



Prohibiting Use of Hazardous Substances

## Features

- ★ High resolution by 5 1/2-digit(199999)LED display
- ★ High-speed sampling rate (50 times per second)
- ★ Able to change measurement range by input range selection

## Ordering code

AM - 756 -    -    -   

Code	Input range
DV	DC voltage (±199.999mV~±199.999V)
21	±199.999μA
22	±1999.99μA
23	±19.9999mA
24	±199.999mA
DB	Process signal (1~5V, 4~20mA, ±)

Code	Power supply
1	100 to 240Vac ±10%
2	12 to 48Vdc ±10%

Code	Output
0	None
1	External control
2	BCD output (TTL) + external control
3	BCD output (Open collector) + external control
4	Analog output + external control

Code	Comparative output
0	None
1	Relay
2	Photo coupler

## Input Specifications

### ◆ DC voltage **DV**

Code	Range	Measurement range	Resolution	Display Range	Impedance	Max. allowable input	Accuracy (23±5°C 45 to 75%RH)
DV	11	±199.999mV	1μV	Offset: ±199999 Full scale : ±199999	10MΩ or more	±50V	±(0.03% reading +15 digit)
	12	±1999.99mV	10μV				±(0.02% reading +10 digit)
	13	±19.9999V	100μV	Approx. 1MΩ	±250V	±(0.03% reading +10 digit)	
	14	±199.999V	1mV				

### ◆ DC current **21 22 23 24**

Code	Range	Measurement range	Resolution	Display Range	Impedance	Max. allowable input	Accuracy (23±5°C 45 to 75%RH)		
21	21	±199.999μA	0.001μA	Offset: ±199999 Full scale : ±199999	0.001μΩ	±10mA	±(0.04% reading +40 digit)		
							0.01μA	±20mA	±(0.04% reading +10 digit)
							0.1μA	±50mA	
							1μA	±500mA	±(0.06% reading +10 digit)

### ◆ Process signal **DB**

Code	Range	Measurement range	Resolution	Display Range	Impedance	Max. allowable input	Accuracy (23±5°C 45 to 75%RH)
DB	1V	1~5V (±5V)	-	Offset: ±199999 Full scale : ±199999	Approx. 1MΩ	±250V	±(0.04% reading +5 digit)
	2A	4~20mA (±20mA)	-				Approx. 10Ω
	11	±199.999V	1μA	10MΩ or more	±50V	±(0.03% reading +5 digit)	

## Specifications

### ◆ Common specifications

<b>Display</b>	Red or green 7 segment LED (height 20mm)
<b>Polarity</b>	'-' is displayed automatically at negative polarity
<b>Display range</b>	-199999 to 199999 (5 1/2 digits)
<b>Scaling</b>	Offset: ±199999, Full scale : ±199999
<b>Over range display</b>	When input exceeds the maximum display, 'ovEr' or '-ovEr'
<b>Decimal point</b>	Able to set to any digit
<b>Zero display</b>	Leading zero suppression
<b>Operating temperature</b>	-5 to 50°C
<b>Operating relative</b>	35 to 85% (non-condensing)
<b>Power supply</b>	100 to 240Vac ±10% 50/60Hz, 12 to 48Vac ±10%
<b>Power consumption</b>	AC power supply : Approx. 12VA max. DC power supply : Approx. 6W max.
<b>Dimensions</b>	96mm(W) x 48mm(H) x 97.5mm(D) DIN size
<b>Weight</b>	Approx. 200~300g
<b>External control</b>	Select 4 external control and set parameter Start hold, Digital zero, Peak hold, Pattern select, Relay reset

<b>Dielectric strength</b>	Power supply - input / output / external control / sensor power AC power supply : 1500VAC per 1 min. DC power supply : 500VDC per 1 min. Common : 500VDC per 1 min.
<b>Insulation resistance</b>	500Vdc, 100MΩ or more on the above terminals
<b>Sampling rate</b>	Approx. 20ms (50 times per second) ~ Approx. 2s (0.5 times per second)
<b>Moving average</b>	None / 2 / 4 / 8 / 16 / 32 / 64 selectable
<b>Display update cycle</b>	Max. 50msec (20 times per sec ) to Min. 1s (1 time per sec)
<b>Built in excitation (Sensor power supply)</b>	12Vdc±10% 50mA, 24Vdc±10% 25mA selectable, 10Vdc±10% 60mA selectable
<b>Standard accessory</b>	1 unit sticker, 2 terminal covers, 2 bands, connector for BCD output when BCD option
<b>Optional accessory</b>	Front panel cover (WP-3)

◆ Comparative output specifications

<b>Comparison result</b>	5 setpoints (HH/HI/GO/LO/LL)						
<b>Output method</b>	Relay output or photocoupler output						
<b>Output rating</b>	<b>Relay output :</b> Output rating AC250V 1A (resistance load), DC30V 1A (resistance load) The electrical life 50 thousand times (The rated load) <b>Photocoupler output:</b> Output rating DC30V 20mA Output saturation 1.2V or less (When 20mA)						
<b>Setting range</b>	-199999 to 199999						
<b>Hysteresis</b>	Able to set 1 to 9999 digit for each setpoints						
<b>Operation speed</b>	Relay : Max. 7ms, Photocoupler : Max. 1ms						
<b>Comparative condition</b>	Result	Comoarator output					Relay contact
		HH	HI	GO	LO	LL	
Display value > HH > HI	HH/HI	ON	ON	OFF	OFF	OFF	Normal open
HH ≥ Display value > HI	HI	OFF	ON	OFF	OFF	OFF	
HH, HI ≥ Display value ≥ LL, LO	GO	OFF	OFF	ON	OFF	OFF	
LO ≥ Display value ≥ LL	LO	OFF	OFF	OFF	ON	OFF	
L > LL > Display value	LO/LL	OFF	OFF	OFF	ON	ON	

◆ Analog output specifications

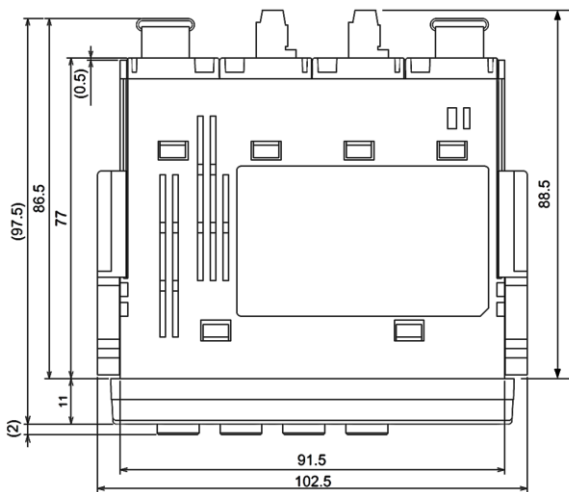
<b>Analog output</b>	<b>Load resistance</b>	<b>Accuracy</b>	<b>Ripple</b>
0 to 1V	10kΩ or more	±0.1% of FS	±50mVp-p
0 to 10V			
1 to 5V			
4 to 20mA	550Ω or less		±20mVp-p
<b>Conversion</b>	D/A		
<b>Resolution</b>	15 bit		
<b>Response time</b>	Approx. 80ms		

◆ BCD output specifications

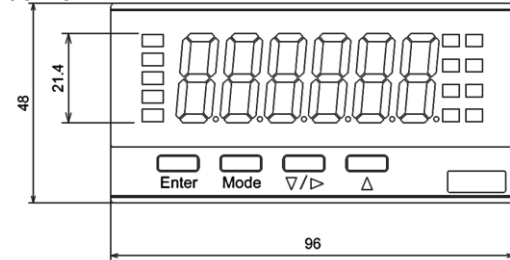
	<b>BCD output</b>
<b>Output method</b>	TTL or NPN open collector
<b>TTL specifications</b>	Output logic : Selectable TTL level Fan-out 2 (CMOS compatible)
<b>NPN Open collector specifications</b>	Output logic : Selectable DC30V 10mA (MAX) Output saturation voltage: No more than 1.2V or less
<b>ENABLE input specifications</b>	When Enable and COM short, each output will be "OFF". (Open collector: transistor OFF, TTL: High impedance) ON electric voltage: 0 to 0.8V OFF electric voltage: 4.2 to 5V Input current: No more than -0.5mA

**Dimensions**

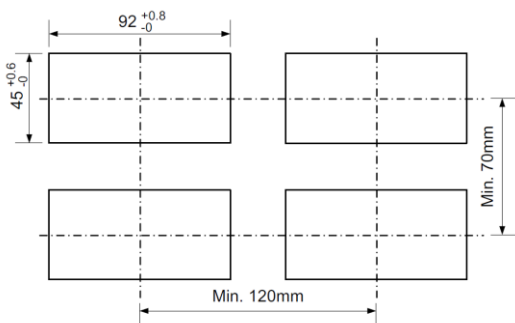
◆ Front view



◆ Side view



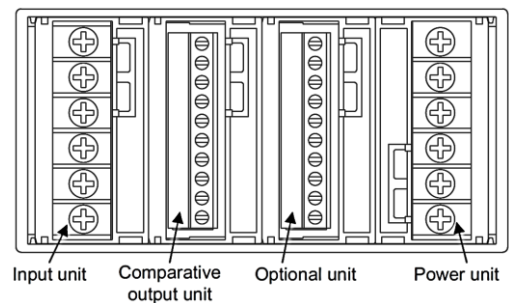
◆ Panel cutout



(Unit : mm)

**Terminal Connections**

◆ Rear view



\* Specification is subject to change without notice