



Features

- ★ Standard 1/8 DIN size (48 x 96mm)
- ★ Display range -1999 to 1999
- ★ Low cost
- ★ Display scaling function
(*For Process input & Large Current input type)
- ★ Short depth 65.5mm
- ★ Various input type, DC / AC / Thermocouple / RTD input
- ★ Added New Process Input range
0~5VDC (2V) & 0~10VDC (3V)

Ordering Code

A1 1 -

Power Supply	Input Type	Input Range	Description	
1			Power	100~120V AC ±10%
2				200~240V AC ±10%
3				5~24V DC ±10%
	DC Voltage Measurement			
	1	11	Input	±199.9mV DC
		12		±1.999V DC
		13		±19.99V DC
		14		±199.9V DC
	DC Current Measurement			
	2	23	Input	±19.99mA DC
		24		±199.9mA DC
		25		±1.999A DC
	AC Voltage Measurement (Average)			
	4	12	Input	0~1.999V AC
		13		0~19.99V AC
		14		0~199.9V AC
	AC Current Measurement (Average)			
	5	23	Input	0~19.99mA AC
		24		0~199.9mA AC
		25		0~1.999A AC
	AC Large Current Measurement (Average)			
	6	26	Input	0~5A AC
	Process Signal Measurement			
B	1V	Input	1~5V DC	
	2V		0~5V DC (New)	
	3V		0~10V DC (New)	
	2A		4~20mA DC	
Thermocouple Measurement				
C	KC	Input	K Thermocouple (0~+1000°C)	
	JC		J Thermocouple (0~+400°C)	
RTD Measurement				
D	PA	Input	Pt100Ω (RTD) (-100.0~+199.9°C)	
	PJ		Pt100Ω (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	±199.9mV DC	100μV	Approx. 100MΩ	±100V	±0.1% fs
	12	±1.999V DC	1mV		±120V	±0.3% fs
	13	±19.99V DC	10mV	Approx. 1MΩ	±500V	
	14	±199.9V DC	100mV			
2	23	±19.99mA DC	10μA	Approx. 10Ω	±150mA	±0.5% fs
	24	±199.9mA DC	100μA	Approx. 1Ω	±500mA	
	25	±1.999A DC	1mA	Approx. 0.1Ω	±3A	
B	1V	1~5V DC	-	Approx. 1MΩ	±100V	±0.3% fs
	2V	0~5V DC (New)				
	3V	0~10V DC (New)		Approx. 51Ω	±50mA	±0.4% fs
	2A	4~20mA DC				

AC Measurement (Average)

Input code **4 5 6**

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

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

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		

Internal resistance	50Ω 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	Pt100Ω	-100.0~+199.9°C	0.1°C	±0.2% fs
	PJ		-200~+600°C	1°C	±0.4% fs

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

Common Specifications

Display	Red 7 segment LED (14.2mm 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) 100~120VAC $\pm 10\%$, 2) 200~240VAC $\pm 10\%$, 3) 5~24VDC $\pm 10\%$

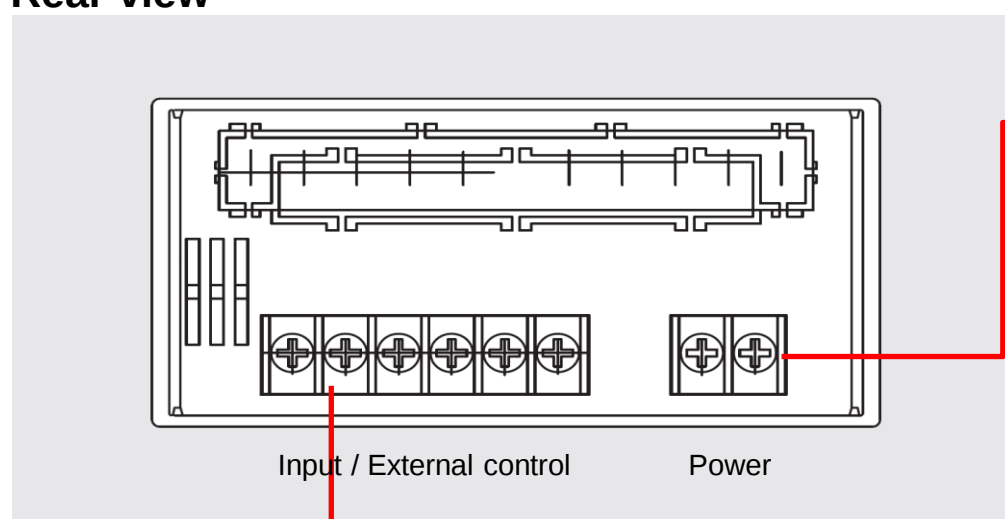
Power consumption	1) AC power : 1.5VA TYP 2) DC Power : 230mA TYP
Dimensions	48mm(H) x 96mm(W) x 65.5mm(D) 1/8 DIN size
Weight	Approx. 205g (For AC), 85g (For DC)
Dielectric strength	1) AC Power : Power-input 1500VAC per 1min. 2) DC Power : Power-input 500VDC per 1min.
Insulation resistance	500VDC, 100M 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. 400ms (2.5 times per second)
Moving average	None
Display update cycle	Max. 400ms (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



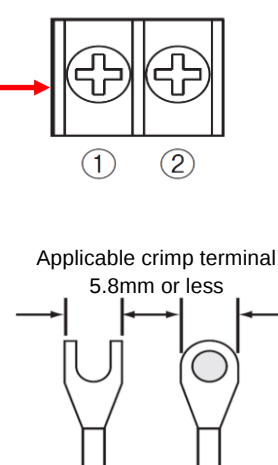
Power supply connection (Common)

AC voltage Input

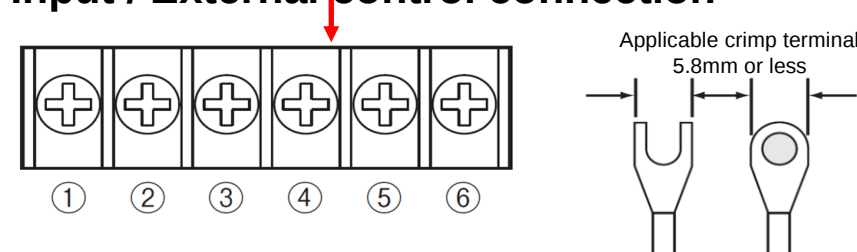
No.	Name	Remarks
1	POWER	Power supply terminal (No polarity)
2		

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)

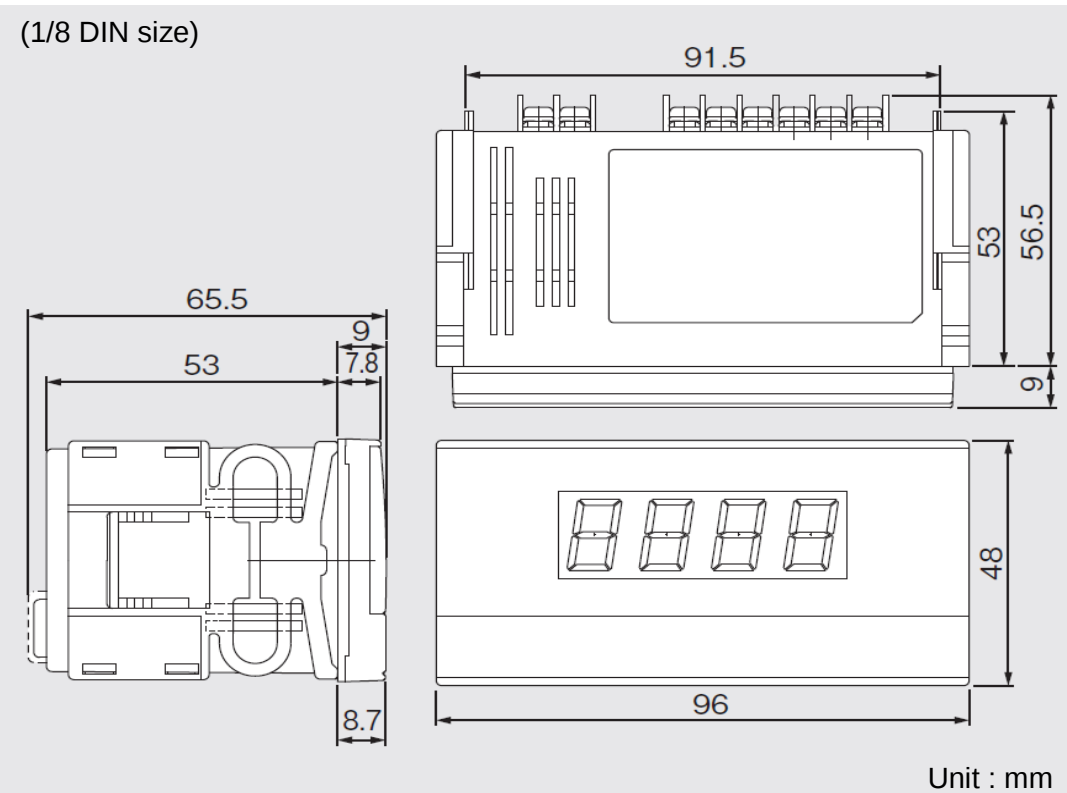
Thermocouple input Code C

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

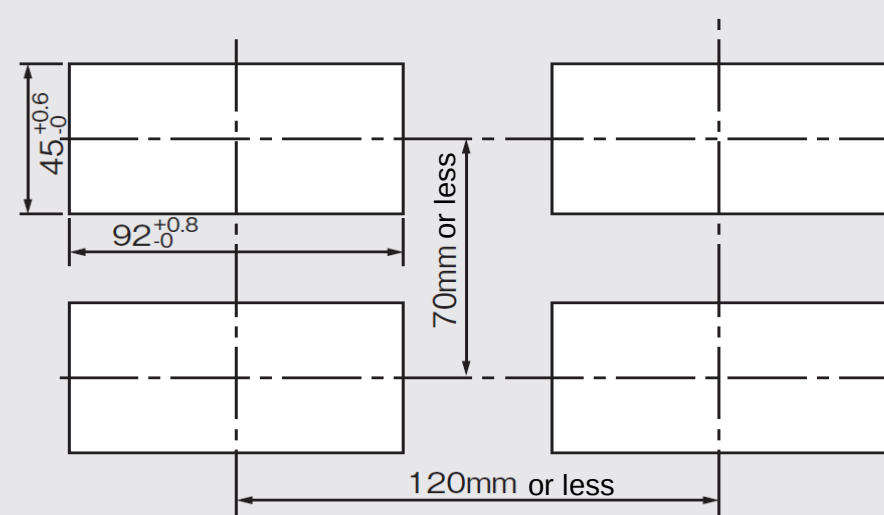
No.	Name	Remarks
1	A	Resistance element lead wire
2	B	Resistance element lead wire
3	C	Conductor resistance removal wire
4	NC	No connection
5	HOLD	Hold (External control)
6	COM	Common (External control)

Dimensions



Unit : mm

Panel Cutout



Unit : mm

*Recommended panel thickness : 1~8mm

* Specification is subject to change without notice