



Features

- ★ Standard 1/8 DIN size (48 x 96 mm)
- ★ Display range -1999 to 1999
- ★ Low cost
- ★ Display scaling function
(*For Process input & Large Current input type)
- ★ Short depth 67 mm
- ★ Various input type, DC / AC / Thermocouple / RTD input
- ★ Added New Process Input range
0-5 V DC (2 V) & 0-10 V DC (3 V)

Ordering Code

A1 1 -

Power Supply	Input Type	Input Range	Description	
1			Power	100–120 V AC ±10%
2				200–240 V AC ±10%
3				5–24 V DC ±10%
	DC Voltage Measurement			
	1	11	Input	±199.9 mV DC
		12		±1.999 V DC
		13		±19.99 V DC
		14		±199.9 V DC
	DC Current Measurement			
	2	23	Input	±19.99 mA DC
		24		±199.9 mA DC
		25		±1.999 A DC
	AC Voltage Measurement (Average)			
	4	12	Input	0–1.999 V AC
		13		0–19.99 V AC
		14		0–199.9 V AC
	AC Current Measurement (Average)			
	5	23	Input	0–19.99 mA AC
		24		0–199.9 mA AC
		25		0–1.999 A AC
	AC Large Current Measurement (Average)			
	6	26	Input	0–5 A AC
	Process Signal Measurement			
B	1V	Input	1–5 V DC	
	2V		0–5 V DC (New)	
	3V		0–10 V DC (New)	
	2A		4–20 mA DC	
Thermocouple Measurement				
C	KC	Input	K Thermocouple (0–+1000°C)	
	JC		J Thermocouple (0–+400°C)	
RTD Measurement				
D	PA	Input	Pt100 Ω (RTD) (-100.0–+199.9°C)	
	PJ		Pt100 Ω (RTD) (-200–+600°C)	

Input Specifications

DC Measurement

Input code **1 2 B**

Code	Range	Measurement range	Resolution	Input Resistance	Max. allowable input	Accuracy
1	11	±199.9 mV DC	100 μV	Approx. 100 MΩ	±100 V	±0.1%fs
	12	±1.999 V DC	1 mV	Approx. 1 MΩ	±120 V	±0.3%fs
	13	±19.99 V DC	10 mV	Approx. 1 MΩ	±500 V	±0.3%fs
	14	±199.9 V DC	100 mV	Approx. 1 MΩ	±500 V	±0.3%fs
2	23	±19.99 mA DC	10 μA	Approx. 10 Ω	±150 mA	±0.5%fs
	24	±199.9 mA DC	100 μA	Approx. 1 Ω	±500 mA	±0.5%fs
	25	±1.999 A DC	1 mA	Approx. 0.1 Ω	±3 A	±0.5%fs
B	1V	1-5 V DC	-	Approx. 1 MΩ	±100 V	±0.3%fs
	2V	0-5 V DC (New)	-	Approx. 1 MΩ	±100 V	±0.3%fs
	3V	0-10 V DC (New)	-	Approx. 1 MΩ	±100 V	±0.3%fs
	2A	4-20 mA DC	-	Approx. 51 Ω	±50 mA	±0.4%fs

AC Measurement (Average)

Input code **4 5 6**

Code	Range	Measurement range	Resolution	Input Resistance	Max. allowable input	Accuracy
4	12	0-1.999 V AC	1 mV	Approx. 100 MΩ	50 V AC	±0.5%fs
	13	0-19.99 V AC	10 mV	Approx. 1 MΩ	500 V AC	±0.5%fs
	14	0-199.9 V AC	100 mV	Approx. 1 MΩ	500 V AC	±0.5%fs
5	23	0-19.99 mA AC	10 μA	Approx. 10 Ω	150 mA AC	±1.0%fs
	24	0-199.9 mA AC	100 μA	Approx. 1 Ω	500 mA AC	±1.0%fs
	25	0-1.999 A AC	10 mA	Approx. 0.1 Ω	3 A AC	±1.0%fs
6	26	0-5 A AC	10 mA	CT	8 A AC	±1.0%fs

Input frequency range	40-100 Hz
Dead zone	None
Response time	Approx. 1 s

Thermocouple Measurement

Input code **C**

Code	Range	Input	Measurement range	Resolution	Accuracy
C	KC	K thermocouple	0-+1000°C	1°C	±0.8%fs
	JC	J thermocouple	0-+400°C	1°C	±0.8%fs

Internal resistance	50 Ω or less
Burnout protection	Downscale (Flash -1999)
Cold junction compensation accuracy	±2°C

RTD Measurement

Input code **D**

Code	Range	Input	Measurement range	Resolution	Accuracy
D	PA	Pt100 Ω	-100.0-+199.9°C	0.1°C	±0.2%fs
	PJ	Pt100 Ω	-200-+600°C	1°C	±0.4%fs

External resistance	RTD : 1 Ω or less for 1 wire
Resistor current	1 mA (TYP)

Common Specifications

Display	Red 7 segment LED (14.2 mm height)
Polarity	'-' is displayed automatically at negative polarity
Display range	-1999 to 1999
Scaling	Offset: ± 1000 (For Process signal input) Full scale : 100–1999 (For Process signal input) Full scale : 200–1999 (For AC large current input) Span range : 200 count *Only Process signal & Large current input types have a scaling function.
Over range display	Flash 1999 when input exceed max. display
Decimal point	Able to set to any digit
Zero display	Leading zero suppression
Operating temperature	0 to 50°C
Operating relative humidity	35 to 85%RH (Non-condensing)
Power supply	1) 100–120 V AC $\pm 10\%$, 2) 200–240 V AC $\pm 10\%$, 3) 5–24 V DC $\pm 10\%$

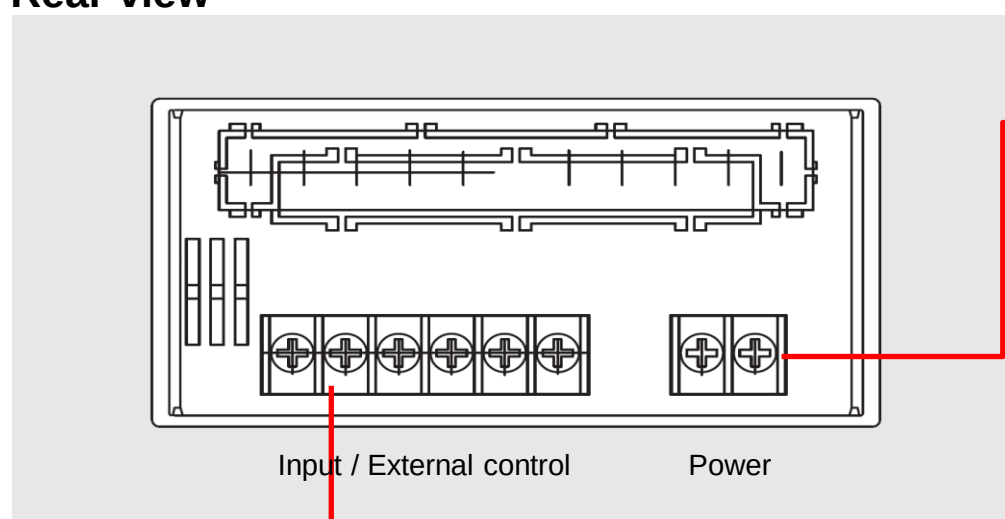
Power consumption	1) AC power : 1.5 VA TYP 2) DC Power : 230 mA TYP
Dimensions	48(H) x 96(W) x 67(D) mm, 1/8 DIN size
Weight	Approx. 210 g (For AC), 85 g (For DC)
Dielectric strength	1) AC Power : Power-input 3000 V AC per 1min. 2) DC Power : Power-input 500 V DC per 1min.
Insulation resistance	500 V DC, 100 M Ω or more on the above terminals
Applicable EN standard	EN61326-1, EN61010-1 (*Other than 14 range), EN IEC 63000
Front protection	IP40 rating (Front bezel)
Sampling rate	Max. 400 ms (2.5 times per second)
Moving average	None
Display update cycle	Max. 400 ms (2.5 times per second)
Sensor power supply	None
Standard accessory	Unit sticker No.1, Terminal cover

External control

Hold	Hold the display value at any time
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Terminal Connections

Rear view



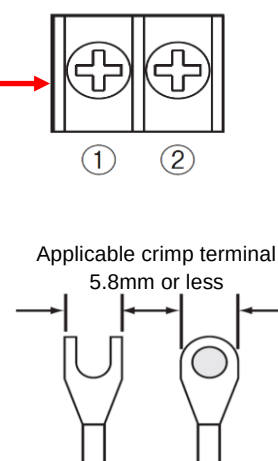
Power supply connection (Common)

AC voltage Input

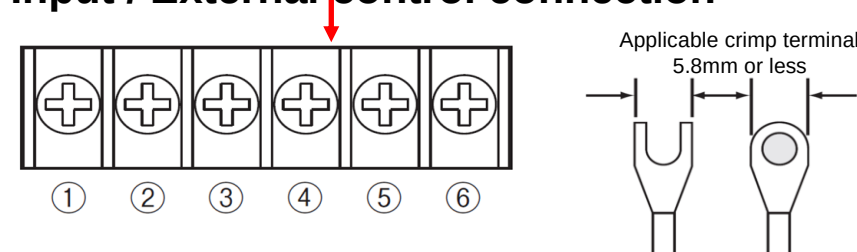
No.	Name	Remarks
1	POWER	Power supply terminal (No polarity)
2		

DC voltage Input

No.	Name	Remarks
1	POWER (-)	Power supply terminal (-)
2	POWER (+)	Power supply terminal (+)



Input / External control connection



DC voltage Input Code 1

No.	Name	Remarks
1	HI(11,12)	Input (+) 11,12 range
2	HI(13,14)	Input (+) 13,14 range
3	NC	No connection
4	LO	Input (-)
5	HOLD	Hold (External control)
6	COM	Common (External control)

DC current Input Code 2

No.	Name	Remarks
1	HI(23)	Input (+) 23 range
2	HI(24)	Input (+) 24 range
3	HI(25)	Input (+) 25 range
4	LO	Input (-)
5	HOLD	Hold (External control)
6	COM	Common (External control)

AC voltage Input Code 4

No.	Name	Remarks
1	HI(12)	Input (+) 12 range
2	HI(13,14)	Input (+) 13,14 range
3	NC	No connection
4	LO	Input (-)
5	HOLD	Hold (External control)
6	COM	Common (External control)

AC current Input Code 5

No.	Name	Remarks
1	HI(23)	Input (+) 23 range
2	HI(24)	Input (+) 24 range
3	HI(25)	Input (+) 25 range
4	LO	Input (-)
5	HOLD	Hold (External control)
6	COM	Common (External control)

AC large current Input Code 6

No.	Name	Remarks
1	HI(26)	Input (+) 26 range
2	LO	Input (-)
3	NC	No connection
5	HOLD	Hold (External control)
6	COM	Common (External control)

Process Input Code B

No.	Name	Remarks
1	HI(1V)	Input (+) 1V,2V,3V range
2	HI(2A)	Input (+) 2A range
3	NC	No connection
4	LO	Input (-)
5	HOLD	Hold (External control)
6	COM	Common (External control)

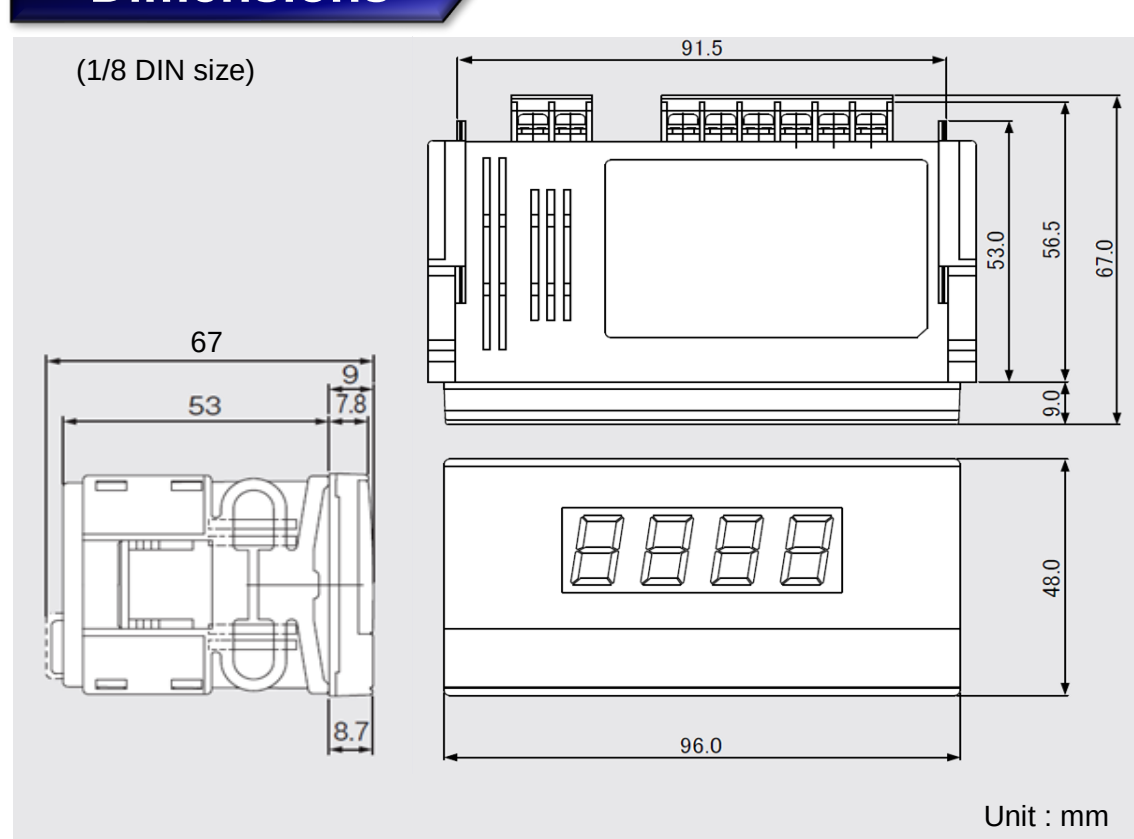
Thermocouple input Code C

No.	Name	Remarks
1	+	Input (+)
2	-	Input (-)
3	S	Shielded wire
4	NC	No connection
5	HOLD	Hold (External control)
6	COM	Common (External control)

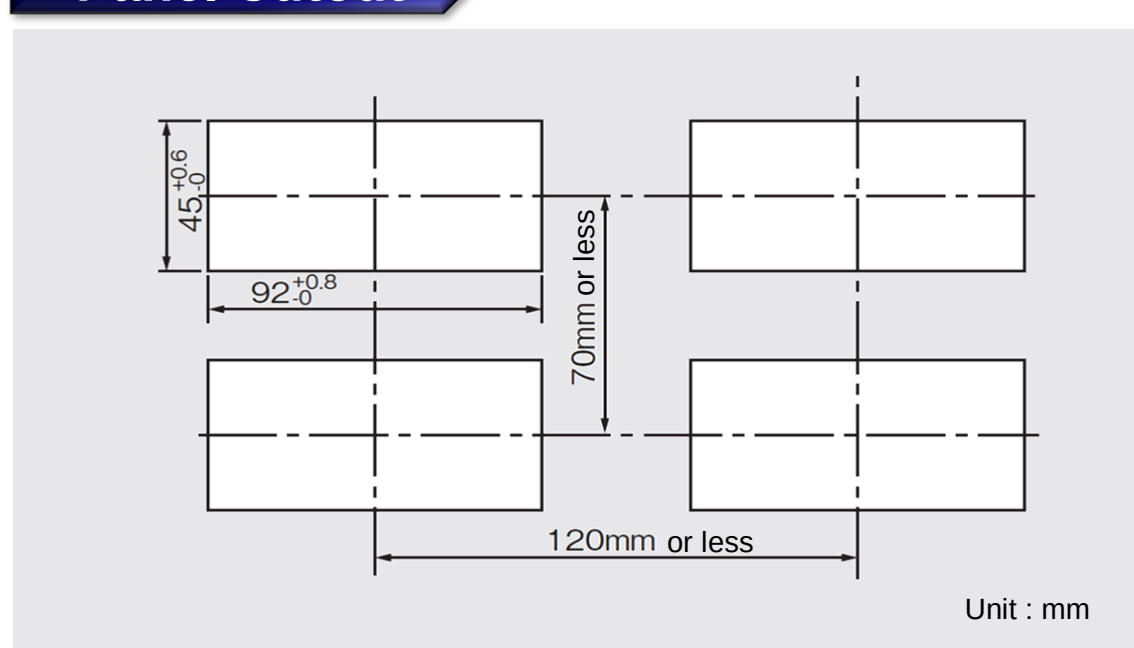
RTD Input Code D

No.	Name	Remarks
1	A	Resistance element lead wire
2	B	Resistance element lead wire
3	C	Conductor resistance removal wire
4	NC	No connection
5	HOLD	Hold (External control)
6	COM	Common (External control)

Dimensions



Panel Cutout



*Recommended panel thickness : 1–8 mm

* Specification is subject to change without notice