

Features

- ★ Auto range from $\pm 1.9999V$ to $\pm 199.99V$.
- ★ Built in excitation (sensor power supply) when process signal input.
12Vdc $\pm 10\%$ 100mA, 24Vdc $\pm 10\%$ 50mA selectable.
- ★ Two color display Green and Red.
- ★ Main LED height 18mm.
- ★ Easy to set setpoints by push button.
- ★ Power supply 100 to 240Vac.
- ★ DC voltage, current, Process input available.
- ★ 2 setpoints and 4 setpoints available.
- ★ D/A analog output (high response time).
- ★ NEMA 4 (IP66) Front bezel.
- ★ CE approved, RoHS compliant.

Ordering code

WPM - 1 - - -

Code	Power supply	Code	Display	Code	Input range	Code	Output	Code	Comparative output	Code	Test report
1	100 to 240Vac	1	Single	1	DC voltage (11 to 14 range)	0	Display only	0	None	0	None
		2	Multi	2	DC high voltage (15 range)	1	Analog output	1	2 setpoints Relay output	1	With Test report
				3	DC current (21 to 24 range)			2	4 setpoints Relay output		
				4	DC large current (25 range)			3	2 setpoints Photocoupler output		
				B	Process signal			4	4 setpoints Photocoupler output		

Input Specifications

◆ DC voltage

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

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

◆ DC current

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

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

◆ Process signal

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

Note : 'Accuracy' is when the sampling rate is 60 times per sec 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
Built in 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	NEMA 4 (IP66) Front bezel
Installation location	Indoors only
Applicable EN standard	EN61326-1, EN61010-1
Case material	Polycarbonate

◆ Comparative output specifications

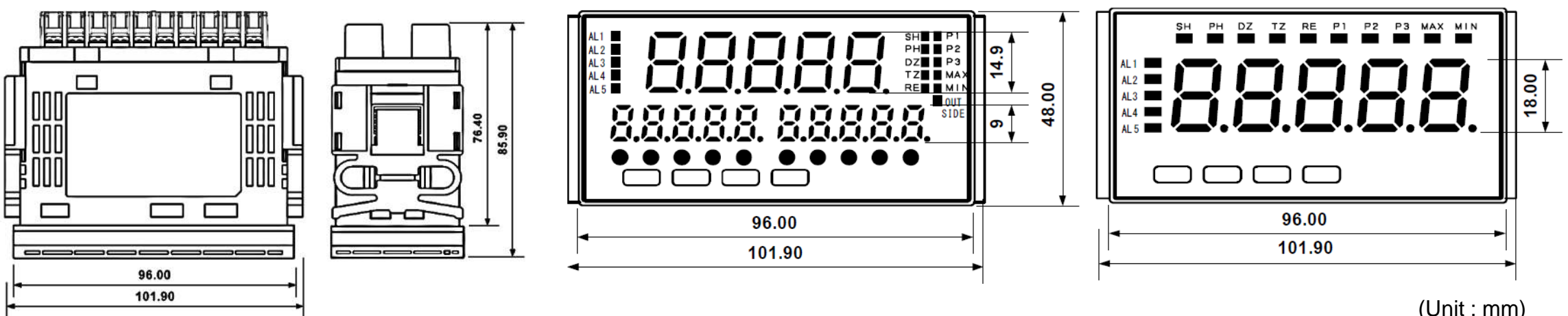
Setting range	-19999 to 99999	
Hysteresis	1 to 9999 digit for each setpoints	
Setting condition	HH set value > HI set value > LO set value > LL set valuepoint	
Comparative condition	Comparative condition	Result
	Display value > HH set value > HI set value	AL1(HH), AL2(HI)
	HH set value \geq Display value > HI set value	AL2(HI)
	HI set value \geq Display value \geq LO set value	AL3(GO)
	LO set value > display value \geq LL set value	AL4(LO)
	LO set value > LL set value > Display value	AL4(LO), AL5(LL)
Comparative condition	8 patterns stored in the internal memory	
Comparative relay output	Contact rating : 125Vac 0.3A (resistance load) 30Vdc 1A (resistance load) Number of contacts : 5 relay contacts Minimum applicable load : 10 μ A 10mVdc Mechanical life : 50,000,000 times or more Electrical life : 100,000 times or more (resistance load)	
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

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	10k Ω or more	\pm (0.1% of FS)	\pm 50mVp-p
	0 to 10V			
	-10 to +10V			
	1 to 5V	550 Ω or more		\pm 25mVp-p
	0 to 20mA			
4 to 20mA				

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

Dimensions



(Unit : mm)

* Specification is subject to change without notice