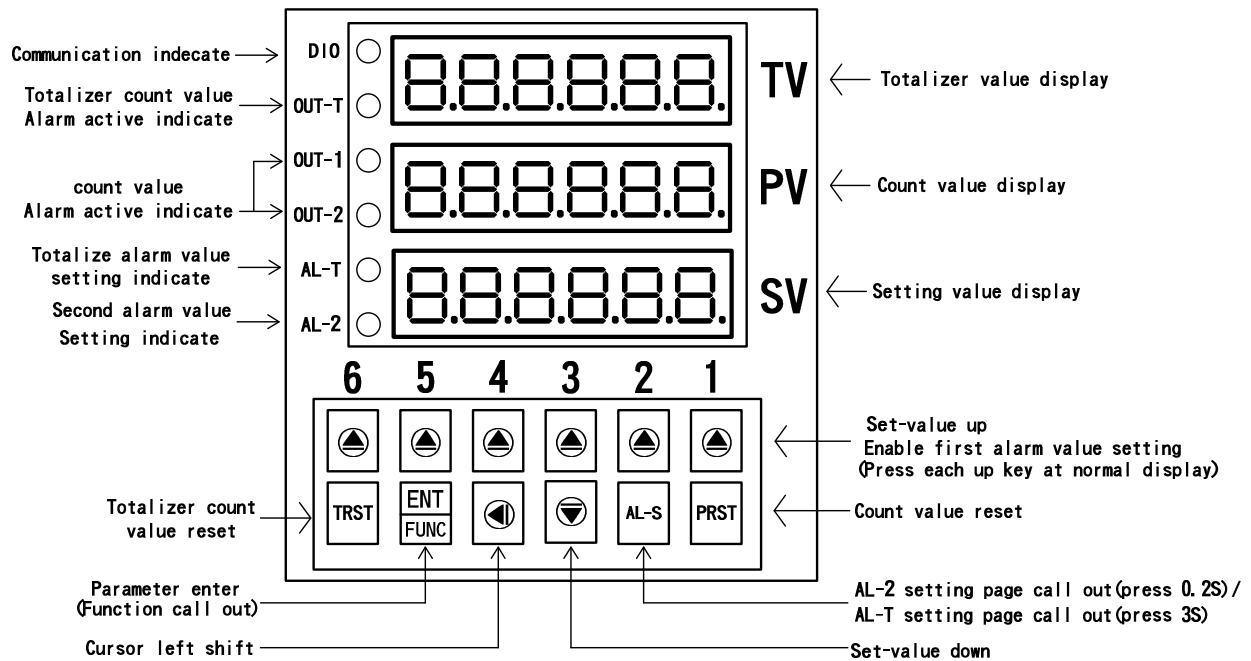


AXE 6 DIGITAL ONE/TWO ALARM & 6 DIGITAL TOTALIZER COUNTER(72x72mm) MT726 series

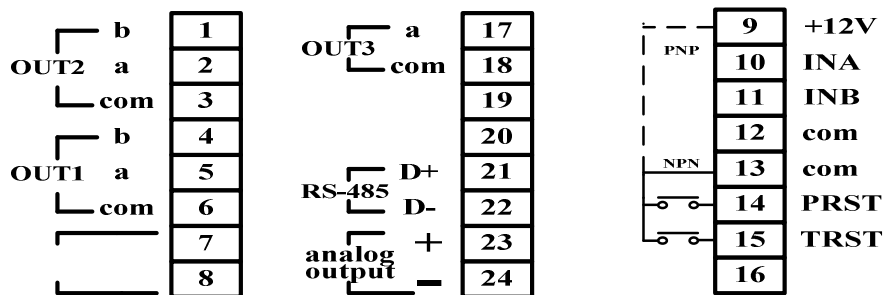
■ Features

- ⊙ Accept more type sensors (switch, encoder, proximity switch, ... etc) finish length/flow control
- ⊙ Accept input rates up to 50KHz
- ⊙ Readout range -199999~999999
- ⊙ Display value can be reset form Panel or Terminal
- ⊙ Power down saving
- ⊙ Decimal point can be modified
- ⊙ Input scaling multiplied 0.00001~9.99999 can be modified
- ⊙ Totalizer counting mode can be modified (synchronize or un-synchronize)
- ⊙ N,R,C alarm control mode
- ⊙ Alarm output action times 0~99.9sec can be modified
- ⊙ NPN/PNP count input type can be modified
- ⊙ Man-machine interface, easy to operate
- ⊙ EEPROM saving, data safekeeping about 10 years
- ⊙ Protection class NEMA4/IP67

■ Name Of Parts



■ Connection Diagram



■ Alarm output control description

- ⊙ N(MANUAL): When count value equal setting value the RELAY ON & continue count until reset by panel or connect terminal then RELAY OFF & count value reset.
- ⊙ R(RETURN): When count value equal setting value the RELAY ON & continue count until relay action time out then RELAY OFF & count value reset.
- ⊙ C(CONTINUE): When count value equal setting value the RELAY relay ON & count value reset then continue count & relay action time out the RELAY OFF
- ⊙ N/R/C control mode operate according to AL-1.AL-T operate N mode only.
- ⊙ T-MODE: SYN, TV count and PV count is synchronize counting.
:NSYN, PV count alarm once then totalize count increase one
- ⊙ WARN: When count to [AL-1 value - warn value AL-2 value] OUT-2 RELAY ON , count to AL-1 value OUT-1 RELAY ON and excuting N/R/C mode

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
PRST Key Function	1. Press PRST about 5S, count value reset and OUT1/2 RELAY OFF
TRST Key Function	1. Press TRST about 5S, totalize count value reset and OUT-T RELAY OFF
AL-S Key function	In normal display, 1. call out AL-T setting page(Press key about 3 sec) 2. call out AL-2 setting page (Press key about 0.2 sec)
◀ Key Function	Into parameter setting page,the parameter mark&data is alternate display,If need modify data can press ◀ 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)
Each ▲ Key Function	1. In normal display, press each ▲ key to enable setting AL-1 value. 2. while Into parameter setting page, the parameter mark&data is alternate display, If need modify data can press each ▲ 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	Into parameter setting page, the parameter mark&data is alternate display, If need modify data can press ▼ 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

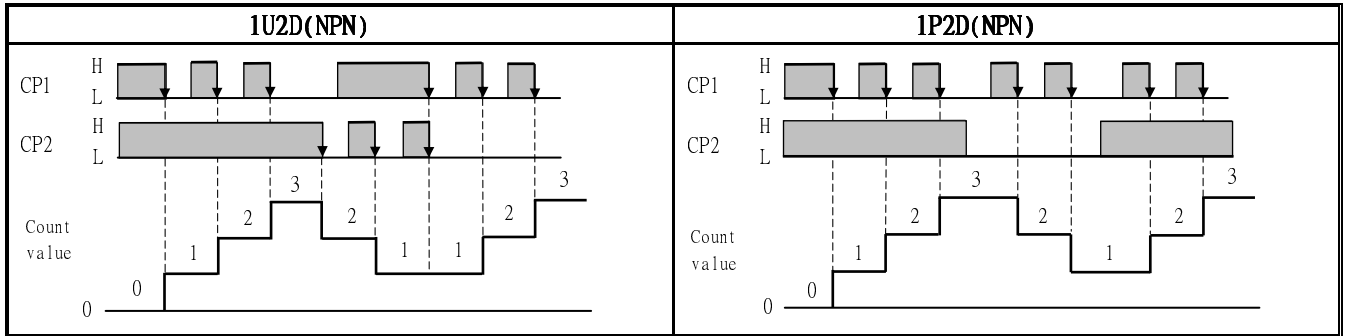
■ Inside parameter operate procedure

Step	Parameter Mark Description	Parameter Mark	Operation Manual
1	Normal display	1 2 3 4 5 6 1 2 3 4 5 6 1 2 3 4 5 6	Press ☐/FUNC key into P.CODE setting page
2	P.CODE(Pass code input page) Default=0	1 2 3 4 5 6 P . C o d e 1 2 3 4 5 6	1.Key in 6 digit pass code with per ▲&▼&◀key 2.Press ☐key, If the pass code is correct then into setting group,otherwise return normal display
3	SYS(System Setting Group) ROP(Alarm output Setting Group) AOP(Analog output Setting Group) DOP(Communication setting group)	5 4 5 r o p A o p d o p	1.Select setting group with ◀key 2. Press ☐key into setting page of selection setting group
4	SYS(System)	5 4 5	1.Press ◀key decide SYS setting group 2.Press☐key into C-I-T setting page
4-1	C-I-T(Count Input Type) Default=NPN	1 2 3 4 5 6 C - I - T n p n	1.Decide Count Input Type with digit 1 ▲ or ▼ key (NPN, PNP) 2. Press ☐ key enter data and into I-MODE setting page
4-2	I.MODE(Input Mode) Default=1U2D	1 2 3 4 5 6 I . M o d e 1 U 2 d	1. Decide input mode with digit 1 ▲ or ▼ key (1U2D/1P2D) 2. Press ☐ key enter data and into C-R-S setting page
4-3	C-R-S(Count Rates Select) Default=50KHz	1 2 3 4 5 6 C - R - S 5 0 K H z	1. Decide count rates select with digit 1 ▲ or ▼ key (50Hz,50KHz) 2. Press ☐ key enter data and into T-MODE setting page
4-4	T-MODE(Totalizer Counter Mode) Default=SYN	1 2 3 4 5 6 T . M o d e 5 4 n	1. Decide totalizer counter mode with digit 1 ▲ or ▼ key (SYN,NSYN) 2. Press ☐ key enter data and into PV_DP setting page
4-5	PV-DP(PV Decimal Point) Default=0	1 2 3 4 5 6 P v . d p 0 0 0 0 0 0	1. Decide PV decimal point with digit 1 ▲ or ▼ key (0~5) 2. Press ☐ key enter data and into TV_DP setting page
4-6	TV.DP(TV Decimal Point) Default=0	1 2 3 4 5 6 T v . d p 0 0 0 0 0 0	1.Decide TV decimal point with digit 1 ▲ or ▼ key(0~5) 2.Press☐key enter data and into RST_T setting page

4-7	RST-T(Reset Time) Default=20mS	1 2 3 4 5 6	1. Decide reset time with digit 1 (1mS/20mS) 2. Press key enter data and into SCALE setting page
		r 5 t - t	
		2 0 m S	
4-8	SCALE(Scale) Default=1.00000	1 2 3 4 5 6	1. Decide SCALE with per digit & & key(0.00001~9.99999) 2. Press key enter data and into CODE setting page Note: count value=input pulse*Scale
		S C A L E	
		1 0 0 0 0 0	
4-9	CODE(Code) Default=0	1 2 3 4 5 6	1. Decide CODE with per digit & & key (0~999999) 2. Press key enter data and into LOCK setting page
		C o d e	
		0 0 0 0 0 0	
4-10	LOCK(Panel Lock) Default=NO	1 2 3 4 5 6	1. Decide panel lock with digit 1 (NO or YES) 2. Press key enter data and return SYS setting group Note: Lock=Yes, all parameter just review (can't modified), only first alarm value Can be modified by press each up key.
		L o c k	
		n o	
5	ROP(Alarm setting group)	r o p	1.Press key decide ROP setting group 2.Press key into WARN setting page
5-1	WARN(Pre-warn) Default=NO	1 2 3 4 5 6	1. Decide Pre-warn with digit 1 (NO or YES) 2. Press key enter data and into AL-O-M setting page
		w a r n	
		n o	
5-2	AL-O-M(Alarm Output Mode) Default=N	1 2 3 4 5 6	1. Decide Alarm Output Mode with digit 1 (N, R, C) 2. Press key enter data and into ACT-T setting page
		A L - o - n	
		n	
5-3	ACT-T(Active Time) Default=1.0	1 2 3 4 5 6	1. Decide Active Time with digital 1~4 & & key (0.1~999.9S) 2. Press key enter data and return ROP setting group
		A C T - t	
		1.0	
6	AOP(Analog output setting group)	A o p	Press key decide AOP setting group , press key into AO-SEL setting page
6-1	AO-SEL(Analog Output Select) Default=PV	1 2 3 4 5 6	1. Decide AO-SEL with digit 1 (PV or TV) 2.Press key enter data and into ANLO setting page Note: PV: count value, TV: totalizer count value
		A o - S E L	
		P v	
6-2	ANLO(Analog Output Zero- According to Display) Default=0	1 2 3 4 5 6	1. Decide ANLO with per digital & & key (-199999~999999) 2. Press key enter data and into ANHI setting page
		A n L o	
		0 0 0 0 0 0	
6-3	ANHI(Analog Output Span- According to Display) Default=999999	1 2 3 4 5 6	1. Decide ANHI with per digital & & key (-199999~999999) 2. Press key enter data and into AZERO setting page
		A n H i	
		9 9 9 9 9 9	
6-4	AZERO(Analog Output Zero Adjust) Default=0	1 2 3 4 5 6	1. Decide AZERO with digital 1~4 & & key (± 6000) 2. Press key enter data and into ASPAN setting page
		A Z E R o	
		0 0 0 0 0 0	
6-5	ASPAN(Analog Output Span Adjust) Default=0	1 2 3 4 5 6	1. Decide ASPAN with digital 1~4 & & key (± 6000) 2. Press key enter data and return AOP setting group
		A S P A n	
		0 0 0 0 0 0	
7	DOP(Communication setting group)	d o p	press key decide DOP setting group,press key into ADDR setting page
7-1	ADDR(Communication –Address) Default=0	1 2 3 4 5 6	1.Decide address with digital 1~3 & & key(0~255) 2.Press key enter data and into BAUD setting page
		A d d r	
		0 0 0	
7-2	BAUD(Communication Baud Rate) Default=19200	1 2 3 4 5 6	1.Decide baud rate with per digital 1 & key (19200,9600,4800,2400) 2.Press key enter data and into PARI setting page
		b A U d	
		1 9 2 0 0	
7-3	PARI(Communication Parity Check) Default=n82	1 2 3 4 5 6	1.Decide parity check with digital 1 & key(n82,n81,even,odd) 2.Press key enter data and return DOP setting group
		P A R i	
		n . 8 2	

■ Outside function key operate procedure			
Step	Parameter mark description	Parameter mark	Operation manual
8	Setting AL-1 value Default=100000	1 2 3 4 5 6	1. In normal display, press each \blacktriangle key to enable setting AL-1 value. 2. Decide AL-1 value with per digital \blacktriangle & \blacktriangledown & \blacktriangleleft key (-199999~999999) 3. No key in anything 5S or Press ENT key enter data and return normal display
		1 2 3 4 5 6	
		1 0 0 0 0 0	
9	Setting AL-2 value Default=1000	1 2 3 4 5 6	1. In normal display, press AL-S key (about 0.2S), into AL-2 setting page 2. Decide AL-2 value with per digital \blacktriangle & \blacktriangledown & \blacktriangleleft key (-199999~999999) 3. No key in anything 5S or Press ENT key enter data and return normal display
		AL - 2	
		0 0 1 0 0 0	
10	Setting AL-T value Default=999999	1 2 3 4 5 6	1. In normal display, press AL-S key (about 3S), into AL-T setting page 2. Decide AL-T value with per digital \blacktriangle & \blacktriangledown & \blacktriangleleft key (-199999~999999) 3. No key in anything 5S or Press ENT key enter data and return normal display
		AL - T	
		9 9 9 9 9 9	

■ Input Type and Count Value



Note: In 1U2D/1P2D mode, while C_I_T=NPN trigger at falling edge,
while C_I_T=PNP trigger at rise edge

Appendix	Error Mark description	Error Mark	Analyze & Description
1	Display over range error detect	d o F L	Display over range(999999)
2	Display under range error detect	$-\text{d o F L}$	Display under range (-199999)
3	EEPROM error detect	$\text{E} - \square\square$	1.External interference when EEPROM read/write 2.EEPROM write over 100000 times (guarantee 10 years)
		$\square\square$	Please power reset,if still display E-00,doing following step: 1.E-00 & No alternate display for inquire reset EEPROM
		H E S	2.Decide Yes with \blacktriangle & \blacktriangledown key,press ENT key return normal display 3.EEPROM was reset,Please follow step 1~10 setting again

MT726 Modbus RTU Mode Protocol Address Map

Data format 16Bit/32Bit, sign bit

8000~7FFF(-32768~32767),80000000~7FFFFFFF(-2147483648~2147483647)

位址	變數名稱	說明	動作
0000	C_I_T	Count Input Type,Input Range 0000~0001 (0~1) (0:NPN,1:PNP)	R/W
0001	I_MODE	Input mode, Input Range 0000~0001 (0~1) (0:1U2D, 1:1P2D)	R/W
0002	C-R-S	Count Rates Select, Input Range 0000~0001 (0~1) (0:50Hz, 1:50KHz)	R/W
0003	T_MODE	Totalizer Counter Mode, Input Range 0000~0001 (0~1) (0:SYN, 1:NSYN)	R/W
0004	TV-DP	TV Decimal Point, Input Range 0000~0005 (0~5)(0:10 ⁰ ,1:10 ⁻¹ ,2:10 ⁻² ,3:10 ⁻³ ,4:10 ⁻⁴ ,5:10 ⁻⁵)	R/W
0005	PV-DP	PV Decimal Point, Input Range 0000~0005 (0~5)(0:10 ⁰ ,1:10 ⁻¹ ,2:10 ⁻² ,3:10 ⁻³ ,4:10 ⁻⁴ ,5:10 ⁻⁵)	R/W
0006	RST_T	Reset time, Input Range 0000~0001 (0~1) (0:1mS, 1:20mS)	R/W
0007	LOCK	Panel lock, Input Range 0000~0001 (0~1)(0:NO, 1:YES)	R/W
0008	WARN	Pre-warn, Input Range 0000~0001(0~1) (0:NO, 1:YES)	R/W
0009	AL-O-M	Alarm Output Mode, Input Range 0000~0002(0~2) (0:N, 1:R, 2:C)	R/W
000A	ACT-T	Active time, Input Range 0001~270F(0.1~999.9)	R/W
000B	AO-SEL	Analog Output Select, Input Range 0000~0001(0~1) (0:PV,1:TV)	R/W
000C	ADDR	Communication Address,Input Range 0000~00FF (0~255)	R/W
000D	BAUD	Communication Baud Rate,Input Range 0000~0003 (0~3)(0:19200,1:9600,2:4800,3:2400)	R/W
000E	PARI	Communication Parity Check,Input Range 0000~0003 (0~3)(0:N82,1:N81,2:EVEN,3:ODD)	R/W
000F	A_ZERO	Analog Output Zero Adjust,Input Range E890~1770 (-6000~6000)	R/W
0010	A_SPAN	Analog Output Span Adjust,Input Range E890~1770 (-6000~6000)	R/W
0011	CODE	Pass Code, Input Range 00000000~000F423F (0~999999)high word	R/W
0012		Pass Code, Input Range 00000000~000F423F (0~999999)low word	R/W
0013	SCALE	Display Scale, Input Range 00000001~000F423F (0.00001~9.99999)high word	R/W
0014		Display Scale, Input Range 00000001~000F423F (0.00001~9.99999)low word	R/W
0015	ANLO	Analog Output Zero According to Display, Input Range FFFCF2C1~000F423F (-199999~999999)high word	R/W
0016		Analog Output Zero According to Display, Input Range FFFCF2C1~000F423F (-199999~999999)low word	R/W
0017	ANHI	Analog Output Span According to Display,Input Range FFFCF2C1~000F423F (-199999~999999)high word	R/W
0018		Analog Output Span According to Display,Input Range FFFCF2C1~000F423F (-199999~999999)low word	R/W
0019	AL-1	AL-1, Input Range FFFCF2C1~000F423F (-199999~999999)high word	R/W
001A		AL-1, Input Range FFFCF2C1~000F423F (-199999~999999)low word	R/W
001B	AL-2	AL-2, Input Range FFFCF2C1~000F423F (-199999~999999)high word	R/W
001C		AL-2, Input Range FFFCF2C1~000F423F (-199999~999999)low word	R/W
001D	AL-T	AL-T, Input Range FFFCF2C1~000F423F (-199999~999999)high word	R/W
001E		AL-T, Input Range FFFCF2C1~000F423F (-199999~999999)low word	R/W
001F	TV_DISP	Totalizer value display, Input Range FFFCF2C1~000F423F (-199999~999999)high word	R
0020		Totalizer value display, Input Range FFFCF2C1~000F423F (-199999~999999)low word	R
0021	PV_DISP	Count value display, Input Range FFFCF2C1~000F423F (-199999~999999)high word	R
0022		Count value display, Input Range FFFCF2C1~000F423F (-199999~999999)low word	R
0023	STATUS	Status,Display Range 0000~003F(0~63) (0:OFF,1:ON) (Bit0:OUT-1,Bit1:OUT-2,Bit2:OUT-T,Bit3:non use(read as 0), Bit4:TV DOFL,Bit5:TV -DOFL, Bit6:PV DOFL,Bit7:PV -DOFL)	R
0024	RST	Write = 0001(Function 06), count value reset ; Write = 0002(Function 06), totalizer count value reset	W