PMED

PMED-H1-1
VER1.0(A-0)

PMED-H1-1-Series
User's Manual

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* Analog signal is only used for the HIWIN Positioning Measurement System

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inch: 0.000001, 0.00001, 0.0001, 0.001

(7) Resolution setting (unit: μm): 1, 2, 5, 10

(8) Preset function: 8 sets

(9) Relay output function: 4 sets

(10) Current value read (displayed) will be automatically saved during a temporary power failure

2. Specifications:

◎ Display: LED 8 digit display

◎ Input power: 5VDC±5%/1A

◎ Input signal: SIN/COS 1Vp-p(analog), 5V RS-422/TTL(digital)

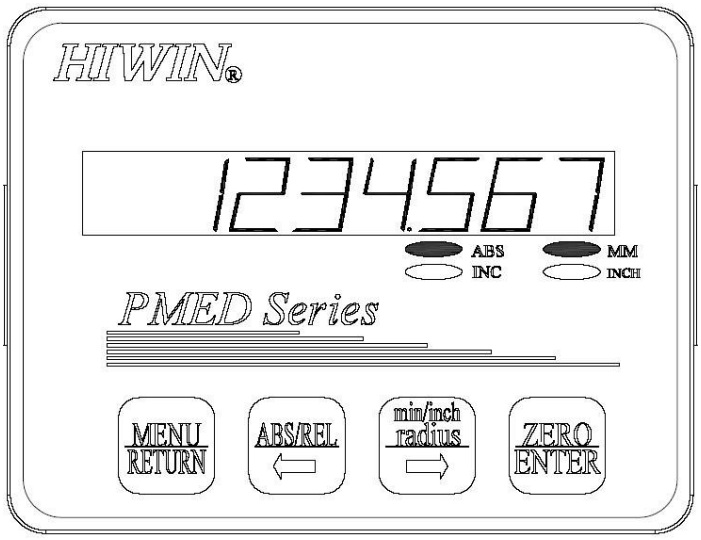
◎ Relay contact rating: 24VDC/2A

◎ Relay frequency: 2 seconds

◎ Operating temperature range: 0℃ ~ +50℃

◎ Storage temperature range: -5℃ ~ +65℃

3. Panel Description:



ABS: ABS Mode
INC: REL Mode
MM: Unit: mm
INCH: Unit: inch

4. Normal Mode Description:

Button representation:

MENU RETURN ：Menu

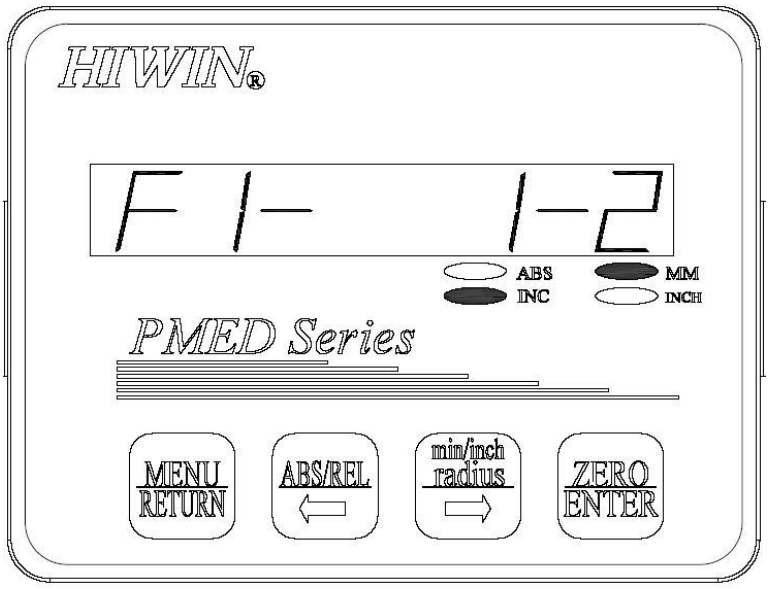
ABS/REL ：Switch between ABS/REL mode

mm/inch radius ：Switch between units (mm/inch)

ZERO ENTER ：Set zero mark

5. Function Mode Description:

When the display is set on normal mode, press the MENU button to enter into the function mode



Button representation:

MENU RETURN : Return back to normal mode/back one page

ABS/REL : Switch between functions

F1-1-2>F2-DIR>F3-ADC>F4-DOT>F5-DPI>F6-PCALL>
F7-PSET>F8-IO.USE>F9-IO.SET> F1-1-2

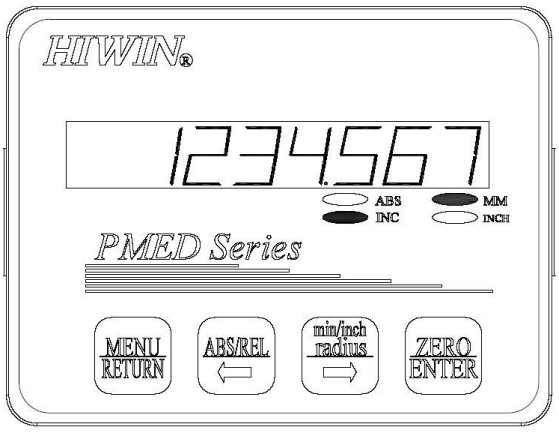
mm/inch radius : Switch between functions

F1-1-2> F9-IO.SET> F8-IO.USE> >F7-PSET
>F6-PCALL>F5-DPI >F4-DOT>F3-ADC>F2-DIR> F1-1-2

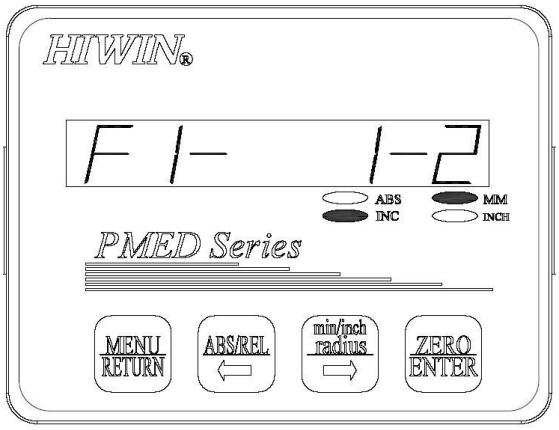
ZERO ENTER : Confirmation button

6. Auto-Center (1/2) Function:

Function: To set the auto-center (1/2) value when needed
Caution: Can only be used when the display unit is set on INC mode



Step 1. If not in INC mode, press ABS/REL to switch into INC mode

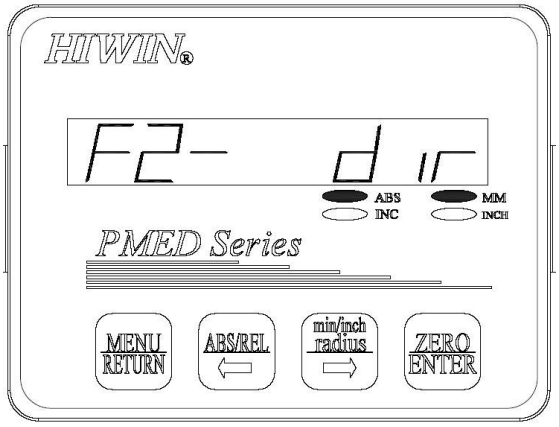


Step 2. Press MENU RETURN once, and then press ABS/REL or mm/inch radius until it displays F1-1-2

Press ZERO ENTER to find the midpoint

7. Count Direction Setting (DIR):

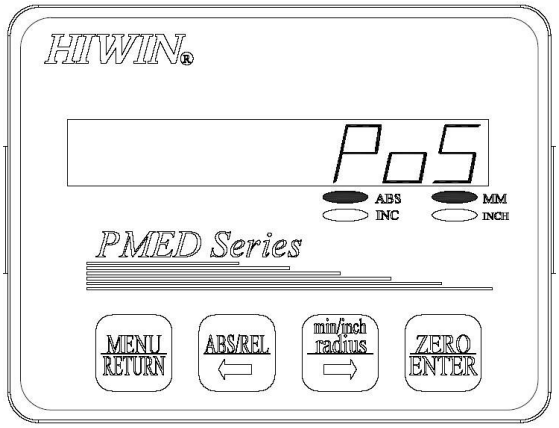
Function: To set the direction (increase or decrease)
Note: Can be used with the display unit set on ABS mode or INC mode



Step 1. Press MENU RETURN once, and then

press ABS/REL or mm/inch radius

until it displays F2-DIR



Step 2. Press ZERO ENTER to enter setting,

then press ABS/REL or mm/inch radius

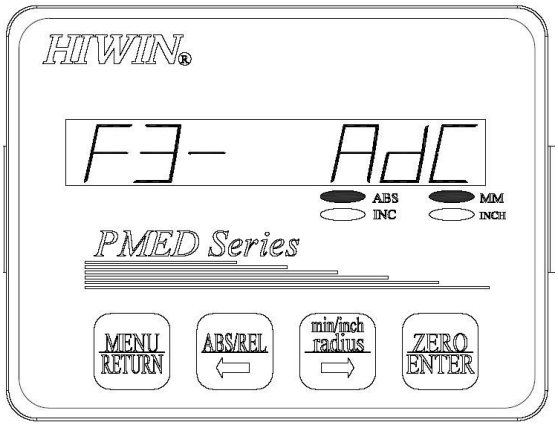
to choose the counting direction

(positive or negative)

Press ZERO ENTER to confirm

8. Input Signal Setting (ADC):

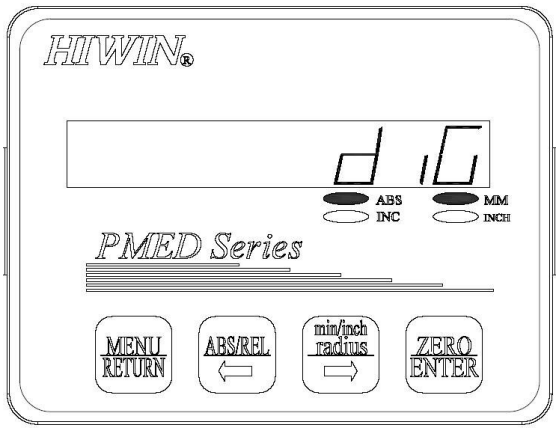
Function: Choose the input signal (analog or digital)
Note: Can be used with the display unit set on ABS mode or INC mode



Step 1. Press MENU RETURN once, then

press ABS/REL or mm/inch radius

until it displays F3-ADC



Step 2. Press ZERO ENTER to enter setting,

then press ABS/REL or mm/inch radius

to choose DIG (digital signal) or

ANA (analog signal)

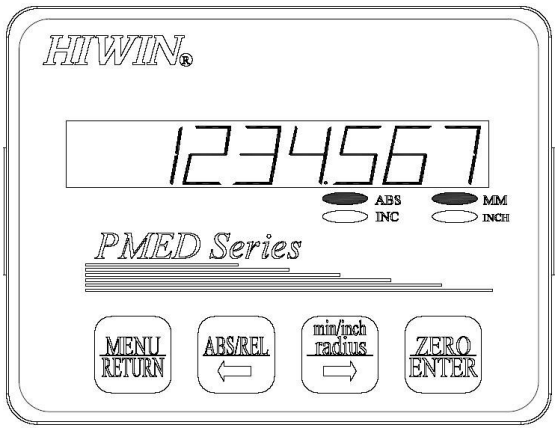
Press ZERO ENTER to confirm

9. Decimal Point Setting (DOT):

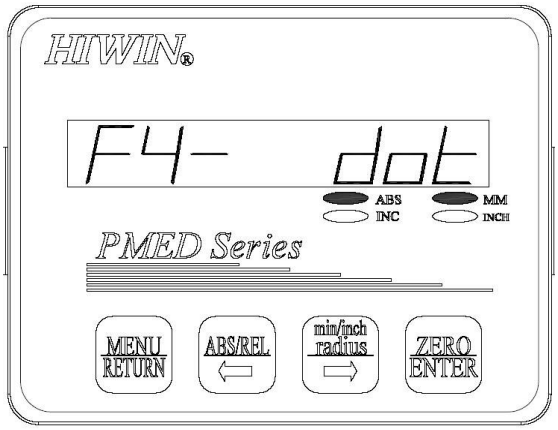
Function: To set the decimal point according to the user's requirement

1. For mm, choices are 0.001, 0.01, 0.1, 1
2. For inch, choices are 0.000001, 0.00001, 0.0001, 0.001

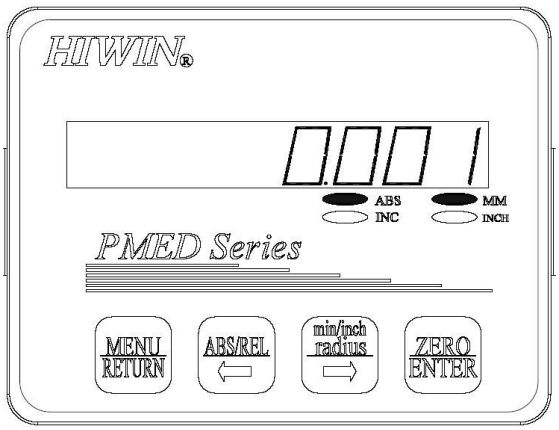
Note: Can be used with the display unit set on ABS mode or INC mode



Step 1. Press mm/inch radius to choose the desired unit



Step 2. Press MENU RETURN once, and then press ABS/REL or mm/inch radius until it displays F4-DOT



Step 3. Press ZERO ENTER to enter setting, then

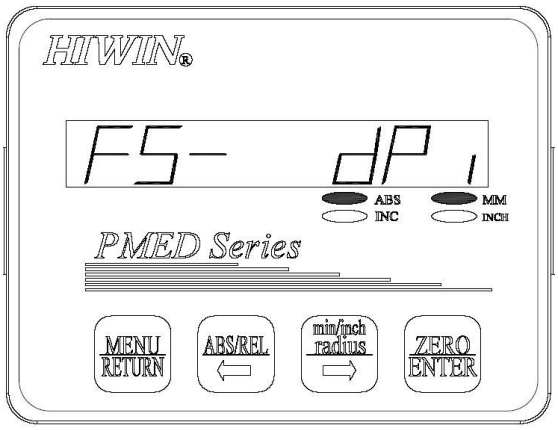
press ABS/REL or mm/inch radius to choose

the placement of the decimal point

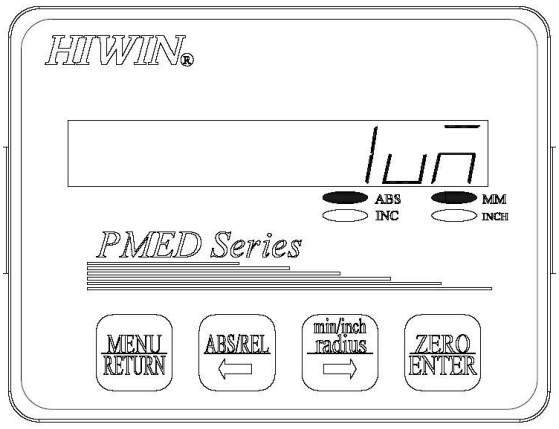
Press ZERO ENTER to confirm

10. Resolution Setting (DPI):

Function: To set the resolution according to user's requirement
Choices are 1μm, 2μm, 5μm, 10μm
Note: Can be used with the display unit set on ABS mode or INC mode



Step 1. Press MENU RETURN once, and then press ABS/REL or mm/inch radius until it displays F5-DPI

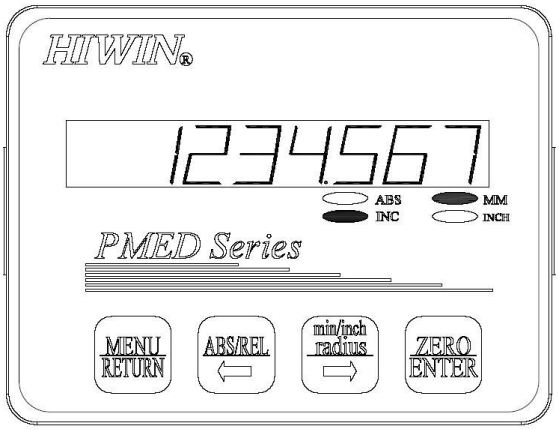


Step 2. Press ZERO ENTER to enter setting, then press ABS/REL or mm/inch radius to choose the desired resolution

Press ZERO ENTER to confirm

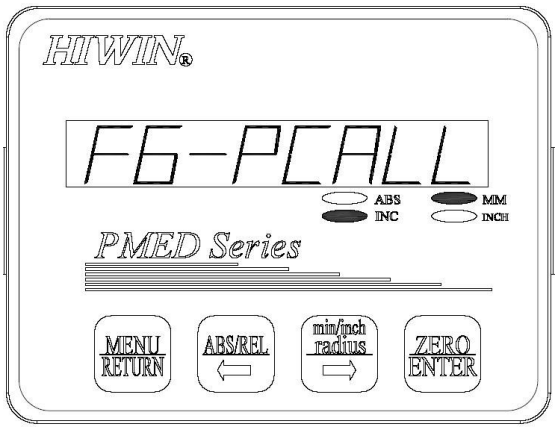
11. Pre-Call (PCALL):

Function: This function can recall the preset parameter
Caution: Can only be used when the display unit is set on INC mode



Step 1. If not in INC mode, press ABS/REL

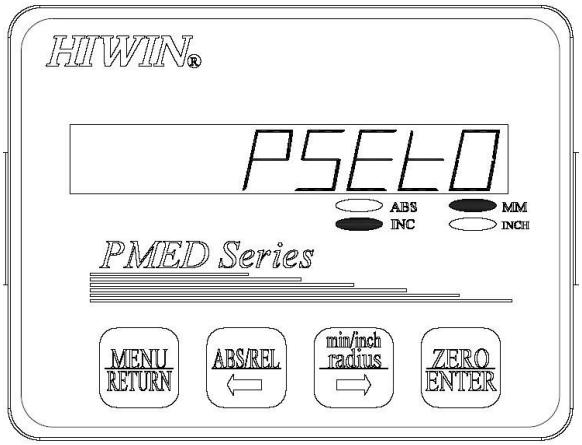
to switch into INC mode



Step 2. Press MENU RETURN once, and then press

ABS/REL or mm/inch radius until it

displays F6-PCALL



Step 3. Press ZERO ENTER to enter setting, and

then press ABS/REL ⇦ or mm/inch radius ⇨

to choose which set of number presets you require

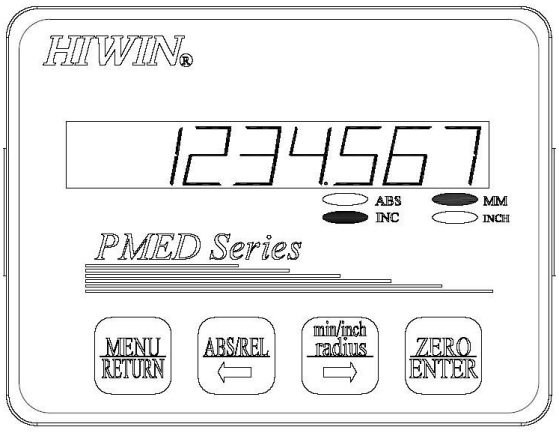
Press ZERO ENTER to confirm

12. Preset Setting (PSET):

Function: Preset number setup

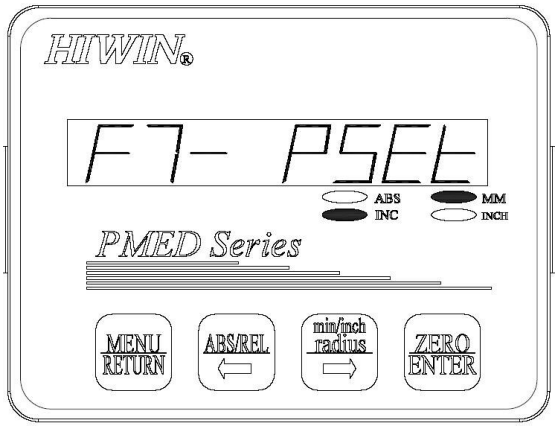
The preset function offers 8 sets

Caution: Can only be used when the display unit is set on INC mode



Step 1. If not in INC mode, press ABS/REL

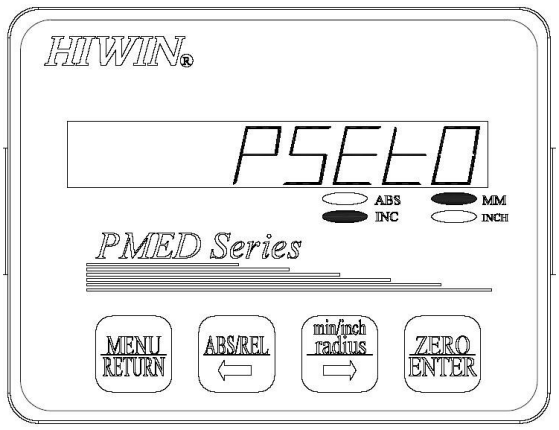
to switch into INC mode



Step 2. Press MENU RETURN once, and then

press ABS/REL or mm/inch radius

until it displays F7-PSET

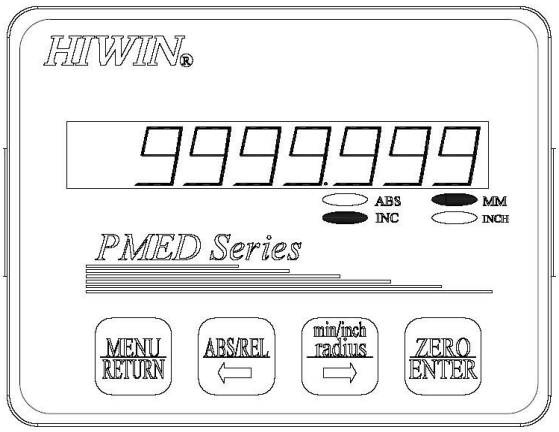


Step 3. Press ZERO ENTER to enter setting, and

then press ABS/REL or mm/inch radius

to choose which set of number presets

you require



Step 4. Press ZERO ENTER to enter setting, and

then press ABS/REL to change the

blinking digit

Press ABS/REL to change the value, and

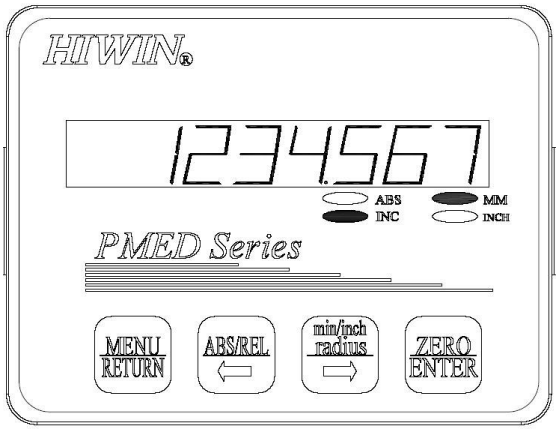
press mm/inch radius to change to the next digit

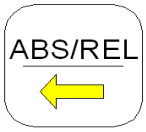
Press ZERO ENTER to confirm

13. Relay Enable/Disable Setting (IO.USE):

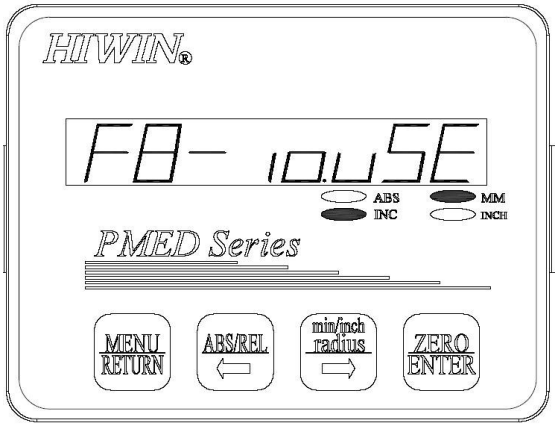
Function: Relay enable/disable setting

Caution: Can only be used when the display unit is set on INC mode



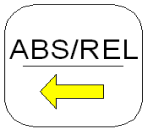
Step 1. If not in INC mode, press 

to switch into INC mode



Step 2. Press 

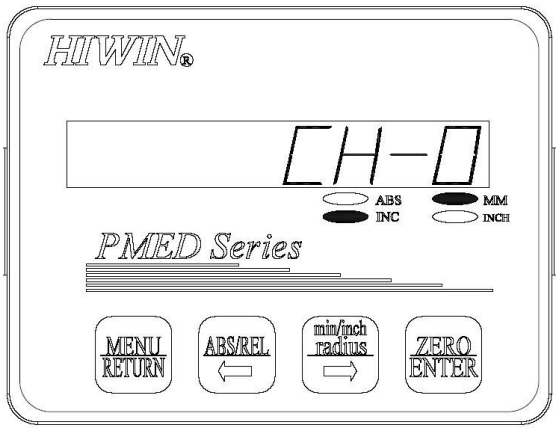
once, then press



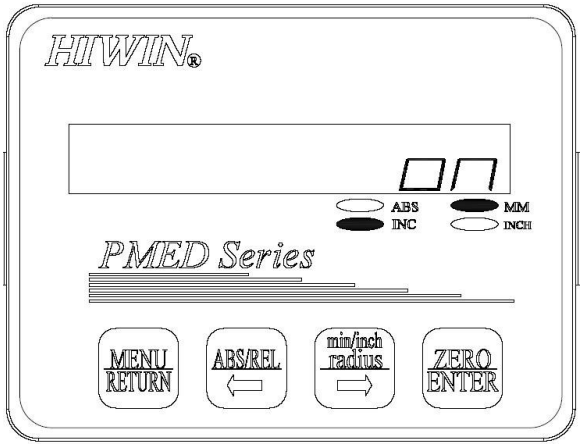
or 

until it

displays F8-IO.USE



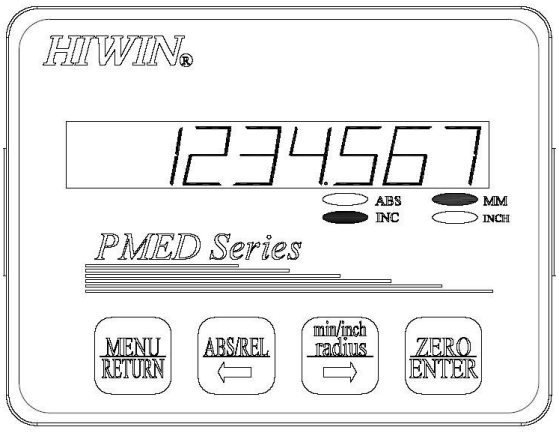
Step 3. Press ZERO ENTER to enter setting, and then press ABS/REL or mm/inch radius to choose which set of relay settings you require



Step 4. Press ZERO ENTER to enter setting, and then press ABS/REL or mm/inch radius to setup the relay enable or disable function

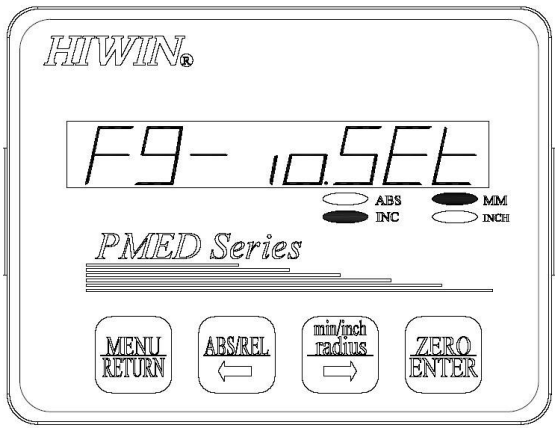
14. Relay Output Position Setting (IO.SET):

Function: Relay output position setup
Relay output: 4 sets
Caution: Can only be used when the display unit is set on INC mode



Step 1. If not in INC mode, press ABS/REL

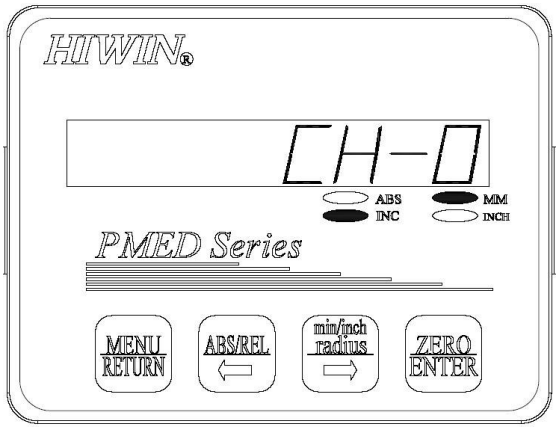
to switch into INC mode



Step 2. Press MENU RETURN once, then press

ABS/REL or mm/inch radius until it

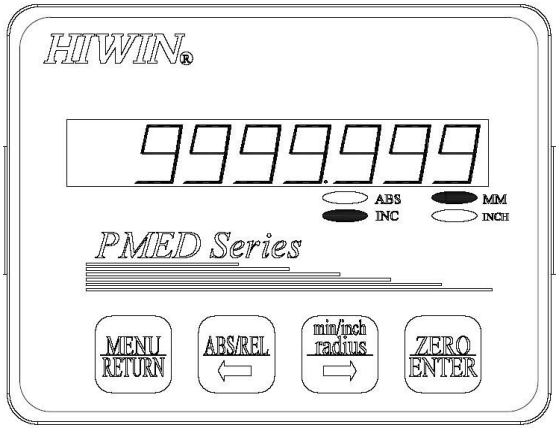
displays F9-IO.SET



Step 3. Press ZERO ENTER to enter setting,

then press ABS/REL or mm/inch radius to

choose the position setting (CH-0~CH-3)



Step 4. Press ZERO ENTER to enter setting

Press ABS/REL to change the blinking

number, and then press ABS/REL to

change the value

Press mm/inch radius to change to the next

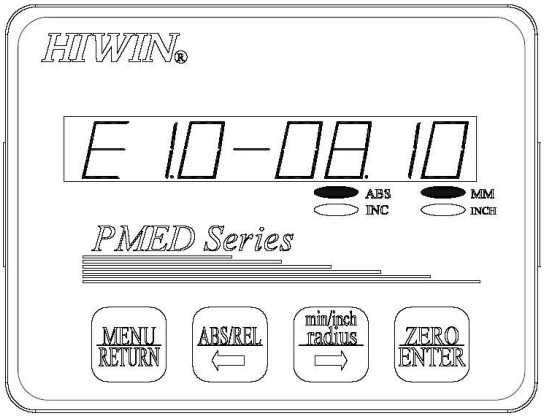
number

When completely finished setting the

numbers, press ZERO ENTER to confirm

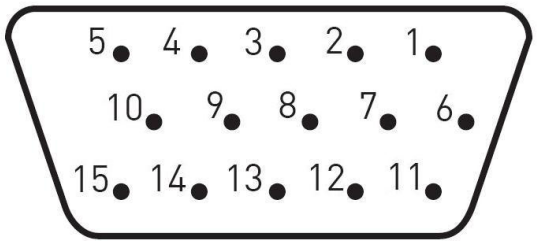
15. Software Version:

Function: The systems software version



When powered on, the panel will display the current software version for about 3 seconds

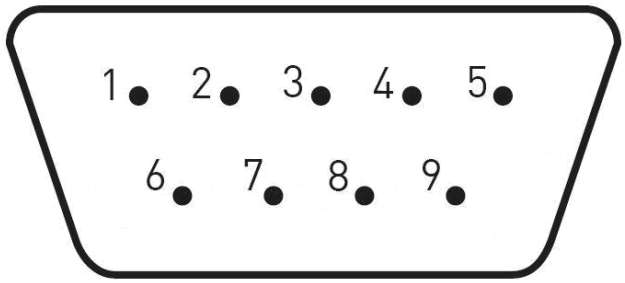
16. Description of Input Signal:



D-sub VGA 15 Pin Female

Pin	Signal	Pin	Signal	Pin	Signal
1	+5V	6	FG	11	A+(Analog)
2	GND	7	Z+	12	A-(Analog)
3	A+(Digital)	8	Z-	13	B+(Analog)
4	B+(Digital)	9	A-(Digital)	14	B-(Analog)
5	NC	10	B-(Digital)	15	NC

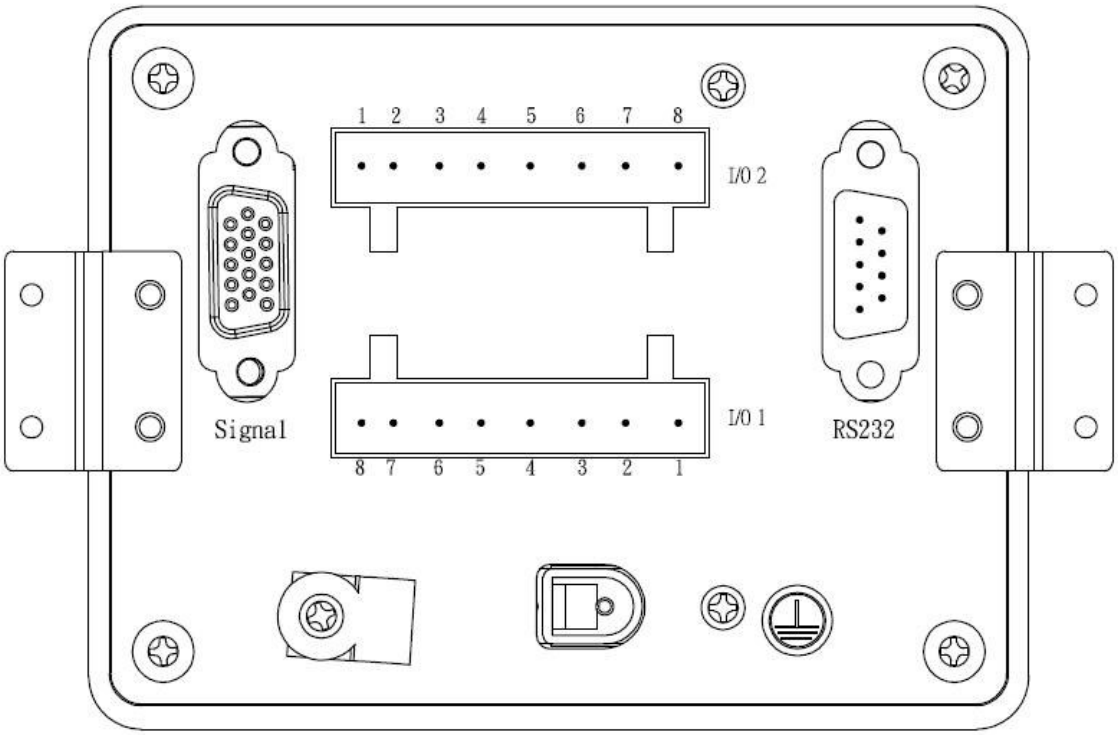
17. Description of RS-232 Signal:



D-sub 9 Pin male

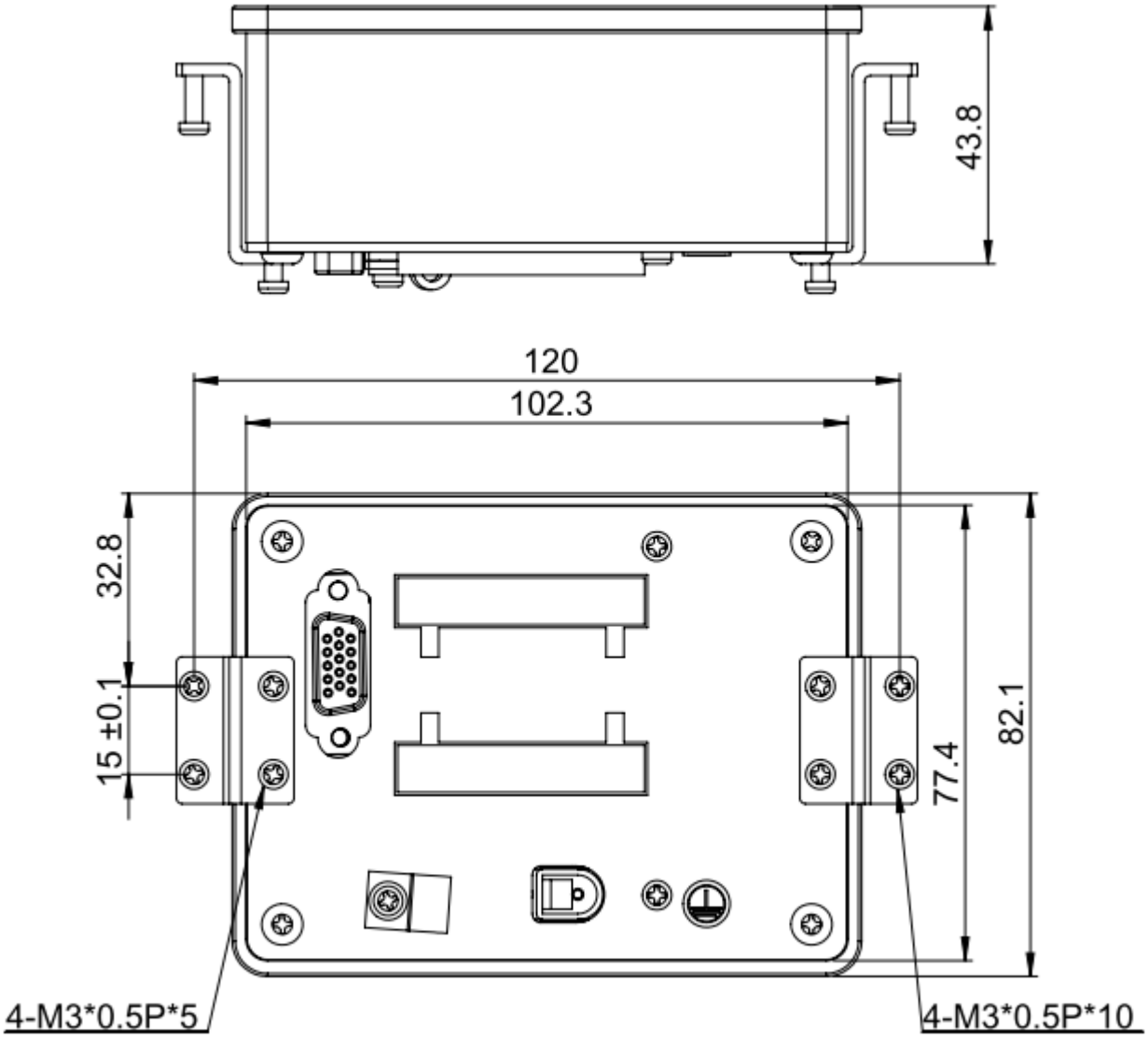
Pin	Signal	Pin	Signal
1	NC	6	NC
2	TXD	7	NC
3	RXD	8	NC
4	NC	9	NC
5	GND		

18. Description of Output Signal:



I/O 1		I/O 2	
Pin	Designation	Pin	Designation
1	NC	1	NC
2		2	
3	NC	3	NC
4		4	
5	Relay 0(CH-0)	5	Relay 2(CH-2)
6		6	
7	Relay 1(CH-1)	7	Relay 3(CH-3)
8		8	

19. Dimensions:



Attention!Please use correct size of screws while assembly

20. Parameter Defaults:

Function	Description	Default
F2-DIR	Counting Direction	POS(positive)
F3-ADC	Input Signal	ANA(analog signal)
F4-DOT	Decimal Point	mm: 0.001 inch: 0.000001
F5-DPI	Resolution	1μm
F6-PCALL	Pre-Call	PSET 0
F7-PSET	Preset	PSET 0~PSET 7=0
F8-IO.USE	Relay Enable/Disable	CH-0~CH-3: OFF
F9-IO.SET	Relay Output	CH-0~CH-3=0

Name	LED Display	Name	LED Display	Name	LED Display
I		J		K	
Name	LED Display	Name	LED Display	Name	LED Display
L		M		N	
Name	LED Display	Name	LED Display	Name	LED Display
O		P		Q	
Name	LED Display	Name	LED Display	Name	LED Display
R		S		T	
Name	LED Display	Name	LED Display	Name	LED Display
U		V		W	
Name	LED Display	Name	LED Display	Name	LED Display
X		Y		Z	

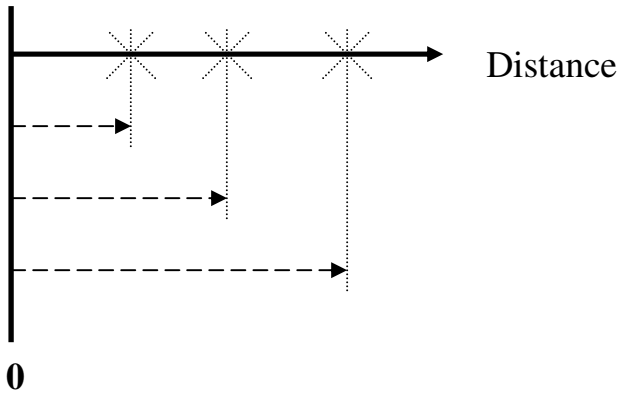
21. Appendix:

Panel display (number and letter (function) representation):

Name	LED Display	Name	LED Display	Name	LED Display
0		1		2	
Name	LED Display	Name	LED Display	Name	LED Display
3		4		5	
Name	LED Display	Name	LED Display	Name	LED Display
6		7		8	
Name	LED Display	Name	LED Display	Name	LED Display
9		A		B	
Name	LED Display	Name	LED Display	Name	LED Display
C		D		E	
Name	LED Display	Name	LED Display	Name	LED Display
F		G		H	

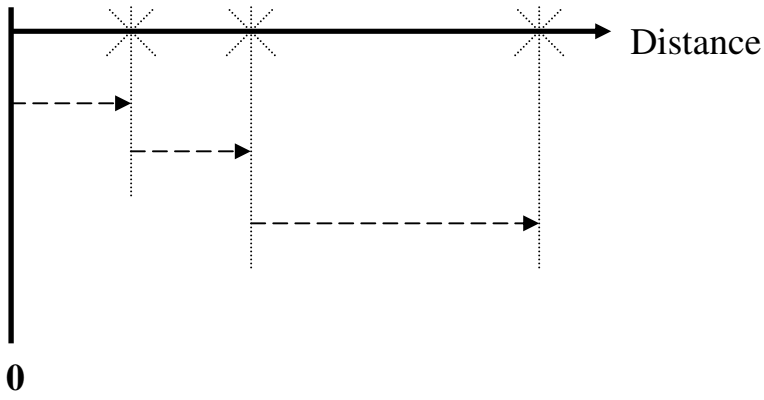
(2). Technical description:

(a). Absolute mode:



Has the same origin, the position of the origin can not be changed

(b). Relative mode:



The position of the origin can be changed based on your demand