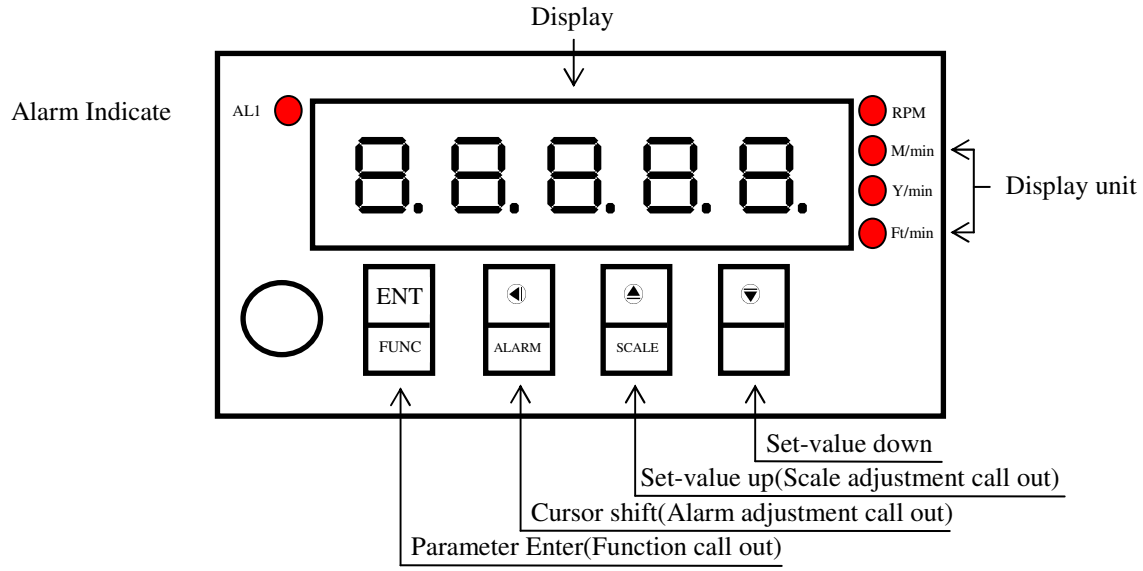
AXE MICROPROCESS RPM&LINE-SPEED CONTROLLER METER MMX-L

■ Features

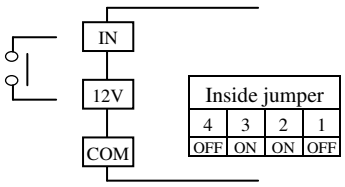
◎ Accept more type sensors(switch, encoder, proximity switch, …etc) finish RPM/LINE SPEED control
◎ Accuracy 0.03% F.S.
◎ Input range(0~30KHz),Readout range(0~99999)
◎ Decimal point can be modified
◎ LINE-SPEED unit can be modified
◎ Input pulse of revolution can be modified(1~99999)
◎ Display average times can be modified(1~99)
◎ Diameter(LINE-SPEED)/scale(RPM) can be modified (0.0001~9.9999)
◎ One alarm function
◎ Man-machine interface, easy to operate
◎ 0.8" highlight display
◎ EEPROM Saving, data safekeeping about 10 years
◎ Modified inside parameter, must have pass code

■ Name of Parts

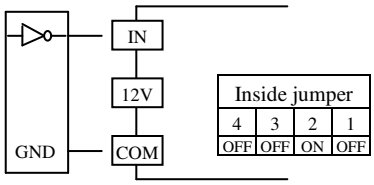


■ Connect Diagram

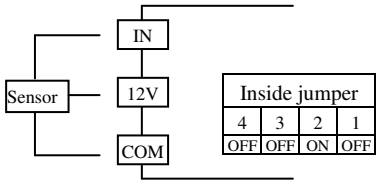
◎Contact input(PNP)



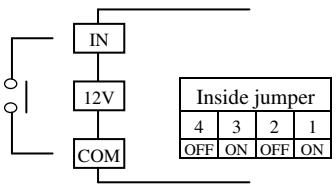
◎CMOS input(12V or 15V)



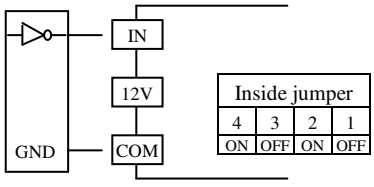
◎Sensor input(PNP 12V)



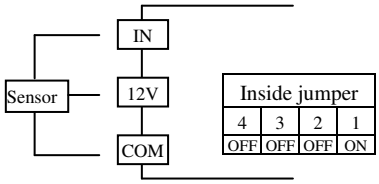
◎Contact input(NPN)



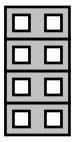
◎TTL input(5V)



◎Sensor input(NPN 12V)



■Input function jumper table



4 Position 4 ON: TTL OFF:CMOS
3 Position 3 ON: 0~50Hz OFF:0~10KHz
2 Position 2 ON: PNP
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.In normal display, The key function is call out alarm value setting page 2.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.In normal display, The key function is call out adjustment analog output ZERO&SPAN page 2.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, but if in Setting page the modify data will be lost

Step	Parameter Mark Description	Parameter Mark	Operation Manual
1	Normal display	12345	Press ㊎/FUNC key into P.COD setting page
2	P.COD(Pass code input page)	P.Cod 00000	1.Key in 5 digit pass code with ◀or▲or▼key 2.Press ㊎key, the pass code is right into Display Mode setting page, otherwise return normal display
3-1	DISPLAY MODE(Mode) Default=A	mode A	1. Decide display mode with ▲&▼key A B B-A (B/A)x100 (unit %) (B/A-1)x100 (unit %) (B/(A+B))x100 (unit %) (1-B/A)x100 (unit %) 2. Press ㊎key enter data and into DP setting page
3-2	DP(Decimal Point setting page)Default=0	dP 0	1. Decide decimal point position with ▲or▼ key (0 to 4) 2. Press ㊎key enter data and into TYPE setting page
3-3	TYPE(Display Type) Default=RPM	tYPE rPm	1.Decide display type with ▲or▼key(RPM/LINE) 2.Press ㊎key enter data, If select LINE into UNIT setting page, otherwise into PPR-1 setting page
3-4	UNIT(Line Speed Unit) Default=METER	Uni t mEtEr	1.Decide line speed unit with ▲or▼key(METER/FOOT/YARD) 2.Press ㊎key enter data and into PPR-1 setting page
3-5	PPR-1(Pulse Per Revolution) Default=1	PPr-A 0001	1.Decide pulse per revolution with ◀&▲&▼key(1~99999) 2.Press ㊎key enter data and into PPR-2 setting page
3-6	PPR-2(Pulse Per Revolution) Default=1	PPr-b 0001	1.Decide pulse per revolution with ◀&▲&▼key(1~99999) 2.Press ㊎key enter data and into TBASE setting page
3-7	TBASE (Sampling Time Base) Default=0.1	tbASE 000.1	1.Decide sampling time base with ◀&▲&▼key(0.1~99.9 sec) 2.Press ㊎key enter data and into AVG setting page
3-8	AVG (Display Average times) Default=1	AvG 0001	1.Decide display average times with ◀&▲&▼key(1~99) 2.Press ㊎key enter data and into ACT setting page

3-9	ACT(Alarm Active setting page) Default =HI	ACt Hi	1.Decide active with ▲or▼key(HI or LO) 2.Press FN key enter data and into HYS setting page
3-10	HYS(Alarm Hysteresis setting page) Default =0	HYS 00000	1.Decide Hysteresis with ◀or▲or▼key(0~999) 2.Press FN key enter data and into DEL setting page
3-11	DEL(Alarm Delay setting page) Default =0	dEL 0000.0	1.Decide delay with ◀or▲or▼key(0~99.9 sec) 2.Press FN key enter data and into CPDE setting page
3-12	CODE(Pass Code) Default=0	CodE 00000	1.Decide pass code with ◀& ▲& ▼key(0~99999) 2.Press FN key enter data and into LOCK setting page
3-13	LOCK(Panel Lock) Default=NO	LoCK no	1.Decide panel lock with ▲& ▼key(NO or YES) 2.Press FN key enter data and return normal display

Step	Parameter mark description	Parameter mark	Operation manual
6	Normal display	12345	Press ◀/ALARM key about 3 sec,into Alarm setting page
6-1	AL (Alarm value setting page) Value on EEPROM reset=0	AL 00000	1.Decide alarm value 1 with ◀or▲or▼key(0~99999) 2.Press FN key enter data and return normal display

Step	Parameter mark description	Parameter mark	Operation manual
7	Normal display	12345	Press ▲/SCALE key about 3 sec, into SCALE A setting page
7-1	SCALE A (Display Scale A setting page) Value on EEPROM reset=1	SCL-A 1.0000	1.Decide scale with ◀or▲or▼key(0.0001~9.9999) 2.Press FN key enter data and into SCALE B setting page RPM(scale = 0.0001~9.9999), LINE-SPEED(rotation diameter = 0.0001~9.9999M)
7-1	SCALE A (Display Scale A setting page) Value on EEPROM reset=1	SCL-b 1.0000	1.Decide scale with ◀or▲or▼key(0.0001~9.9999) 2.Press FN 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	Error Mark	Analyze & Description
1	Input over range error detect	inFL	Input signal over range(0~30KHz)
2	Display over range error detect	dnFL	Input signal out of display range(-19999~99999)
3	EEPROM error detect	E-00 no YES	1.External interference when EEPROM read/write 2.EEPROM write about 1 million times(guarantee 10 years) Please power reset, if still display E-00,doing following step: 1.E-00 & No alternate display for inquire reset EEPROM 2.Decide Yes with ▲or▼key, press FN key return normal display 3.EEPROM was reset, Please follow step 1~7 set again