

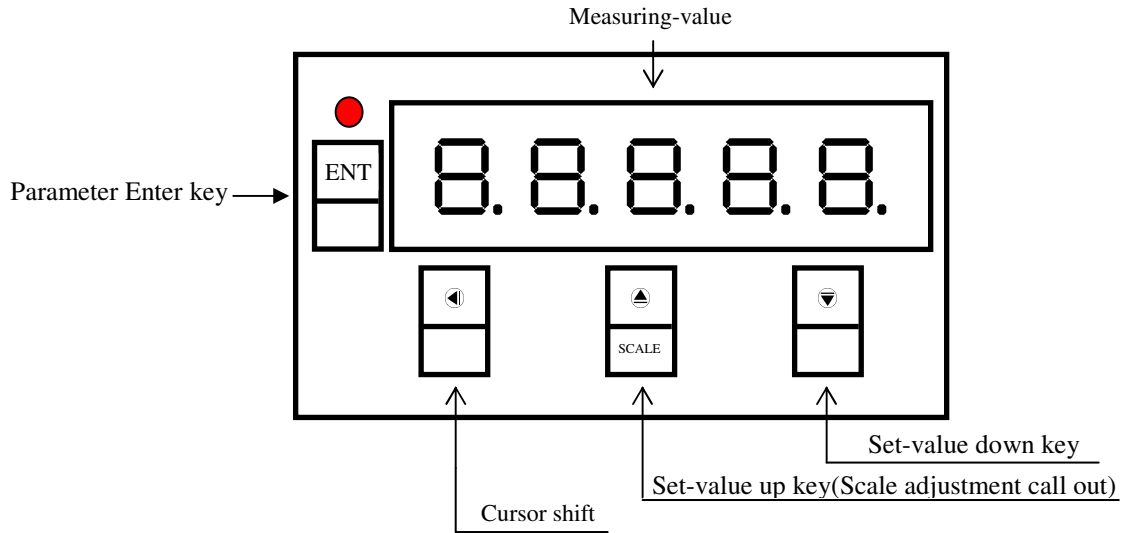
# AXE MICROPROCESS RPM/LINE-SPEED METER (24x48mm)

MRS series

## FEATURES

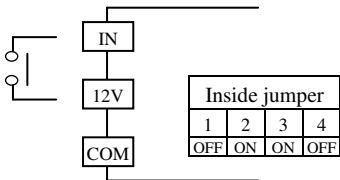
- ⊙ Accept more type sensor(MOS/TTL/NPN/PNP), finish RPM/LINE-SPEED measuring
- ⊙ Accuracy 0.03% F.S.
- ⊙ Accepts input rates up to (0~50KHz), Readout range (0~99999)
- ⊙ Decimal point can be modified
- ⊙ PRM/LINE-SPEED unit can be modified
- ⊙ Input pulse of revolution can be modified (1~99999)
- ⊙ Diameter(LINE-SPEED)/scale(RPM) can be modified (0.0001~9.9999)
- ⊙ Display average times can be modified (1~99)
- ⊙ EEPROM saving, data safekeeping about 10 years

## Name of Parts

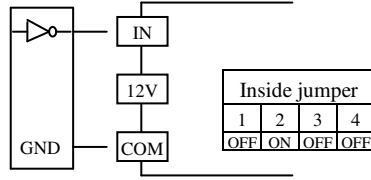


## Connect Diagram

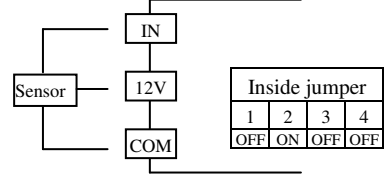
### ⊙ Contact input(PNP)



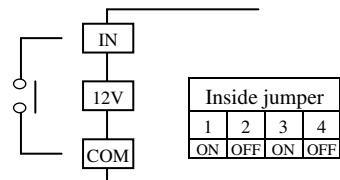
### ⊙ CMOS input(12V or 15V)



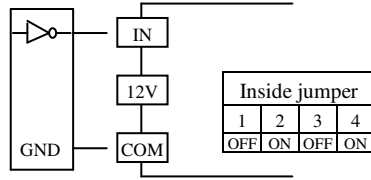
### ⊙ Sensor input(PNP 12V)



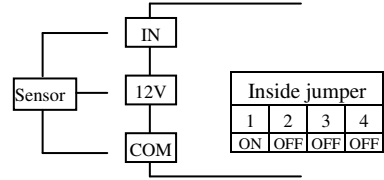
### ⊙ Contact input(NPN)



### ⊙ TTL input(5V)



### ⊙ Sensor input(NPN 12V)



## Input Function Jumper Description

<table border="1" style="border-collapse: collapse; width: 20px; height: 10px;"> <tr><td style="width: 5px; height: 5px;"></td><td style="width: 5px; height: 5px;"></td></tr> </table>			4	Position 4	ON: TTL	OFF: CMOS
<table border="1" style="border-collapse: collapse; width: 20px; height: 10px;"> <tr><td style="width: 5px; height: 5px;"></td><td style="width: 5px; height: 5px;"></td></tr> </table>			3	Position 3	ON: 0~50Hz	OFF: 0~50KHz
<table border="1" style="border-collapse: collapse; width: 20px; height: 10px;"> <tr><td style="width: 5px; height: 5px;"></td><td style="width: 5px; height: 5px;"></td></tr> </table>			2	Position 2	ON: PNP	
<table border="1" style="border-collapse: collapse; width: 20px; height: 10px;"> <tr><td style="width: 5px; height: 5px;"></td><td style="width: 5px; height: 5px;"></td></tr> </table>			1	Position 1	ON: NPN	

Key Introduce		Operation Manual	
Ⓜ Key Function		1. In normal display, The key function is call out setting group 2. In parameter setting page, The key function is data Enter , and goto next page	
Ⓜ Key Function		1. Into parameter setting page, the parameter mark&data is alternate display, If need modify data can press shift key into setting procedure, The display is lock parameter data, this time must let off key about 0.2 sec, press again, the cursor(twinkle express)is cycle moving left. (Key Response about 0.2 sec)	
▲ Key Function		1. In normal display, The key function is call out adjustment display scale page 2. Into parameter setting page, the parameter mark&data is alternate display, If need modify data can press up key into setting procedure, The display is lock parameter data, this time must let off key about 0.2 sec, press again, the parameter data will increment. (Key Response about 0.2 sec)	
▼ Key Function		1 Into parameter setting page, the parameter mark&data is alternate display, If need modify data can press down key into setting procedure, The display is lock parameter data, this time must let off key about 0.2 sec, press again the parameter data will decrement. (Key Response about 0.2 sec)	
▲&▼ Key Function		In setting group or setting page press ▲&▼ key return normal display, but if in setting page the modify data will be lost	
No Key in anything		In setting group or setting page no key in anything about 2 minutes, return normal display	
Step	Parameter Mark Description	Parameter Mark	Operation Manual
1	Normal Display	1 2 3 4 5	Press Ⓜ key about 3 sec into DP setting page
2	DP(Decimal Point setting page)Default=0	┐ P	1. Decide decimal point position with▲&▼key(0~4)
		□	1.2. Press Ⓜ key enter data and into TYPE setting page
3	TYPE(Input Type setting page)Default=RPM	┐ Y P E	1. Decide Input Type setting page with▲&▼key (RPM/LINE)
		┐ P ̄	2. PressⓂkey enter data and into UNIT setting page, otherwise into PPR setting page
4	UNIT(LINE-SPEED Unit setting page)Default=METER	┐ n 1 E	1. Decide pulse per revolution with ◀&▲&▼key (1~99999)
		̄ E E E E	2. Press Ⓜ key enter data and into TBASE setting page
5	PPR(Pulse Per Revolution setting page)Default=1	┐ P P E	1. Decide sampling time base with &▲&▼key (0.1~99.9 sec)
		□ □ □ □	2. Press Ⓜ key enter data and into AVG setting page
6	TBASE (Input sampling Time Base setting page)Default=0.1	┐ T B A S E	1. Decide display average times with &▲&▼key (1~99)
		□ □ □ □	2. Press Ⓜ key enter data and return normal display
7	AVG (Display Average times setting page)Default=1	┐ A V G	1. Decide display average times with ◀&▲&▼key (1~99)
		□ □ □ □	2. Press Ⓜ key enter data and return normal display
Step	Parameter Mark Description	Parameter Mark	Operation Manual
8	Normal Display	1 2 3 4 5	Press Ⓜ key, into SCALE setting page
8-1	SCALE (Display Scale setting page)Default=1	S C A L E	1. Decide scale with ◀&▲&▼key (0.0001~9.9999)
		1.0000	2. Press Ⓜ key enter data and return normal display RPM(scale = 0.0001~9.9999), LINE-SPEED(rotation diameter = 0.0001~9.9999M)
Appendix	Error Mark Description	Parameter Mark	Analyze & Description
1	Input over error detect	┐ O F L	Input signal over range (0~50KHz)
2	Display over error detect	┐ O F L	Input signal over display range (99999)
3	EEPROM error detect	E - 00	1. External interference when EEPROM read/write 2. EEPROM write over 100 million times(guarantee 10 years) Please power reset, if still display E-00,doing following step:
		┐ O	
		Y E S	1.E-00 & No alternate display for inquire reset EEPROM 2. Decide Yes with▲or▼key, pressⓂkey return normal display 3. EEPROM was reset, Please follow step 1~8 set again