W75×H25mm Digital graphic panel meter for mosaic panel

▣ Features

- Various input function
  : 0-2VDC, 0-10VDC, 1-5VDC,
  DC0-1mA, DC4-20mA
- Prescale function(High / Low scale setting)
- Max. display : -999 to 9999
- Error display function and self diagnosis function
- High quality by microprocessor built-in
- Display accuracy :F.S. ±0.2% rdg ±1digit

Please read "Caution for your safety" in operation manual before using.

▣ Ordering information

M **4** **V** – ☐

Input	No mark	Standard
	X	Option
Size	V	W75×H25mm
Digit	4	9999(4digit)
Item	M	Meter

※It is enable to customized with another specifications except for standard one.

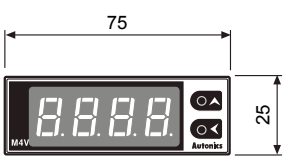
▣ Specifications

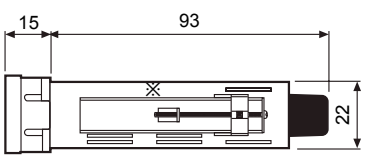
Model		**M4V**				
Measurement function		DC volt			DC ampere	
Measurement input		0-2VDC	1-5VDC	0-10VDC	DC0-1mA	DC4-20mA
Max. allowable input		110% of measurment input				
Power supply		12-24VDC				
Allowable voltage range		90 to 110% of rated voltage				
Power consumption		Approx. 2W				
Display method		7 Segment red LED display(Segment height : 14mm)				
Display accuracy		0 to 50℃ : F.S. ±0.2% rdg ±1digit -10 to 0℃ : F.S. ±0.3% rdg ±1digit				
Sampling period		500ms				
Setting method		Scale set by front swithces				
Set-diagnosis		Error indication				
Insulation resistance		Min. 100MΩ(at 500VDC megger)				
Dielectric strength		2000VAC 50/60Hz for 1 minute				
Noise strength		±300V the square wave noise(pulse width : 1μs) by the noise simulator				
Vibration	Mechanical	0.75mm amplitude at frequency of 10 to 50Hz(for 1 min.) in each of X, Y, Z directions for 1hour				
	Malfunction	0.5mm amplitude at frequency of 10 to 50Hz(for 1 min.) in each of X, Y, Z directions for 10minutes				
Shock	Mechanical	300m/s²(approx. 30G) in X, Y, Z direction for 3 times				
	Malfunction	100m/s²(approx. 10G) in X, Y, Z directions for 3 times				
Environ-ment	Ambient temperature	-10 to 50℃, storage : 20 to 60℃				
	Ambient humidity	35 to 85%RH, storage : 35 to 85%RH				
Accessory		Mosaic graphic panel mounting bracket				
Unit weight		Approx. 83g				

※Environment resistance is rated at no freezing or condensation.

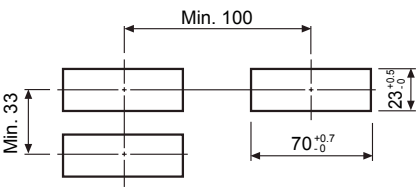
▣ Dimensions

(unit: mm)



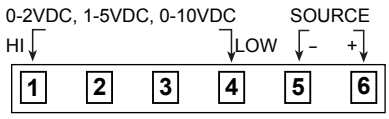
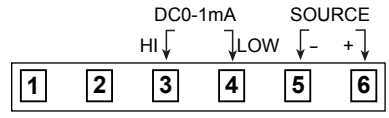
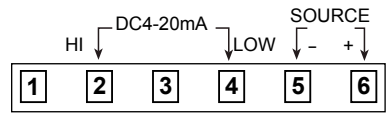


● **Panel cut-out**



※It is attached on mosaic graphic panel. Please mount the unit properly on general panel

▣ Input and connection

Input	Display	Connection
0-2VDC	0-2U	
1-5VDC	1-5U	
0-10VDC	0-10	
DC0-1mA	1mA	
DC4-20mA	4-20	

▣ Factory default setting

In-t	0-2U	dot	0.0
L-SC	0.0	In-b	00
H-SC	100.0	LoC	OFF

▣ Error display

Display indicates "Error" when wrong measuring input value is applied.

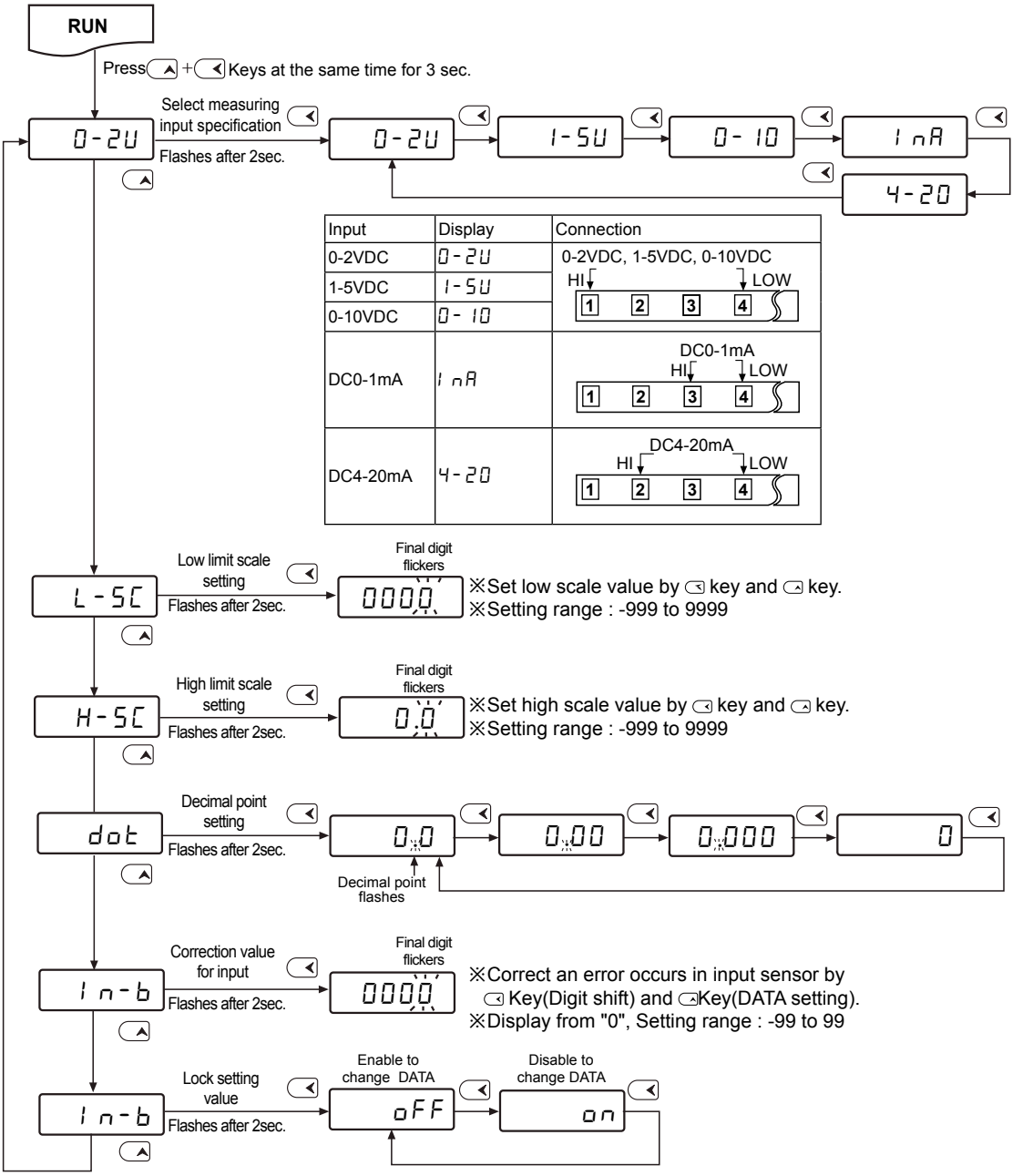
◎ Display an Error

- In case of lower value than measuring input value.
  Ex)In case of applying DC2mA when measuring input range is selected as DC4-20mA : LLLL flashes.
- In case of higher value than measuring input value.
  Ex)In case of applying DC22mA when measuring input range is selected as DC4-20mA : HHHH flashes.
- In case of damaging the memory chip by high frequency noise, strong surge noise : Er-E flashes.

◎ Cancellation of Error

- HHHH and LLLL Error is to exceed measuring input range, therefore if measuring input value is applied with in input range, Error message will be cleared automatically.
- ouEr is indicated by mis-connection or in case of occurring something wrong in measuring input. Please cut off the power and then check measuring input.
- Er-E indicates data damage programmed in memory chip, and damaged data can not be recovered.
  Ask a dealer shop for A/S.
  It is impossible to clear Er-E by end-user, therefore it must be repaired by our engineer.

▣ Parameter description



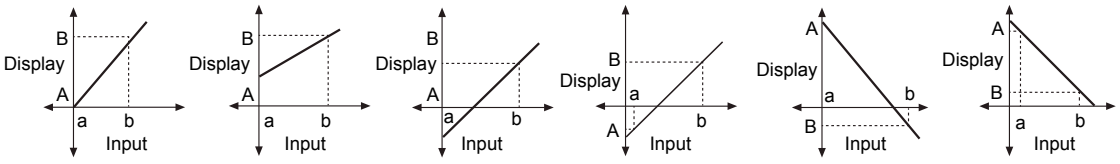
◎ How to change the setting value

1. When advance to MODE, change digit flashing by Key then set DATA value by Key.
2. After complete DATA value setting, please press Key for 2sec. then it will move to next MODE saving DATA.
3. Press Key for 2sec. to return RUN mode after changing(Setting) DATA value in each MODE.

※Press Key for 2sec., then it will return to RUN without change setting value.
※When checking the setting value only in each mode. Press Key for 2sec., then press for 2sec. again.
(If press continuously, it will not advance to next mode and return to RUN mode)
※If any key is untouched for 60sec., it will return to RUN mode.

▣ Prescale function

This function is to display setting of particular high/low-limit value in order to display high/low-limit value of measuring input.
If measuring inputs are a or b and display values are A or B, it will display a=A, b=B as below graph.

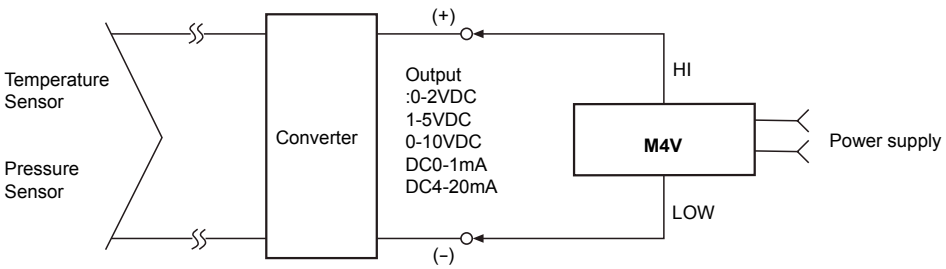


Ex) Able to set the display value for input as certain value(Not "0") by using prescale function.

Measuring input	Prescale setting value		Display	Graph
0-10VDC	L-Scale : 0	H-Scale : 200	0 to 200	①
	L-Scale : 50	H-Scale : 200	50 to 200	②
	L-Scale : -100	H-Scale : 200	-100 to 200	③
	L-Scale : 200	H-Scale : -50	200 to -50	⑤

※Prescale value setting range → L-SC(Low limit) : -999 to 9999, H-SC(High limit) : -999 to 9999
But, there must be offset "1" between L-SC and H-SC.

▣ Application of connections



▣ Proper usage

- Please read this catalog before purchase Panel meter.
- Ambient condition
  - Please use this product under -10 to 50℃ of ambient operating temperature and less than 35 to 85%RH of humidity. Moreover, use this item near normal temperature 20℃, the most important condition, which manages the accuracy.
  - Please avoid the condition of dew status by rapidly changing temperature.
  - Please avoid too much vibration or shock.
  - Please avoid the place where there are drag, dust, and chemical agent or gas, which is destructive to electrical parts.
  - Do not use this item where the voltage or noise is over the proper specification.
    it may cause malfunction.
- Storage
  When you keep it, please avoid a direct ray of light and keep it under -20 to 60℃ of ambient operating temperature and less than 35 to 85%RH of humidity. Wrap and keep it as initial state.
- Input Line
  Shield wire must be used when the measuring input line is getting longer or there are too much noise.