Autonics PANEL METER MT4N SERIES

: Upgrade feature

Thank you very much for selecting Autonics products For your safety, please read the following before using.

Caution for your safety

₩Please keep these instructions and review them before using this unit *Please observe the cautions that follow;

A Warning Serious injury may result if instructions are not followed.

Caution Product may be damaged, or injury may result if instructions are not followed.

he following is an explanation of the symbols used in the operation manual.

▲ Caution: Injury or danger may occur under special conditions.

Marning

- In case of using this unit with machinery (Nuclear power control, medical equipment, vehicle, train, airplane, combustion apparatus, entertainment or safety device etc), it is required to install fail-safe device.

- 3.Do not connect, inspect or repair terminals when it is power on.
- It may give an electric shock.

 4.Do not disassemble or modify this unit. If needs, please contact us.
- It may cause a fire and give an electric shock.

 5.Please check the number of terminal when connecting power or measured input.

 It may cause a fire.

▲ Caution

- 1.This unit shall not be used outdoors.

 It might shorten the life cycle of the product or give an electric shock.

 Use this product indoors only. Do not use the product outdoors or at locations subject to the temperatures or humidity outside. (Example: rain, dirty, frost, sunlight, condensation, etc.)
- temperatures or humidity outside. (Example: rain, dirty, frost, sunlight, condensation, etc.)

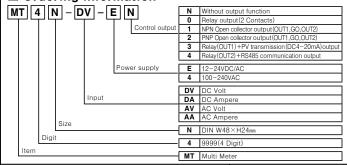
 2. When connecting wire, use AWG 20(0.50mm) be used and tighten screw bolt on terminal block with 0.74 to 0.90N m strength.
- with 0.74 to 0.90N·m strength.
 It may cause a malfunction or fire due to contact failure.

 3.Please observe the rated specification.

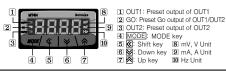
 3.Please observe the life revole of the product and cause a fire
- It might shorten the life cycle of the product and cause a me.

 4.Do not use beyond of the rated switching capacity of relay contact.
- n and fire etc. 5.In cleaning the unit. do not use water or an oil-based detergent.
- It may cause a fire and give an electric shock
 6.Do not use this unit in place where flammable or explosive gas, humidity, direct ray of the light, radiant heat, vibration or impact, etc. exists.
 It may cause a fire or explosion.
 7.Do not inflind dust or wire dregs into the unit.
- 8.Please wire properly after checking the polarity of measuring terminals.

Ordering information



Front panel identification



• MT4N-DA-□□

● MT4N-AA-□□

1 2 3 4 5 6

1 2 3 4 5 6

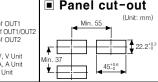
• NPN Open Collector output [MT4N-___1]

7 8 9 10 11 12

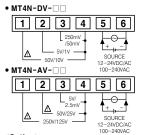
7 8 9 10 11 12

ل الحالل الحا

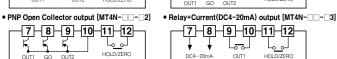
500mA/250mA -5A/2.5A

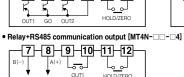


■ Terminal connection

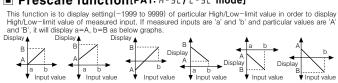


<Option> • Relay output [MT4N-□□-□0] 7 8 9 10 11 12





■ Prescale function[PA1: H-5[/L-5[mode]



Error display function

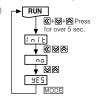
Display	Description					
нннн	Flashes when measured input is exceeded the max.allowable input(110%)					
	Flashes when measured input is exceeded the min.allowable input(-10%)					
d-HH	Flashes when display input is exceeded H-5[setting value					
d-LL	Flashes when display input is exceeded L-5L setting value					
F-HH	 HH Flashes when input frequency is exceeded the max. display value of measuring range 					
-	[]					

□□Er Flashes when it exceeds zero range(±99) Zero adjusting error is returning to measuring mode after [ouEr] flashes twice.

※ Refer to "■ Measuring AC frequency function" for frequency

Initialization function

It initializes parameter setting state. Press ☑
+☑+፩ keys simultaneously for over 5 sec. in RUN status, it returns to factory default value. Ex)



■ Display cycle delay function [PA 2: dt 5.b mode]

In some applications the measured input may fluctuate which in turn causes the display to fluctuate. By adjusting the display cycle delay function time in the d15 \pm mode in parameter 2, the operator can adjust the display time within a range of 0.1 sec to 5 sec. For example, if the operator sets the display cycle time to 4.0 sec., the display at used displayed will be the average input value over 4 sec. and also will show any changes if any every 4 sec.

■ Startup compensation timer function [PA 2:5₺₦₺ mode]

This time function limits the operation of an output until the measured input(overvoltage or inrush current) is stable at moment of power on. All outputs are off during startup compensation time Setting range: 00 0 to 99 9 (Unit: sec.) Factory default: 00 0

* The above specifications are subject to change without notice.

Specifications 23°C ± 5°C ≅ DC Type: F.S.±0.1% rdg±2digit / AC Type: F.S.±0.3% rdg±3digit DC/AC Type: Within F.S.±0.3% rdg±3digit only for Current 5A terminal -10°C to 50°C ≅ DC/AC Type: F.S.±0.5% rdg±3digit DC Voltage/Current, AC Voltage/Current, AC Frequency ractical oversampling using successive approximation AD(reset output NPN/PNP Open Collector output # 12-24VDC ±2V 50mA Max. (Load resistance) NFMFMF Open Conductions 1. Medical Process 1. Medic Measurement range: 0.100 to 9999Hz(Differ according to decimal point position /ibration ent

- Approx. 64g
- Environment resistance is rated at no freezing or condensation

Specification of measured input and range

O − 50V SgV A33.35kΩ O.00 to 50.00(Fixed) O − 5V Sy A3.35kΩ O.00 to 10.00(Fixed) O − 5V Sy A3.35kΩ O.00 to 10.00(Fixed) O − 250mV SgmV O − 15kΩ O − 10V	Type	Measured input and range		Input impedance	Standard [5tnd]	Praescale [5[AL]
DC 0−10V 10V 434.35kΩ 0.00 to 10.00(Fixed) 0−5V 5V 43.35kΩ 0.000 to 5.000(Fixed) 0−1V IV 43.35kΩ 0.000 to 5.000(Fixed) 0−250mV 250mV 2.15kΩ 0.00 to 250.0(Fixed) 0−50mM 50mM 0.1Ω 0.0 to 50.00(Fixed) 0−199.9 to 999.9(Variable) −199.9 to 999.9(Variable) −199.9 to 999.9(Variable) 0−50mM 50mM 0.1Ω 0.0 to 50.00(Fixed) −1.999 to 999.9(Variable) −1.999 to 999.9(Variable) 0−200mM 50mM 0.1Ω 0.0 to 50.00(Fixed) −1.999 to 99.99(Variable) −1.999 to 99.99(Variable) 0−200mM 50mM 0.1Ω 0.0 to 50.00(Fixed) 0−20mM 50mM 1.1Ω 0.00 to 50.00(Fixed) 0−5mM 5mM 11.1Ω 0.000 to 50.00(Fixed) 0−5mM 5mM 11.1Ω 0.000 to 50.00(Fixed) 0−25mM 22mM 11.1Ω 0.000 to 5.000(Fixed) 0−250V 252V 1.109MΩ 0.0 to 250.0(Fixed) 0−125V 125V 1.109MΩ 0.0 to 125.0(Fixed) 0−25V 225V 222kΩ 0.00 to 25.00(Fixed) 0−2.5V 25V 222kΩ 0.00 to 50.00(Fixed) 0−2.5V 25V 22kΩ 0.000 to 5.000(Fixed) 0−2.5M 53M 0.01Ω 0.000 to 5.000(Fixed) 0−2.5M 53M 0.01Ω 0.000 to 5.000(Fixed) 0−2.5M 253M 0.01Ω 0.000 to 5.000(Fixed) 0−2.5M 253mM 0.1Ω 0.000 to 5.000(Fixed) 0−2.5M 255mM 0.1Ω 0.000 to 5.000(Fixed) 0−2.5M 0.000 to 5.000(Fixed) 0.000 to 5.000(Fix	Type				Display rang [Fixed]	Display range [Variable]
DC		0-50V	[50V]	434.35kΩ	0.00 to 50.00(Fixed)	
Volt 0-1V (IV 43.35kΩ 0.000 to 1.000(Fixed) 0-250mV 225mV 2.15kΩ 0.0 to 250.0(Fixed) 0-50mV (5gmV 2.15kΩ 0.00 to 50.00(Fixed) 0-19.9 to 99.99(Variable) 0-50mA (5gmA) 0.1Ω 0.0 to 50.00(Fixed) 0-20mA (2gmA) 1.1Ω 0.00 to 50.00(Fixed) 0-50mA (5gmA) 1.1Ω 0.00 to 50.00(Fixed) 0-50mA (5gmA) 1.1Ω 0.00 to 50.00(Fixed) 0-5mA (5mA) 11.1Ω 0.000 to 5.000(Fixed) 0-5mA (5mA) 11.1Ω 0.000 to 5.000(Fixed) 0-25mA (2mA) 11.1Ω 0.000 to 5.000(Fixed) 0-250V (25V) 1.109MΩ 0.00 to 12.000(Fixed) 0-125V (125V) 1.109MΩ 0.0 to 125.0(Fixed) 0-25V (25V) 222kΩ 0.00 to 50.00(Fixed) 0-25V (25V) 222kΩ 0.000 to 5.000(Fixed) 0-2.5V (25V) 222kΩ 0.000 to 5.000(Fixed) 0-2.5V (25V) 22kΩ 0.000 to 5.000(Fixed) 0-5N (5A) 0.01Ω 0.000 to 5.000(Fixed) 0-2.5N (25A) 0.01Ω 0.000 to 5.000(Fixed) 0-2.5N (25A) 0.01Ω 0.000 to 5.000(Fixed) 0-2.5M (25A) 0.01Ω 0.000 to 5.000(Fixed) 0-2.5M (25A) 0.01Ω 0.000 to 5.000(Fixed) 0-2.5M (25B) 0.000 to 5.000(Fixed) 0-2.5M (25B) 0.000 to 5.000(Fixed) 0-2.5M (25B) 0.000 to 5.000(Fixed) 0.0000 to 5.000(Fixed) 0.000 to 5.000(Fixed) 0.000 to 5.000(Fixed) 0.000 to 5.000(F		0-10V	[IDV]	434.35kΩ	0.00 to 10.00(Fixed)	
1						
0-50mV 50mV 2.15kΩ 0.00 to 50.00(Fixed)	Volt	0-1V	[IV]	43.35kΩ	0.000 to 1.000(Fixed)	-1999 to 9999(Variable)
0-500mA 500mA 0.1 Ω 0.0 to 500.0(Fixed)			[250mV]	2.15kΩ	0.0 to 250.0(Fixed)	-199.9 to 999.9(Variable)
DC		0-50mV	[50mV]	2.15kΩ	0.00 to 50.00(Fixed)	
DC Ampere 0−50mA 50mA 1.1 Ω 0.00 to 50.00(Fixed) 4−20mA 4−20mA 1.1 Ω 4.00 to 20.00(Fixed) 4−20mA 1.1 Ω 4.00 to 20.00(Fixed) 4−20mA 5mA 11.1 Ω 0.000 to 5.000(Fixed) 4−20mA 2mA 11.1 Ω 0.000 to 5.000(Fixed) 4−20mA 2mA 11.1 Ω 0.00 to 2.000(Fixed) 4−20mA 2mA 11.1 Ω 0.00 to 2.50.0(Fixed) 4−20mA 2mA 11.1 Ω 0.00 to 2.50.0(Fixed) 4−20mA 225V 222kΩ 0.00 to 55.00(Fixed) 4−20mA 25V 222kΩ 0.00 to 55.00(Fixed) 4−20mA 25V 222kΩ 0.000 to 55.00(Fixed) 4−20mA 4		0-500mA	[500mA]	0.1 ♀	0.0 to 500.0(Fixed)	-1.999 to 9.999(Variable)
DC Ampere		0-200mA	[200mA]	0.1♀	0.0 to 200.0(Fixed)	(Display position will be
Ampere 4-20mA (Ψ-20mA) 1.1 Ω 4.00 to 20.00(Fixed) decimal point position.) 0-5mA [5mA] 11.1 Ω 0.000 to 5.000(Fixed) *Please wire proper terminal to fix max. input voltage within 30 to 100% of input leminal. 0-250V [25UV] 1.109MΩ 0.0 to 250.0(Fixed) to fix max. input voltage within 30 to 100% of input leminal. AC 0-50V [5DV] 222kΩ 0.00 to 25.00(Fixed) When it is higher than input voltage, it may cause breakdown of terminal and over display range and over display range and the accuracy is decreased when it is connected to the terminal under 30%. AC 0-5A [5A] 0.01Ω 0.000 to 2.500(Fixed) over display range and the accuracy is decreased when it is connected to the terminal under 30%. AC 0-500mA [5gmA] 0.1Ω 0.0 to 250.0(Fixed) the terminal under 30%.		0-50mA	[50mA]	1.1♀	0.00 to 50.00(Fixed)	
0-2mA [2mA] 11.1 Ω 0.000 to 2.000(Fixed)	Ampere	4-20mA	[4-20mA]	1.1♀	4.00 to 20.00(Fixed)	
0-250V (250V) 1.109MΩ 0.0 to 250.0(Fixed) 0-125V (125V) 1.109MΩ 0.0 to 125.0(Fixed) AC 0-50V (50V) 222kΩ 0.00 to 50.00(Fixed) 0-25V (25V) 222kΩ 0.000 to 50.00(Fixed) 0-5V (5V) 22kΩ 0.000 to 5.00(Fixed) 0-2.5V (25V) 22kΩ 0.000 to 5.00(Fixed) 0-2.5V (25V) 22kΩ 0.000 to 2.50(Fixed) 0-5A 5A 0.01Ω 0.000 to 5.000(Fixed) 0-2.5A (25A) 0.01Ω 0.000 to 5.000(Fixed) 0-2.5A (25A) 0.01Ω 0.000 to 5.000(Fixed) 0-2.5A (25A) 0.01Ω 0.000 to 5.000(Fixed) 0-2.5B (25A) 0.1Ω 0.000 to 5.000(Fixed) 0-2.5D (25DmA) 0.1Ω 0.0 to 500.0(Fixed) 0-250mA (25DmA) 0.1Ω 0.0 to 250.0(Fixed) 0-20mA (10DmA) 0.5Ω 0.0 to 100.0(Fixed) 0-100mA (10DmA) 0.5Ω 0.0 to 100.0(Fixed)		0-5mA	[5mA]	11.1Ω	0.000 to 5.000(Fixed)	
O-125V I25V 1.109MΩ 0.0 to 125.0(Fixed) 0.102 0.00 to 125.0(Fixed) 0.00 to 125.0(Fixed) 0.00 to 125.0(Fixed) 0.00 to 125.0(Fixed) 0.00 to 125.00(Fixed)		0-2mA	[2mA]	11.1Ω	0.000 to 2.000(Fixed)	
AC 0-50V [50V] 222kΩ 0.00 to 50.00(Fixed) Volt 0-25V [25V] 222kΩ 0.00 to 50.00(Fixed) 0-5V [5V] 222kΩ 0.00 to 5.000(Fixed) 0-5V [5V] 22kΩ 0.000 to 5.000(Fixed) 0-2.5V [25V] 22kΩ 0.000 to 5.000(Fixed) 0-2.5V [25V] 22kΩ 0.000 to 5.000(Fixed) 0-5A [5A] 0.01Ω 0.000 to 5.000(Fixed) 0-2.5A [2.5A] 0.01Ω 0.000 to 2.500(Fixed) 0-2.5A [2.5A] 0.01Ω 0.000 to 2.500(Fixed) AC 0-500mA [500mA] 0.1Ω 0.00 to 2.500(Fixed) 0-250mA [250mA] 0.1Ω 0.0 to 250.0(Fixed) 0-250mA [250mA] 0.5Ω 0.0 to 250.0(Fixed) 0-100mA [100mA] 0.5Ω 0.0 to 100.0(Fixed)		0-250V	[250V]	1.109MΩ	0.0 to 250.0(Fixed)	
AC 0−50V [50V] 222kΩ 0.00 to 50.00(Fixed) 0−25V [25V] 222kΩ 0.000 to 25.00(Fixed) 0−5V [5V] 22kΩ 0.000 to 5.000(Fixed) 0−2.5V [25V] 22kΩ 0.000 to 5.000(Fixed) 0−2.5V [25V] 22kΩ 0.000 to 2.500(Fixed) 0−5A [5A] 0.01Ω 0.000 to 5.000(Fixed) 0−2.5A [25A] 0.01Ω 0.000 to 5.000(Fixed) 0−2.5A [25A] 0.01Ω 0.000 to 5.000(Fixed) 0−2.5A [25B] 0.01Ω 0.000 to 2.500(Fixed) 0−2.5A [25B] 0.01Ω 0.000 to 2.500(Fixed) 0−2.5D (25DMA) 0.1Ω 0.000 to 2.500(Fixe		0-125V	[125V]	1.109MΩ	0.0 to 125.0(Fixed)	
Volt 0−25V [25V] 222kΩ 0.00 to 25.00(Fixed) input voltage, it may cause breakdown of terminal and over display range and the accuracy is decreased when it is connected to the terminal under 30%. 0−2.5V [25V] 22kΩ 0.000 to 2.500(Fixed) over display range and the accuracy is decreased when it is connected to the terminal under 30%. AC 0−2.5A [25A] 0.01Ω 0.000 to 2.500(Fixed) when it is connected to the terminal under 30%. AC 0−500mA [50gmA] 0.1Ω 0.0 to 250.0(Fixed) the terminal under 30%. Ampere 0−250mA [25gmA] 0.5Ω 0.0 to 100.0(Fixed) the terminal under 30%.		0-50V	[50V]	222kΩ	0.00 to 50.00(Fixed)	
0-2.5V 22kΩ 0.000 to 2.500(Fixed) 0-5A [5A] 0.01Ω 0.000 to 5.000(Fixed) 0-2.5A [2.5A] 0.01Ω 0.000 to 5.000(Fixed) 0-2.5A (2.5A] 0.01Ω 0.000 to 2.500(Fixed) 0.000 to 5.000(Fixed) 0.000 to 5.000(Fixed) 0.000 to 5.00.0(Fixed) 0.000 to 5.000(Fixed) 0.000 to 5.000(Fix	Volt	0-25V	[25V]	222kΩ	0.00 to 25.00(Fixed)	
0-5A [5A] 0.01 \(\Omega\$ 0.000 to 5.000(Fixed) the accuracy is decreased when it is connected to the terminal under 30%.		0-5V	[5V]	22kΩ	0.000 to 5.000(Fixed)	breakdown of terminal and
O -2.5A (2.5A) O.01 \(\omega\$ 0.000 to 2.500 (Fixed) O -2.5A (2.5A) O.01 \(\omega\$ 0.000 to 2.500 (Fixed) AC O -500mA (500mA) 0.1 \(\omega\$ 0.0 to 500.0 (Fixed) O -250mA (250mA) 0.1 \(\omega\$ 0.0 to 500.0 (Fixed) O -250mA (250mA) 0.1 \(\omega\$ 0.0 to 500.0 (Fixed) O -100mA (100mA) 0.5 \(\omega\$ 0.0 to 100.0 (Fixed)		0-2.5V	[2.5V]	22kΩ	0.000 to 2.500(Fixed)	
O=2.5A (c.5A 0.01 \(\) 0.000 fo 2.500(Fixed) AC O=500mA [500mA] 0.1 \(\) 0.0 to 500.0(Fixed) Ampere O=250mA (250mA) 0.1 \(\) 0.0 to 2.50.0(Fixed) O=00mA (100mA) 0.5 \(\) 0.0 to 100.0(Fixed)		0-5A	[5A]	0.01Ω	0.000 to 5.000(Fixed)	
AC 0=500mA [500mA] 0.1 \Q 0.0 to 500.0(Fixed) Ampere 0=250mA [250mA] 0.1 \Q 0.0 to 250.0(Fixed) 0=100mA [100mA] 0.5 \Q 0.0 to 100.0(Fixed)		0-2.5A	[2.5A]	0.01 Ω	0.000 to 2.500(Fixed)	
0-100mA [IDDmA] 0.5 \(\O \) 0.0 to 100.0(Fixed)	AC		[500mA]			the terminal under 30%.
	Ampere		, ,			
0-50mA [5gmA] 0.5Ω 0.00 to 50.00(Fixed)		0-100mA	[IDD mA]		0.0 to 100.0(Fixed)	
		0-50mA	[50 mA]	0.5♀	0.00 to 50.00(Fixed)	

Monitoring peak display value function [PA 0: HPEL/L PEL mode, PA 2: PELL mode]

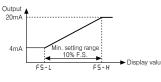
It monitors Max./Min. value of display value based on current display value and then display the data in HPFL mode and LPFL mode of parameter 0. Set delay time(0 to 30 sec.) in PFL mode of parameter 2 in order to avoid caused by initial overcurrent or overvoltage, when monitoring the peak value. Delay time is 0 to 30 sec. and it starts to monitor the peak value after set time.

When M M keys are pressed at HPFL and LPFL mode of parameter 0, it will be initialized.

Monitoring function is not indicated when setting the PEYŁ of parameter 2 as "0"

Current output(DC4-20mA) Scale adjustment function [PA 2: F5-H/F5-L mode]

It sets current output for preset display value at the output current 4–20mA DC. It sets display value for 4mA in F5L and 20mA in F5H and set range between F5-H and F5-L should be 10% F.S. (When it set as under 10% F.S., it changed as over 10% F.S. and 4mA at under F5-L and 20mA at over F5-H.



Measuring AC frequency function [PA 1: 8/ 5/ mode]

easuring range imal point 0.000 0.00

	①Me
	Deci
	Mea rang
	• 0. ·
isplay value	• 50 ±

0.3%F.S. ±2Digit 000 to 9999Hz: Display accuracy error within 1%F.S. ±3Digit ль н: 0.100 to 9.999 (Gradient adjustment of high value) nbE: 10-2, 10-1, 10 0, 10 1 (Index adjustment of 1 nb.H)

urement 0.100 to 0.10 to 0.1 to 1 to 99.99Hz 99.99Hz 999.9Hz

Error correction function [PA 1:InbH/InbL mode]

[PA 1-inb.H]inb.L mode]
It correct slapply value error of measured input.
InbL:±99 (Adjust deviation of low value)
InbH:5.000 to 0.100(Correct gradient(%) of high value)
Display value=(Measured value × inbH)+InbL
Ex) Low value correction
When there is an application where there is a residual
voltage of 1.2V, but a 0V display is desired, then it
is possible by adjusting the InbL parameter setting
to 12(offset correcting value or equal to 1.2V without
decimal) that the desired display value of 0 can be
achieved.

achieved.

Ex) High value correction

When there is an application where the high actual value of display is 501 and exceeds the 500V display range, then it is possible by adjusting the 1 n_bH parameter setting to 0.998(calculated by desired value of 500/actual value of 501), that the desired value can be achieved.

*The offset correction range of 1 n_bL is within -99 to 99 for D^0, D^1 digit regardless of decimal point.

Zero adjustment function

When zero point adjustment with front key and Hold terminal is finished normally, zero point of measuring terminal is displayed and the adjusted value is saved in table automatically. a Input I. .

ation	correction value	Front key	signal	
Des- cription	PR 1: Direct input correction value method at 1 nb. L mode	Press both	Short-circuit external Hold terminal no.11, 12 over min.50m. **It is enable to use in option mode.	
※Refer to description [■ Error correction function],				

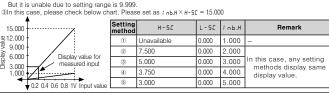
[■ Error indication function] and [■ Parameter 2] for function and error.

■ Gradient correction function [PA 1:1 nb # mode]

It corrects a gradient of prescale value and display value. (Figure 1)Display value Y can be adjusted as $\alpha \in A$ times against X input value by correction function $\{i-b, i\}$ and used as correction function of \max , display value $\{i-b, i\}$. Adjustment range is 0.100 to 5.000 and multiply current gradient by the

Ex) To display "3.000" in DC 200mV input for measured input specification as 0 to 1V, ①Select 0-1VDC for measured input in Parameter 1 2Standard specification in input: 0-1VDC and 1.000 therefore it has to be 15.000(H-5E)

for 1VDC(Input) in order to display 3.000 for 200mVDC(input).



■ Preset output mode [PA 2: oU ! Ł / oU ? Ł mode]

Mode	Output operation	Operation
oFF	OUT1 output No output	No output
ні	OUT1.H Hysterisis	Period ON: Display value≥OUT1.H Period OFF: Display value≤OUT1.H-Hys
Lo	OUT1.L OUT1 output	Period ON: Display value≤OUT1.L Period OFF: Display value≥OUT1.L+HYS
HL	OUT1.H OUT1.L OUT1 output	Period ON: Display value≤OUT1.L or Display value≥OUT1.H Period OFF: Display value≥OUT.L+Hys or Display value≤OUT.H+Hys
HL - G	OUT1.H OUT1.L OUT1 output	Period ON: OUT1.L≤Display value≤OUT1.H+Hys Period OFF: Display value≤OUT.L+Hys or Display value≥OUT.H+Hys

- Set output mode separately for each OUT1/OUT2.
- Set output mode separately in reach Out 100 12.
 Out1/OUT2 are obstacted individually depending on output operation mode.
 Setting value mode of parameter group 0 is displayed depending on output operation mode.
 Set Outputs when the period both OUT/OUT2 are off, (NPN/PNP Open collector output type)

Parameter nese are displayed in 5ERL only and se ax/min. display value(-1999 to 9999). PR I nb.E. Input Out2 type H95.1 Out1 hystere elect output mode of OU FF/HI/Lo/HL/HL-G /ithin 1 to F.S. 10%(Variable depending H45.2 Out2 Set startup compensation tim PEUL Peak tim Set monitoring delay time for peak value(sec) | Set range: 00 to 30 sec EoLr Cold elect color nable zero adjustment key Eul n Event input อย เม OUT1 high preset Set value of OUT1 High-limit output or MT4N-DV/DA Type, set range UI.H/oU2.H and oUI.L/oU2.L is within 905T C 110%. key is pressed, it will be returned to initial status.

Parameter setting

IN FOR SMODE key for 2 sec. in RUN mode, [PA] [(Parameter 1) is displayed. When press MODE key for 4 sec. in RUN mode, [PA] is displayed after [PA]]. When press MODE key is pressed continually, it stops displaying at [PA]. RUN

* It is advanced to current display parameter releasing MODE key at [PRI] or [PR2].

** Press MODE key ** Press MODE key for 3 sec., it is returned to RUN at any position.

** If any key is not touched for 60 sec. in each parameter, it will return to RUN mode. * After return to RUN mode, press MODE key within 2 sec., it will return to previous parameter. (Refer to the below descriptions for set parameter.) PR2

Change the parameter setting value

1.Advance to the parameter to be changed when press MODE key continuously in RUN mode and release MODE key at the parameter. (Refer to "
Parameter settion")

Parameter setting")

2.When press MODE key in each parameter, the initial mode of the parameter is displayed. (Refer to the description of each parameter.)

3. When press one of (), (), () keys in display mode.

Setting value | Saved setting value | Press one | Pres 4.Change the set value by ⋈ or ⋈ key when setting

value is flashed. Ex) Change AC type measured input from 250V to 125V. Mode Setting value Setting Value MODE 1250.

di 5P

5. When press MODE key to complete the change and it is advanced to the next mode after flashes 2 times.
6. When press MODE key for 3 sec. after change, it returns to RUN mode.

Parameter 0 ►RUN

MODE Set High-limit preset value of oul I £.

(It is not displayed when oul I £ mode value of PA2 is of F.)

**Change the value by **M Reys.

Set Low-limit preset value of oul I £.

(It is not displayed when oul I £ mode value of PA2 is of F.)

**Change the value by **M Reys. Set High-limit preset value of out £ .

(It is not displayed when out £ mode value of PA2 is of £ .)

**Change the value by 🐼 🔀 keys.

Set Low-limit preset value of old?£ (It is not displayed when old?£ mode value of PA2 is off.)

*Change the value by 【 > A keys. It displays High peak value in RUN mode and 🐼 🖾 keys are pressed, it is reset.

It displays Low peak value in RUN mode and WMA keys are pressed, it is reset.

Measured input range

____ Ŀ monitoring delay time in PA2 is '00', н.РЕĿ and are not displayed. (Measured input specification for each model)

MT4N-DV 50V ₹10V ₹5V ₹1V ₹250 mV ₹50 mV ₹50V

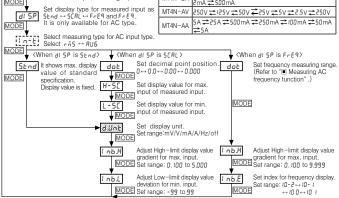
Parameter 1

PR I Select measured input specification. (Refer to "Inspecification of measured input and range".) measured input and recognized input as display type for measured input as Stad → StRL → Fcf9 and Fcf9.

MODE

It is only available for AC type.

MT4N-DA 500 mA ≠200 mA ≠50 mA ≠4-20 mA ≠5 mA ≠ 200 mA



Enable zero adjustment by front key operation to select 9E5. Press both C+& keys simul—lambda second in nb1 automatically. Parameter 2 Select between hold input by terminal 11, 12 and zero set by external signal. MODE **F5-H** MODE **When input range and prescale mode are changed, the set value of 55-H and 55-t is change automatically as max/min. value of input range. Select Preset output mode of OUT1 as of F → H → Lo→ H L → H - G MODE But, it is only displayed in OUT1 output included model. Select Preset output mode of OUT2 as of F → HI → Lo → HL → HL - G MODE But, it is only displayed in OUT2 output included model. Select Preset hysteresis of OUT1 within 10% of F.S. But, it is not displayed when out it Set Low-limit value, 4mADC output position of PV output. H95. MODE mode is off. MODE Select Preset hysteresis of OUT2 within 10% of F.S. But, it is not displayed when out2.t mode is ofF. Set address of RS485 communication output within 01 to 99. MODE Set startup compensation time. Set range is 0.0 to 99.9 sec. SERE Set baud rate of RS485 communication output within 9600 ↔ 4800 ↔ 2400 ↔ 1200. MODE PEY.Ł Set monitoring delay time within 00 to 30 sec. Set parity bit. Set range: None / Even / Odd MODE d/ 5.E Execute variable set display period by 0.1 MODE Execute variable set displesec, within 0.1 to 5.0 sec. MODE Set stop bit. Set range: 1/2 Select color with 5 modes. rEd++ Grn++ YEL++ r-C++ Grn • rEd, Grn, YEL: Display with 1 color. • r-G, Grn- Color is changed when error is occurred. Ex) r-G: Red is standard and green when error is occurred. MODE Set range: 5 to 99 Enable Lock function with 4 mode, oFF ↔ LoC 1 ↔ LoC2 ↔ LoC3 ↔ oFf ※ Color is changed only when error in □ Error oFF Disable Lock function Loc2 Lock parameter 1,2 LoC I Lock parameter 1 LoC3 Lock parameter 0,1,2

Caution for using

. Allowable installation environment

(ii) If shall be used indoor (iii) Alltitude Max. 2,000m (iii) Pollution Degree 3 (iii) Installation Category II

Use compression terminal(Mis, Max. 6,0mm) to connect AC power.

S. Separate from high—tension line, power line to avoid inductive noise.

Max.

I. Install power switch or circuit breaker to an / of the power at once.

The switch or circuit breaker should be installed nearby users for safety.

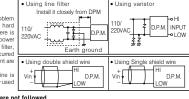
A wold to use the unit nearby machinery with high frequency noise, such as high frequency welder / sewing machine controller etc.

display function" is occurred excluding 'over'.

. "HHHH" or "LLLL" is displayed, off the power and check

lines.

S. Noise inflowing from power line can cause serious problem for D.P. M. (Digital Panel Meter) of AC power. It is hard to install protection circuit in the small unit even there is condenser to avoid noise between lines at primary of power transformer. Use noise absorber circuit such as line filter, varistor at external lines when abnormal voltage is occurred by power relay, magnet switch, high frequency equipment are operated in same lines. perated in same lines.



$\ensuremath{\mathrm{\#It}}$ may cause malfunction if above instructions are not followed Main products

mperature/municary ...
ritching power supplies
combine motors/drivers/motion controllers notors/drivers/.... ork devices king system(CO₂, Nd:YAG)

The proposal of a product improvement and development :product@autonics.com EP-KE-77-0012G