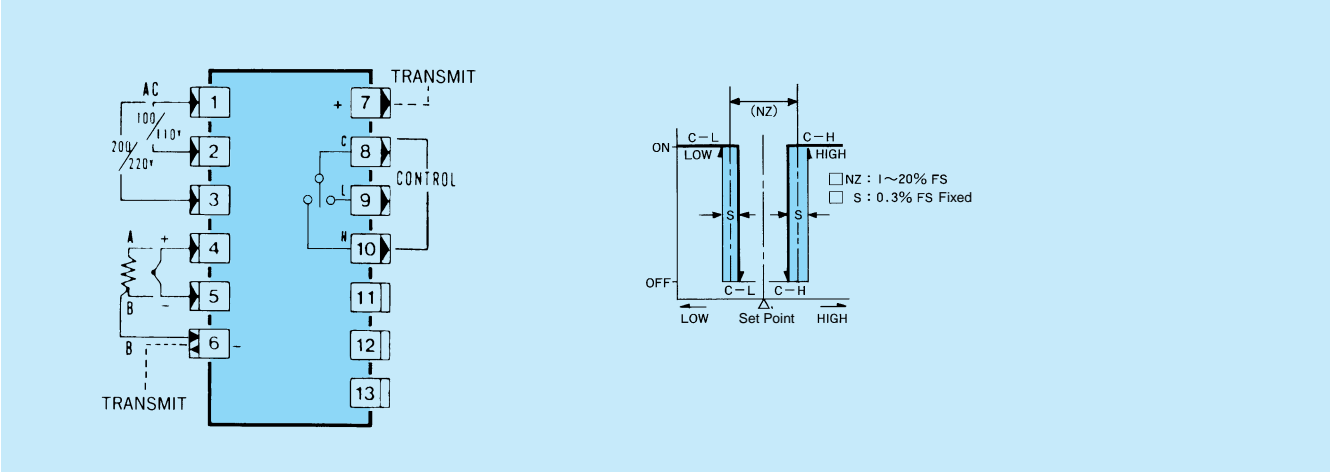
SSR Voltage Output



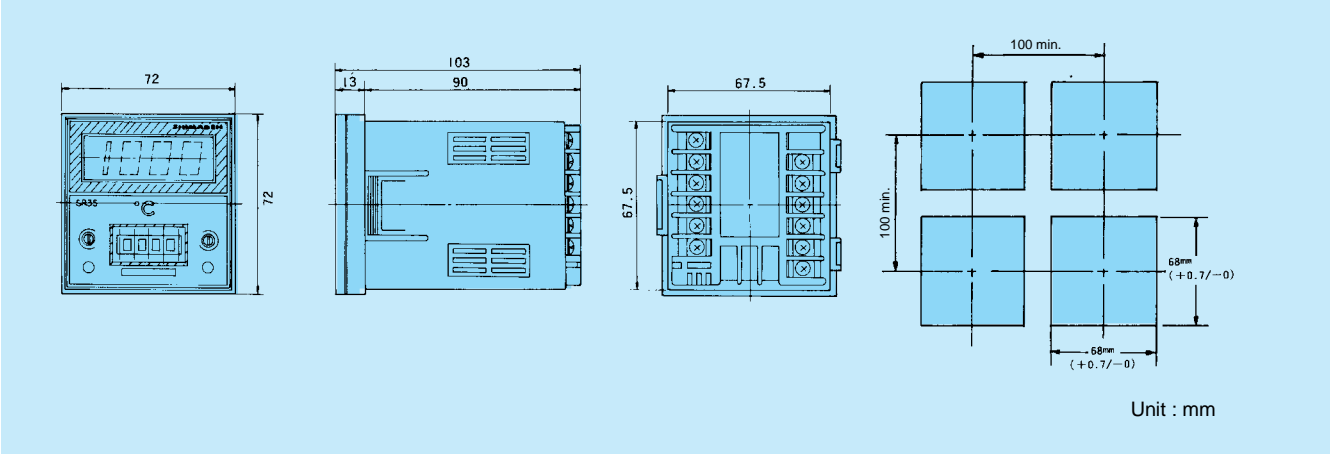
Current Output



CONTACT OUTPUT TYPE 3-Position Control



EXTERNAL DIMENSIONS & PANEL CUTOUT



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