

[Single display type]



[Multi display type]



Features

- ★ Standard DIN size (48mm x 96mm)
- ★ Display range -19999 to 99999
- ★ Large sensor excitation (sensor power supply)
12Vdc (100mA) or 24Vdc (50mA) when process signal input.
- ★ 2 setpoints and 4 setpoints type available.
- ★ D/A analog output (high response time).
- ★ IP66 rating (Front bezel).
- ★ CE approved

Ordering code

WPM - 1 - - - 0 0

Code	Power supply	Code	Display
1	100 to 240Vac	1	Single
		2	Multi

Code	Input range
1	DC voltage (11 to 14 range)
2	DC high voltage (15 range)
3	DC current (21 to 24 range)
4	DC large current (25 range)
B	Process signal

Code	Output	Code	Comparative output
0	Display only	0	None
1	Analog output	1	2 setpoints Relay output
		2	4 setpoints Relay output
		3	2 setpoints Photocoupler output
		4	4 setpoints Photocoupler output

Code	Test report
0	None
1	With Test report

Input Specifications

◆ DC voltage Input range code **1 2**

Range	Measurement range	Auto range	Display Range (Scaling)	Resolution	Impedance	Max. allowable input	Accuracy (23±5°C 35 to 85%RH)
11	±199.99mV	Not available	Offset: :	10μV	Approx. 10M Ω	±250V	±(0.1% of FS +1 digit)
12	±1.9999V	Available	-19999 to 99999	100μV			
13	±19.999V		Full scale :	1mV			
14	±199.99V		-19999 to 99999	10mV			
15	±600.0V	Not available	Resolution : ±19999	100mV		±600V	

Note : 'Accuracy' is when the sampling rate is 60 times per second or less.

◆ DC current Input range code **3 4**

Range	Measurement range	Display Range (Scaling)	Resolution	Impedance	Max. allowable input	Accuracy (23±5°C 35 to 85%RH)
21	±199.99μA	Offset: : -19999 to 99999	10nA	Approx. 1KΩ	±10mA	±(0.1% of FS +1 digit)
22	±1.9999mA		100nA	Approx. 100Ω		
23	±19.999mA	Full scale : -19999 to 99999	1μA	Approx. 10Ω	±50mA	
24	±199.99mA		10μA	Approx. 1Ω	±500mA	
25	±1.9999A	Resolution : ±19999	100μA	Approx. 0.1Ω	±3A	

Note : 'Accuracy' is when the sampling rate is 60 times per second or less.

◆ Process signal Input range code **B**

Range	Measurement range	Display Range (Scaling)	Impedance	Max. allowable input	Accuracy (23±5°C 35 to 85%RH)
1V	1 to 5V	Offset: : -19999 to 99999 Full scale : -19999 to 99999 Resolution : ±19999	Approx. 1MΩ	±100V	±(0.1% of FS +1 digit)
2V	±5V				
3V	±10V				
2A	4 to 20mA				
3A	±20mA				
			Approx. 10Ω	±50mA	

Note : 'Accuracy' is when the sampling rate is 60 times per second or less.

Specifications

◆ Common specifications

Input Configuration	Single ended
A/D conversion	$\Delta\Sigma$ conversion
Sampling rate	Max. 250 times per second
Over range display	When input exceeds the maximum display, 'ovEr' or '-ovEr'
Decimal point	Able to set to any digit
Display	Single display main display: red or green 7 segment LED (height 18mm) Multi display main display: red or green 7 segment LED (height 14.9mm) sub display: white 7 segment LED (height 9mm)
Polarity	'-' is displayed automatically at negative polarity
Display range	-19999 to 99999 (5 digits)
Zero display	Leading zero suppression
External control	Select 4 external control and set parameter 1. Pattern select 2. Sample hold 3. Peak hold 4. Digital zero 5. Relay reset
Operating temperature	-5 to 50°C
Operating relative humidity	35 to 85% (non-condensing)
Storage temperature/humidity	-10 to 70°C 60%RH or less
Power supply	100 to 240Vac $\pm 10\%$ 50/60Hz
Sensor excitation (Sensor power supply)	12Vdc $\pm 10\%$ 100mA, 24Vdc $\pm 10\%$ 50mA selectable (when process signal input)
Power consumption	12VA max. at 100Vac 15VA max. at 240Vac
Dimensions	96mm(W) x 48mm(H) x 85.9mm(D) DIN size (with comparative function : 99.7mm(D))
Weight	Approx. 250g
Dielectric strength	AC power supply 2000VAC per 1 min. : Power supply terminal - input terminal / external control / analog output terminal 1500VAC per 1 min. : Power supply terminal - comparative output terminal
Insulation resistance	500Vdc, 100M Ω or more on the above terminals
Vibration strength	10 to 55Hz 0.15mm X,Y,Z 30 min.
Front protection	IP66 rating (Front bezel)
Installation location	Indoors only
Applicable EN standard	EN61326-1, EN61010-1, EN IEC 63000
Case material	Polycarbonate

◆ Comparative output specifications

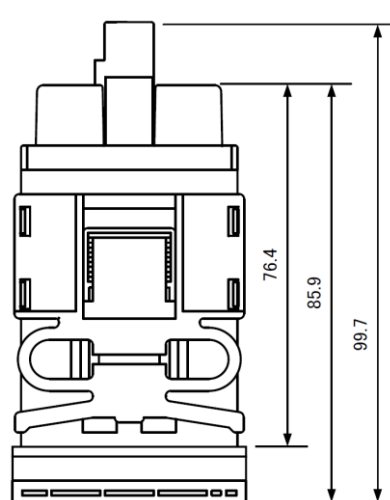
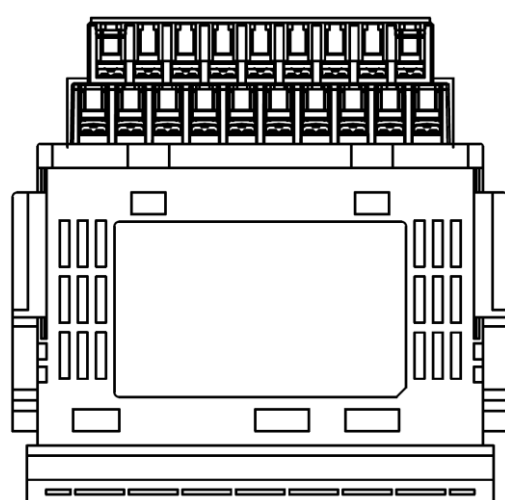
Comparative Output Specifications		
Setting range	-19999 to 99999	
Hysteresis	1 to 9999 digit for each setpoints	
Setting condition	HH > HI > LO > LL	
Comparative condition	Comparative condition	Result
	Display value > HH > HI	AL1(HH), AL2(HI)
	HH ≥ Display value > HI	AL2(HI)
	HI ≥ Display value ≥ LO	AL3(GO)
	LO > Display value ≥ LL	AL4(LO)
	LO > LL > Display value	AL4(LO), AL5(LL)
Comparative relay output	Contact rating : 125Vac 0.3A (resistance load) 30Vdc 1A (resistance load)	
	Number of contacts : 5 relay contacts	
	Minimum applicable load : 10μA 10mVdc	
	Mechanical life : 50,000,000 times or more	
	Electrical life : 100,000 times or more	
Photocoupler output (NPN open collector output)	Rated output : Sink current 50mA Max.	
	Applied voltage : 30V Max	
	Output saturation voltage : 1.2V or less when 50mA	
	Number of outputs : Photocoupler output (NPN) x 5	

◆ Analog output specifications

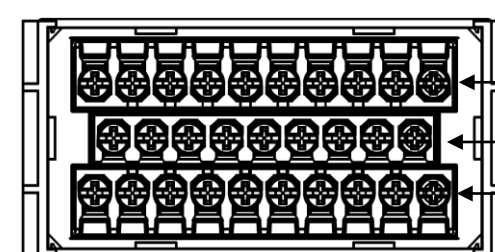
Analog output specifications				
Conversion	D/A			
Resolution	15bit			
Scaling	Digital scaling			
Response time	10ms or less (0 to 90%)			
	Analog output	Load resistance	Accuracy	Ripple
	0 to 2V	10kΩ or more	±(0.1% of FS)	±50mVp-p
	0 to 10V			
	-10 to +10V			
	1 to 5V			
	0 to 20mA	550Ω or more		±25mVp-p
	4 to 20mA			

Note : 'Ripple' is when load resistance is 250 Ω and current output is 20mA.

Dimensions

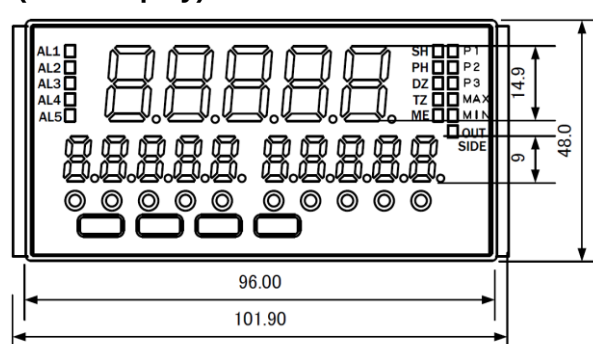


(Terminal connections)

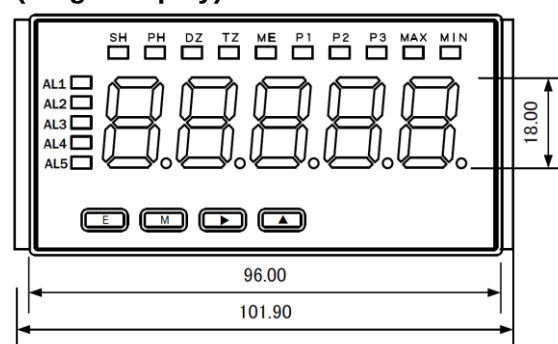


Output, External control
Comparative relay output
Input, Power supply,
Excitation for sensors
for process signal input

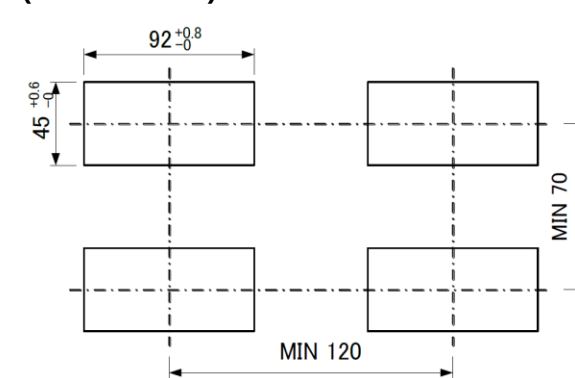
(Multi display)



(Single display)



(Panel cutout)



(Unit : mm)

* Specification is subject to change without notice