■ Features

● Various input function (0-2V, 0-10V, 1-5V, 0-1mA, 4-20mA)

•Prescale function(High/Low scale setting)

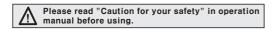
●Max.display: -999 ~ 9999

•Error display function or self diagnosis function

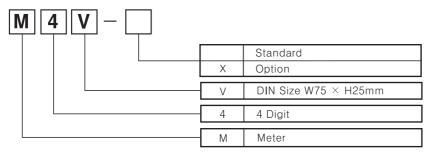
•High quality by Microprocessor built-in

•Display accuracy : F · S $\pm 0.2\%$, rdg ± 1 digit





Ordering information



^{*}Other specifications are optional.

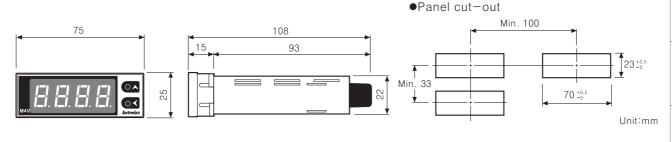
■ Specifications

Model		M4V	
Measurement function		DV Volt, DC Ampere, 4-20mADC, 1-5VDC	
Power supply		12-24VDC	
Operating voltage		90 ~ 110% of rated voltage	
Power consumption		Approx. less than 2W	
Display method		7 Segment red LED display(Segment height 14mm)	
Display accuracy		$0 \sim +50^\circ\mathrm{C}: \mathrm{F}\cdot\mathrm{S}\pm 0.2\%(\mathrm{rdg}\pm 1\mathrm{digit}), -10 \sim 0^\circ\mathrm{C}: \mathrm{F}\cdot\mathrm{S}\pm 0.3\%(\mathrm{rdg}\pm 1\mathrm{digit})$	
Sampling time		0.5 sec.	
Setting method		Scale set by front S/W key	
Max. allowable input		150% of measurement input	
Set-diagnosis		Error indication	
Insulation resistance		Min. 100MΩ (at DC500V)	
Dielectric strength		2000VAC 50/60Hz for 1 minute	
Noise strength		$\pm 300 \text{V}$ the square wave noise(pulse width:1 μ s) by the noise simulator	
Vibra	Mecanical	0.75mm amplitude at frequency of 10 ~ 50Hz in each of X, Y, Z directions for 1hour	
-tion	Malfunction	$0.5 mm$ amplitude at frequency of $10 \sim 50 Hz$ in each of X, Y, Z $$ directions for $10 minutes$	
Shock	Mecanical	300m/s² (30G) in X, Y, Z direction for 3 times□	
SHOCK	Malfunction	100m/s^2 (10G) in X, Y, Z directions for 3 times	
Ambient temperature		-10 ~ +50℃ (at non-freezing status)	
Storage temperature		-20 ~ +60℃ (at non-freezing status)	
Ambient humidity		35 to 85%RH	
Weight		Approx. 83g	

E-12 Autonics

Graphic Panel Meter

Dimensions



■Input and connection

Input	Display	Connection
0 - 2VDC	0 - 20	SOURCE DC0-2V,DC1-5V,DC0-10V 12-24VDC
1 - 5VDC	1-50	HI
0 - 10VDC	0 - 10	1 2 3 4 5 6
0 - 1mADC	InΠ	SOURCE 12-24VDC HI
4 - 20mADC	4-20	SOURCE 12-24VDC HI

■ Factory default setting

In-E	0 - 20	dot	0.0
L - 5E	0.0	In-b	0 0
H-5E	100.0	LoE	oFF

ERROR display

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

©ERROR indication

 $\bullet \mbox{In case}$ of lower value than measuring input value.

Ex) In case of applying 2mADC when measuring input range is selected as 4 to 20mADC. - Flickers " LLLL "

•In case of higher value than measuring input value.

Ex) In case of applying 22mA when measuring input range is selected as 4 to 20mA. - Flickers " HHHH "

• In case of damaging the memory chip by high frequency noise, strong surge noise. - Flickers " Er-E "

OClearance of ERROR indication

- •"HHHH" and "LLLL" ERROR is to exceed measuring input range, therefore if measuring input value is applied within input range, ERROR message will be cleared automatically.
- •"oVEr" 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" is indicated when data programmed in memory chip is damaged.

 It is impossible to clear "Er-E" by end-user, therefore it must be repaired by our engineer.

(A) Counter

(B) Timer

(C) Temp.

(D) Power controller

(E) Panel meter

(F) Tacho/ Speed/ Pulse meter

(G) Display unit

(H) Sensor controller

(I) Proximity sensor

(J) Photo electric sensor

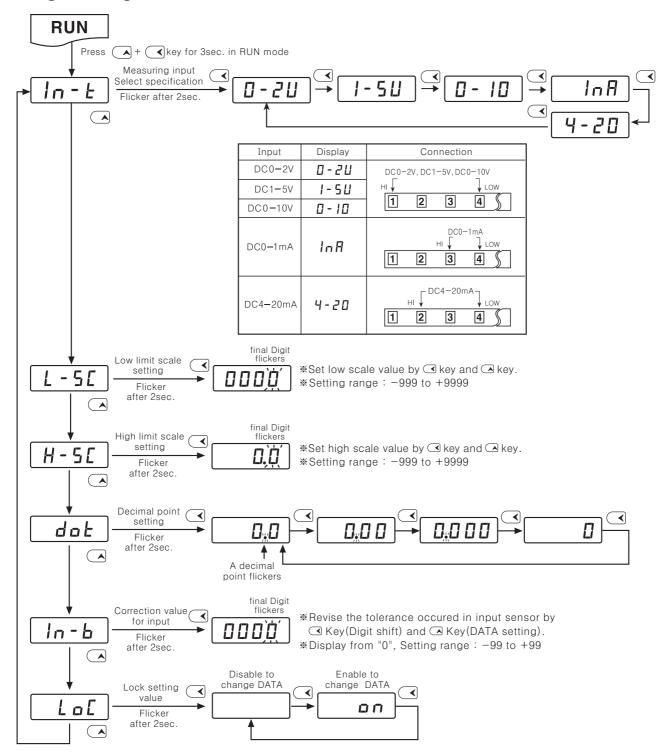
(K) Pressure sensor

(L) Rotary encoder

(M) 5-Phase stepping motor & Driver & Controller

Autonics E-12

Programming



OHow to change the setting value

- 1. When entering into MODE, change digit flickering 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 2 sec. to return RUN mode after changing(setting) DATA value in each MODE.
- *Press KEY for 2sec., then it will retrun to RUN without change setting value.
- \divideontimes When cheking the setting value only in each mode. Press \frown Key for 2 sec., then press for 2 sec. again.
 - (If press continuously, it will not advance to next mode and return to RUN mode)
- ₩If no key touched for 60sec., it will return to RUN mode.

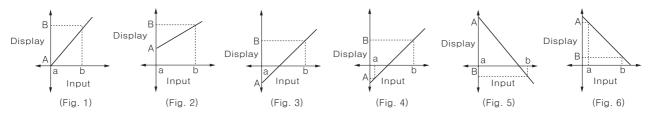
E-13 Autonics

Graphic Panel Meter

■PRESCALE function

This function is to display setting (-999 to 9999) 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.

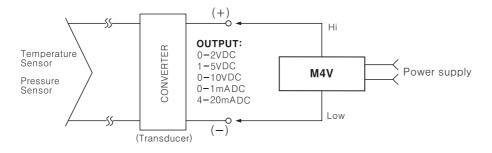


Ex) Able to set the display value for input as certain value (Not "0") by using prescale function.

Measuring input□	Prescale setting value	Display	Graph
	L-scale: 0 H-scale: 200	0 ~ 200	(Fig. 1)
DC0-10V	L-scale: 50 H-scale: 200	50 ~ 200	(Fig. 2)
200 100	L-scale: -100, H-scale: 200	- 100 ~ 200	(Fig. 3)
	L-scale: 200, H-scale: -50	200 ~ -50	(Fig. 5)

**L-SC(Low limit): -999 ~ +9999, H-SC(High limit): -999 ~ +9999
But. There must be offset "1" between L-SC and H-SC.

Application of connections



Proper usage

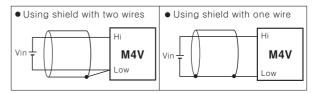
- 1. Please read this Catalog before buying Panel Meter.
- 2. Ambient condition
 - Please use this product under −10~50°C of ambient operating temperature and less than 35~85%RH of humidity. Moreover, use this item near normal tem −perature 20°C, the most important condition, which manages the accuracy.
 - Must avoid the condition of dew status by rapidly changing temperature.
 - Must avoid heavy vibration or shock.
 - Please avoid the place where there are dreg, 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.

3. Storage

When you keep it, please avoid a direct ray of light and keep it under $-20\sim60\,^{\circ}\mathrm{C}$ of ambient operating temperature and less than 35~85%RH of humidity. Wrapping and keeping it as sold is a good condition.

4. Input Line

Shield wire must be used when the measuring input line is getting longer or there are lots of noises.



(A) Counter

(B) Timer

(C) Temp. controller

(D) Power controller

(E) Panel meter

(F) Tacho/ Speed/ Pulse meter

(G) Display unit

(H) Sensor controller

(I) Proximity

(J) Photo electric sensor

(K) Pressure sensor

(L) Rotary encoder

(M) 5-Phase stepping motor & Driver & Controller

Autonics E-14