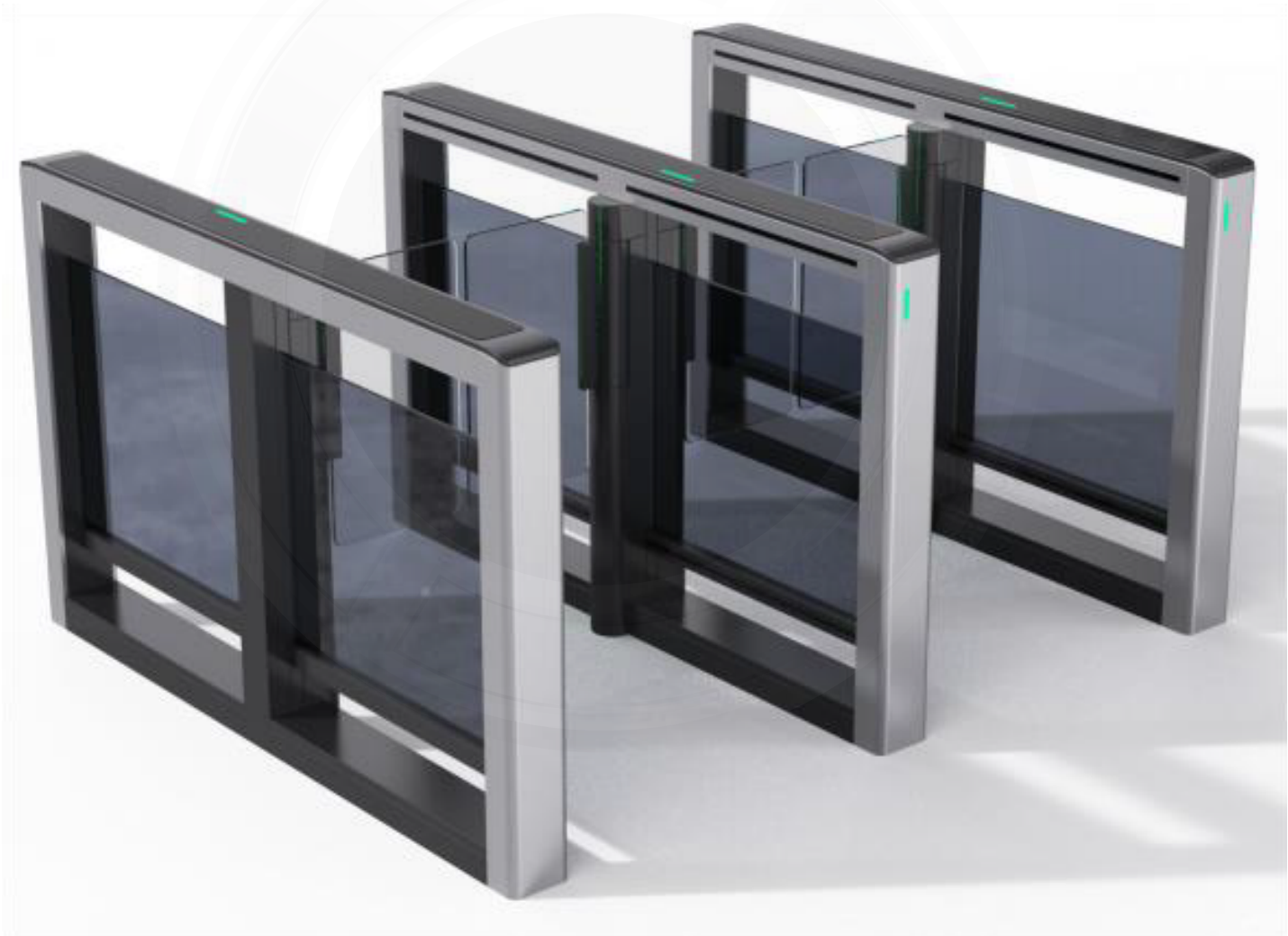
Manual book

OT-TORABASERVO1P **OT-TORABASERVO2P**



Content

1. Product introduction

The system consists of turnstile control board, supporting brushless servo motor, using servo control technology, real time detection of motor position, without external encoder, self-learning load curve, with physical anti-pinch protection, adjustable sensitivity, support access mode settings such as card swiping cards, free, and forbidden; it has access logic detection such as illegal intrusion, trailing passage, detention, reverse passage, infrared anti-pinch, etc., suitable for access gate equipment such as speed gate/swing turnstile, wing turnstile/sliding turnstile.

1.1. Features

	Brushless Servo Solution	Ordinary brushless solution
Adaptation motor	Brushless motor with 2400 line position feedback	Ordinary DC brushless motor
Anti-pinch protection	Current + position double detection, adjustable sensitivity	No encoder, low anti-pinch sensitivity
Control effect	Fast open/close door, stable in place, no shaking	the deceleration is obvious in place, and there is shaking

1.2. technical parameter

- Input power: DC24V, dual power connection,150W / 6.5A for single side is recommended; single power connection, 300W is recommended;
- Adapted motor: DC brushless motor below 60W, with 2400 line position feedback;
- Communication method: RS232 serial communication, support Modbus protocol;
- Power off and open door DC12V battery, or optional super capacitor module;
- Working environment:-20 ~ 55 , humidity below 90% (no condensation)
- Infrared sensor: 6 independent interfaces, PNP, NPN normally open, open collector type;
- Voice output: External 8W 4Ω speaker.

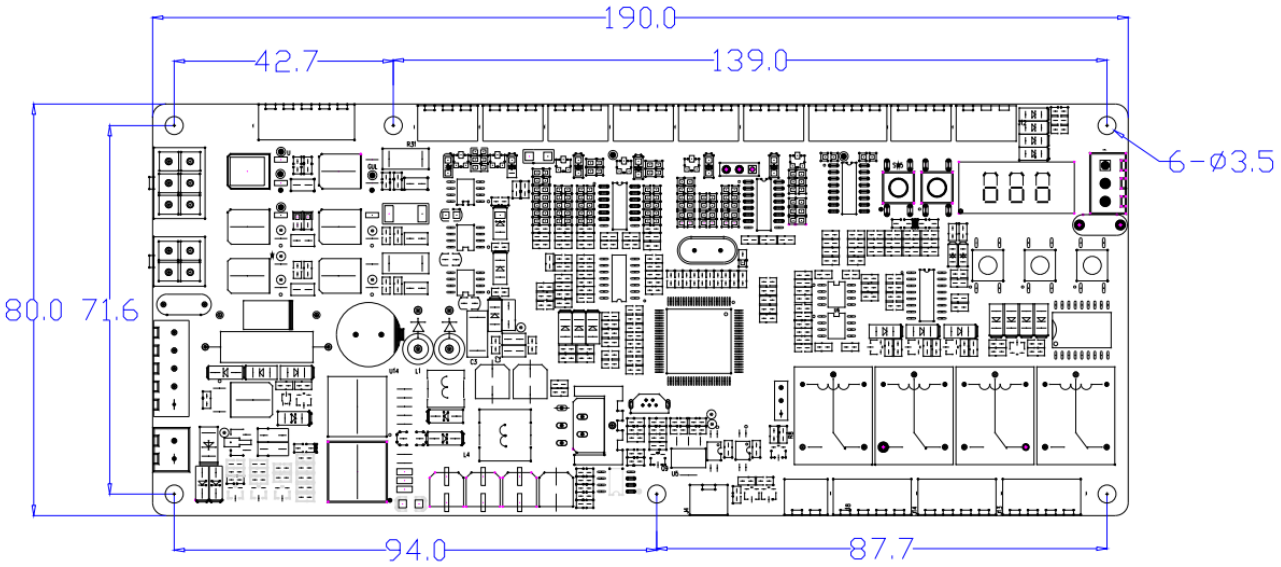
1.3. Normally open and fire function

Normally open mode: Long press the card swipe button for 3S or connect the card swipe signal port and GND 3S continuously, the gate will enter the normally open mode (give LO signal 3s is normally open for the outgoing direction, and 3S for the RO signal is for the normally open mode for the incoming direction). At this time, the access door is opened (infrared judgment invalid), the light is displayed as a green light, and the buzzer and horn have no output. Cancel signal, the gate is closed, and the previous state is restored.

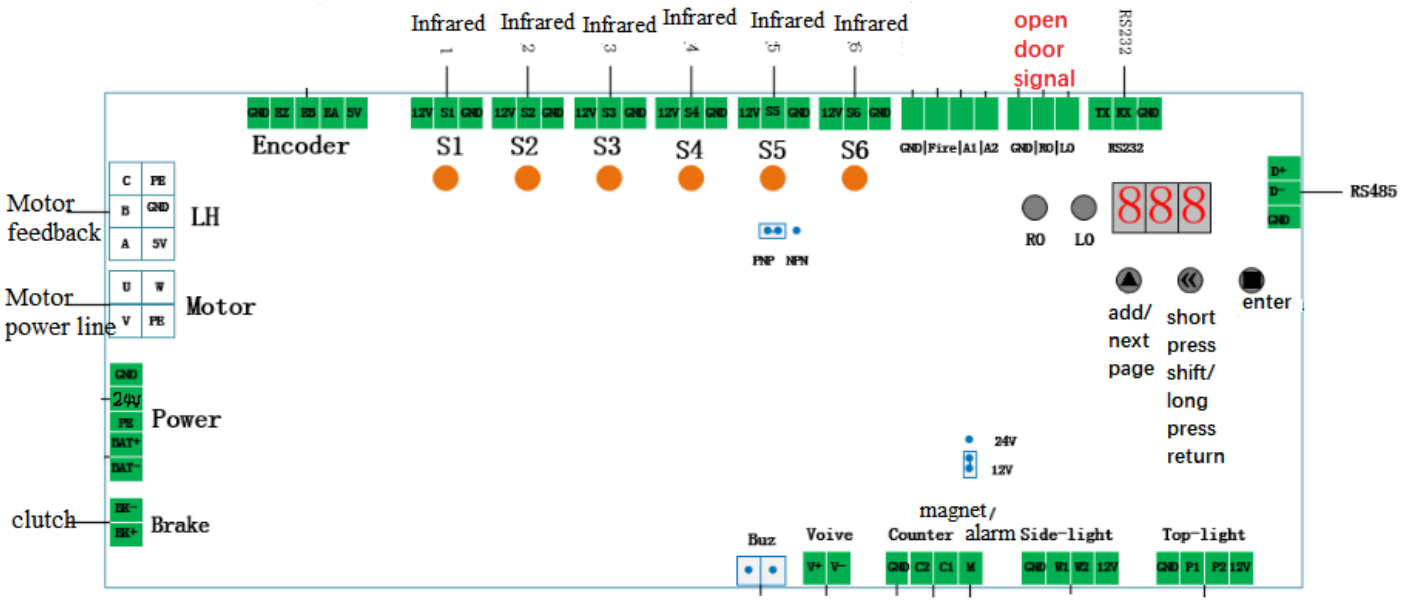
Fire mode : When the auxiliary port Fire is connected to GND, turnstile will enter the fire mode state. At this time, the door is opened (infrared judgment is invalid), the light shows a green light, the buzzer sounds, and the voice broadcasts "fire alarm, please evacuate quickly". Cancel signal, the gate is closed, and the previous state is restored.

2. Port Definition

2. 1. Installation dimension drawing



2. 2. Controller port

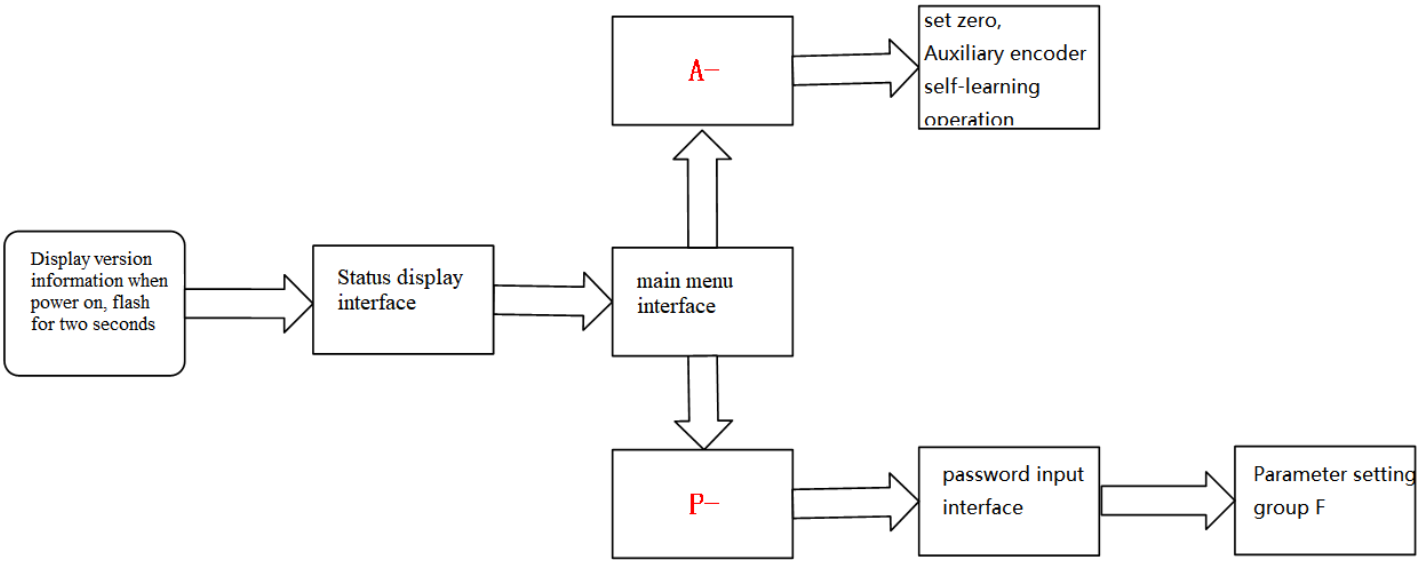


2. 3. Port and Description

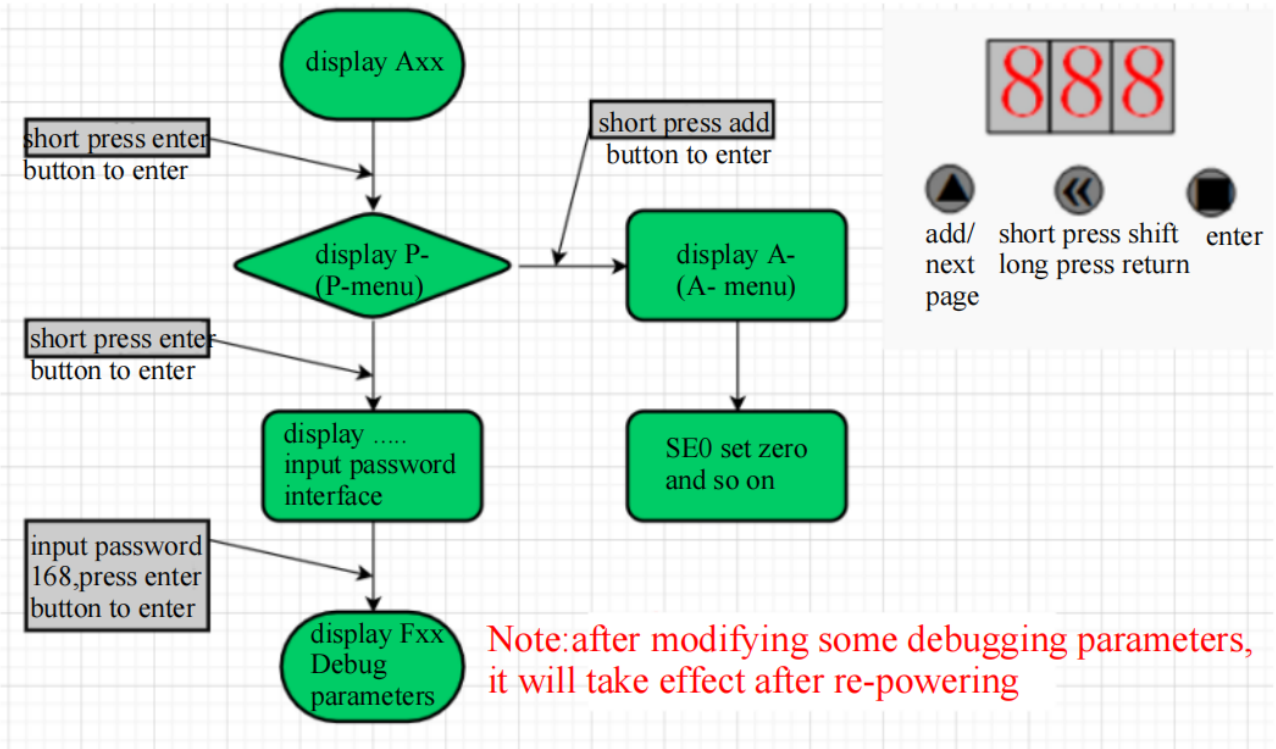
input power	External 24V switching power supply, dual power supply independent connection The power is recommended to be more than 150W for one side; the recommended power is more than 300W for the single power supply and connection method
battery	External 12V 1.3Ah battery or super capacitor, No need to connect if no need the power off open door function
Auxiliary encoder	For external connection of auxiliary incremental encoder
Auxiliary port (NPN type)	A1: Swing turnstile wing turnstile limit switch, tripod turnstile zero switch; A2: Swing brake wing brake limit switch
counter	C1 is the counting output of the entrance traffic direction C2 is the counting output of the exit traffic direction
Electromagnet/Alarm	Swing turnstile wing turnstile alarm signal output; Tripod turnstile electromagnet output (12V/24V optional)
Synchronization and Communication	RS485: master-slave synchronous communication; RS232: communicate with the host computer;

3. Set operation

3. 1. key operation



3. 2. Button function description



3. 3. menu display

A - menu	
display code	function
SE0	set zero
IdE	Auxiliary encoder parameter identification

3. 4. Operation example

3. 4. 1. Auxiliary encoder parameter identification A -IdE

Step 1: Exit to the main menu, and find the setting parameter menu entry "A", and then short press right " " enter button to enter the submenu.

Step 2: Short press the left " " to find "IdE", and then short press the right " " to enter, the digital tube flashes and displays "19", when the status 19 appears, manually swing the door panel to the maximum stroke. Manual multi-turn is used for motor reduction ratio identification of tripod turnstile

Step 3: If it reports that the recognition phase is missing (E05), check whether the auxiliary encoder is connected well or whether it has manually swing the door panel, and report the reverse recognition (E06), please adjust the AB relative; The recognition completion status is 00, at this time, it needs to be powered on again.

3. 4. 2. set zero

Step 1: Exi t to the main menu, and find the setting parameter menu entry "A", then short press the " " enter button on the right to enter the submenu, short press the " " on the left to find "SE0"; or enter in the password input interface "000".

Step 2: Short press " " on the right side to enter, the door panel will enter the disabled state, then put the door panel to the set position.

Step 3: After 5 seconds, the turnstile will automatically reset.

4. Quick commissioning wizard

Note: Use standard controller with st andard motor, acrylic door plate below 400mm, only need to adjust the rotation direction of F01 door plate after leaving the factory

4. 1. Speed gate/swing turnstile/flap turnstile/sliding turnstile

step	name	operation	note
1	Set master and slave	Set F00 master000，salve 001	The default A and B boards can skip this step, and the double A board needs to be set
2	Set the master slave rotation direction	Set F01 Motor rotation direction 0/1	Enter the F01 parameter of the A board and change it to 1-0 or 0-1
3	Set turnstiletype	Set F33 Select 0-swing turnstiledouble door 1- Swing turnstilesingle door 2-Wing turnstile /sliding turnstile double gate 3-Wing turnstile /sliding turnstile single door	The swing turnstile is set to 0, and the wing turnstile and sliding door are set to 2; after the setting is completed, power on again
4	Set the motor reduction ratio	According to the actual deceleration ratio (external deceleration ratio × motor deceleration ratio), set the F49 parameter	The structure that the movement structure with its own reduction ratio needs to be set
5	Set infrared type	Set infrared PNP/NPN jumper caps Set F37 0-PNP/1-NPN type	Default 0-PNP General jumper caps and parameters need to be changed
6	Set infrared pairs	Set F17 to select 3, 4 or 6 pairs	The default value is 1-6 pairs of infrared (set according to the number of infrared interfaces connected to the A board)
7	Set zero	A-SE0 Set door panel zero position	Only the swing turnstile needs to set

			the zero point
8	Set open/close door position	Set F14、F15parameter	F14 is reverse opening/closing
9	Set the open/close door speed	Set F03 motor speed percentage Or set F65 to modify the door panel type gear parameters	
10	Auxiliary encoder identification	A-IdE Operation carries out parameter identification of auxiliary encoder	This operation is not required if no auxiliary encoder is installed

4. 2. Tripod turnstile

step	name	operation	note
1	Set host and motor direction	Set F00 Host 00 Set F01 Motor rotation direction 0/1	
2	Set turnstiletype	Set F33 to select 4-tripod turnstile	need power on again
3	Set the motor reduction ratio	According to the actual reduction ratio, set the F49 parameter	The structure that the movement has own reduction ratio needs to be set
4	Set the zero switch	Set the F02 auxiliary port function to 2-zero switch, and connect the zero switch to the auxiliary port A1 interface;	Zero switch supports NPN type
5	Set zero position	A-SE0 Set zero position	
6	Set the pre opening angle	Set F54 pre-opening angle parameters	The rotation angle of the tripod turnstile after swiping the card
7	Set closing speed	Set F52 tripod turnstile closing speed	
8	Set the pusharm strength	Set F55tripod turnstile push arm strength	
9	Auxiliary encoder identification	A-IdE Operation carries out parameter identification of auxiliary encoder	This operation is not required if no auxiliary encoder is installed

5. Parameter table

5. 1. password operation

password	function	password	function
168	Parameter debugging permission	111	Check infrared status
618	turnstile reset	321	Restore default parameters (master-slave)

5. 2. parameter settings

parameter number	Function code address	Function code name	Defaults	set range	note
F00	05 01	Master and slave settings	0	0 ~ 1	0-Master 1-Slave *Note: The master-slave combination of the AB board does not need to set this parameter; only the double A board need to set this parameter.
F01	00 0D	Motor rotation direction	0-0	0 ~ 1	0-0 (slave-master) 0-reverse 1-forward *Note: In general, if you want the master-slave direction to be the same, you need to change it to 0-0 or 0-1, which is selected according to the actual installation in and out direction.
F02	04 08	Auxiliary Sensor Settings	0	0 ~ 4	0 - no auxiliary sensor (zero switch self-identification); 1- Incremental encoder (swing turnstile, wing turnstile, tripod turnstile); 2-Zero switch (swing turnstile, tripod turnstile A1); 3-2 limit switches (A1+A2); 4-Without auxiliary sensor, the zero switch A2 is the security door signal
F03	09 00	Open/close door speed (%)	60	1 ~ 100	Percentage of motor rated speed
F04	09 01	acceleration	20	1 ~ 200	The higher the value, the faster the acceleration
F05	09 06	run blocking current	1.0	0 ~ 900	0 means no blocking judgment The smaller the value, the higher the anti-pinch sensitivity
F06	09 08	zero-turning current	2.5	1 ~ 100	Appropriately increase when look for zero is abnormal
F07	09 09	Speed loop ratio	120	1 ~ 999	When the door panel is heavy, it should be enlarged appropriately
F08	09 0B	Position ring ratio	45	1 ~ 999	Appropriately reduce when in-position overshoot

parameter number	Function code address	Function code name	Defaults	set range	note
F09	08 1D	Strong push judgment angle	2.5	1 ~ 90.0	The larger the set value, the larger the push-open angle.
F10	08 09	look for zero speed	10	1 ~ 80	Percentage ofmotor rated speed
F11	08 25	Block mode selection	1	1 ~ 2	1- Bounce at an angle 2- Speed and torque decrease
F12	08 18	Push mode selection	1	0 ~ 1	0-unlocking clutch 1-locking clutch
F13	08 10	Emergency stop mode	1	0 ~ 1	0-unlocking clutch 1-locking clutch
F14	0A 19	Close in place indent angle	5.0	1 ~ 90.0	The smaller the set value, the larger the opening and closin angle (corresponding to swing turnstile reverse opening angle, wing turnstile closing angle)
F15	0A 1A	Open position retractionangle	5.0	1 ~ 90.0	The smaller the set value, the larger the opening angl (corresponding to swingturnstile positive opening angle, wing turnstile opening angle)
F16	0F 00	turnstile model	1	0 ~ 10	0: aging mode 1: Two-way swipe card 2: Two-way freedom 3: Bidirectional prohibition 4: Incoming swipe + outgoingfree 5: Incoming swipe + outgoing prohibition 6: Incoming freedom + outgoing swipe card 7: Incoming freedom + outgoing prohibition 8: Entry prohibition + exit freedom 9: Incoming prohibition +outgoing card swiping 10: Test mode (no pass logic)
F17	0F 01	infrared pairs	1	0 ~ 2	0：3 pairs infrared 1：6 pairs infrared 2：4 pairs infrared
F18	0F 02	Swipe card continuously	00	00 ~ 11	When F18 = 00 or 10, continuous swiping card (memory swiping) is turned off; When F18=01, the continuous card swiping (memory card swiping) is enabled, and when the card is swiped several times continuously, only one voice broadcast is performed; When F18=11, continuous card swiping (memory card swiping) is enabled, and when the card is swiped multiple times continuously, voice broadcast will be performed each time.
F19	0F 03	Turnstile Standby state	0	0 ~ 1	0：normally close 1：normally open

parameter number	Function code address	Function code name	Defaults	set range	note
F20	0F 04	max pass time	10	1~65	Unit: second, thedoor will automatically close after timeout
F21	0F 05	swipe card in turnstile	1	0 ~ 1	0：not allow 1：allow *When the card is allowed to be swiped in the channel, the entry and exit first infrared will not report illegal intrusion
F22	0F 06	Whether close door when reverse breakin	1	0 ~ 3	0: Do not close the door 1: Close the door 2: The door will not be closed for reverse breakin, and it will switch to the standby state after the passage is completed. 3: The door will close for reverse break-in, switch to standby state afterreverse breakin is canceled
F23	0F 07	voice volume	15	0 ~ 15	
F24	0F 08	Trailing detection delay time	30	0 ~ 999	unit：10 ms
F25	0F 09	Whether to lock the clutch when the door is closed	0	0 ~ 1	0：not lock 1：lock
F26	0F 0A	Whether to lock the clutch for illegal intrusion	0	0 ~ 1	0：not lock 1：lock
F27	0F 0B	infrared filter time	1	0 ~ 500	unit：10 ms
F28	0F 0C	After swiping the card, the delay time of the opposite swiping card is allowed	500	0 ~ 600	unit：10 ms
F29	0F 0D	Fire alarm door opening direction	1	0 ~ 1	0：exit open door 1：entry open door
F30	0F 0E	Opening delay after swiping the card	0	0 ~ 500	unit：10 ms
F31	0F 0F	Opening delay after pass	0	0 ~ 500	unit：10 ms
F32	0F 10	Maximum stay time in the channel	10	0 ~ 999	unit：second
F33	0F 12	Controller	0	0 ~ 3	0: Swing turnstiledouble door

parameter number	Function code address	Function code name	Defaults	set range	note
		door type (Reboot is required after modification)			1: swing turnstilesingle door 2: Wing turnstiledouble door 3: Wing turnstilesingle door 4: Tripod turnstile
F34	0F 14	Trigger anti-pinch delay	32	0 ~ 999	unit：1ms
F35	0F 15	Exit anti-pinch delay	250	0 ~ 999	unit：1ms
F36	0F 16	turnstile control command	0	0 ~ 32	1: Positive open 2: Reverse open 16: Forward normally open 32: Reverse normally open (decimal unit)
F37	0F 17	infrared type	0	0 ~ 1	0：PNP normally open 1：NPN normally open
F38	0F 18	Whether there is a buzzer prompt when the door is opened	0	0 ~ 1	0：no 1：yes
F39	0F 19	English voice	0	0 ~ 1	1：English
F40	0F 1A	Entry Voice Settings	0	0 ~ 79	
F41	0F 1B	Exit voice settings	6	0 ~ 79	
F42	0F 1C	Trailing Voice Settings	3	0 ~ 79	
F43	0F 1D	Reverse break into voice settings	2	0 ~ 79	
F44	0F 1E	Stuck Voice Settings	4	0 ~ 79	
F45	0F 28	break-in voice	1	0 ~ 79	
F46	0F 29	RGB light output enable	2	0 ~ 2	0: Disabled (traffic lights and welcome lights are valid) 1: Bidirectional RGB light logic 2: Standard RGB light logic
F47	05 04	Baud rate setting（RS232）	5	0 ~ 5	4800 / 9600 / 19200 / 38400 / 57600 / 115200
F48	08 14	Block bounce angle	20.0	0 ~ 99.9	The larger the setting value, the larger the rebound angle.
F49	08 00	Reduction ratio	25	1 ~ 999	Actual reduction ratio setting
F50	0F 2A	Counter port output mode	2	0 ~ 1	0 - default counter output 1- Output as a traffic light 2- Output as welcomelight
F51	05 0D	Sync interface	0	0~1	0-RS485 1 -RS232

parameter number	Function code address	Function code name	Defaults	set range	note
		settings			
F52	09 03	Tripod turnstile closing speed	60	1~100	Percentage of motor rated speed (data conversion)
F53	09 0C	tripod turnstile block current	3.0	0~300	tripod turnstile block current（0.1A）
F54	08 0B	Tripod turnstile Pre-opening angle	15.0	1~90.0	Tripod turnstile Pre-opening angle setting
F55	08 22	Tripod turnstile push arm strength	20	10~300	Tripod turnstile push arm strength setting
F56	0A 0C	tripod turnstiles look for zero swing times	3	0~9	tripod turnstiles look for zero swing times（Positive 60°, negative 60°, and positive 120° are once）
F57	0C 0C	Auxiliary encoder linkage coefficient	251	1~999	That is, how many positions of the main encoder correspond to one position of the auxiliary encoder (replacement of the auxiliary encoder resolution and reduction ratio settings)
F58	06 07	position follows maximum deviation angle	100	0~ 900	Used for double closed loop look for zero, set to 0, this function is invalid;
F59	00 0E	Double closed loop structure dead zone setting	20	1~ 200	Structural dead zone refers to the gap problem of the structur If motor jitter occurs, the jitter can be filtered out by increasing this parameter;
F60	0F 2F	Door closing process triggers anti-pinch infrared selection	1	0~ 1	0-Do not open the door (emergency stop) 1: Open the door
F61	04 06	motor model choose	4	1~5	
F62	0F 30	Security check signal valid time setting	5	0~65	Unit:second
F63	0F 34	Positive compensation value of tripod turnstiles/full height turnstiles	0	0~90	The angle unit (0.1 degree) prevents the deceleration ratio from not being the whole position deviation, and how much the deviation is compensates the same

parameter number	Function code address	Function code name	Defaults	set range	note
F64	0F 35	reverse compensation value of tripod turnstiles/full height turnstiles	0	0~90	The angle unit (0.1 degree) prevents the deceleration ratio from not being the whole position deviation, and how much the deviation is compensates the same
F65	08 0F	Turnstile door choose	0	0~7	0-Acrylic 300 1 -Tempered glass 300 2-Acrylic 400 3-Tempered glass 400 4-Acrylic 500 5 -Tempered glass 500 6-Acrylic 600 7 -Tempered glass 600
F66	0F 33	Set the buzzer sound time	10	0-500	unit：100ms
F67	01 15	offset zero position	0	0~900	unit：0.1degree
F68	08 03	look for zero method	2	0~4	0: unilateral turn blockinglook for zero 1: switch signal look for zero 2: Bilateral blocking look for zero 3: flap turnstile look for zero method 4: Both sides are blocked look for zero, and the position of the zero point can be calculated
F69	0B 0C	Reverse opening compensation angle	0	0~450	unit：0.1degree
F70	0F 34	Whether to block the intrusion alarm without swiping the card	0	0~1	0：no 1：yes *Only in 3 pairs of infrared mode, use when 1 group 3 groups of infrared is not connected
F71	04 09	Motor Feedback Type	0	0 or 7	0: Default brushless servo 7: Default incremental encoder *When it is 7, the auxiliary encoder function is invalid, and can only be adapted to incremental type, F08 is fixed to 0

5. 3. Voice Content Table

F40 - F45 can set thevoice content as needed.

Set code	English
80	Welcome
81	Do not enter, authorized personnel only
82	Unauthorized access from opposite direction
83	Don't follow
84	Please pass through quickly
85	Passing from opposite direction
86	Have a nice trip
87	Initialization failure
88	Communication error
89	Master communication error
90	Slave communication error
91	Fire warning, please evacuate immediately
92	Master controller
93	Slave controller
94	Welcome again
95	Welcome home
96	Thank you for your patronage
97	You are under surveillance
98	Construction area! Hard hats must be worn
99	Only one passenger allowed at one time
100	Authorized personnel only
101	Closed off
102	Please authorize outside the line
103	
104	
105	
106	Please go through
107	System startup
108	System startup complete

Set code	English
109	Verification failure
110	Please be careful

6. Status Display

6. 1. turnstile status

When the power is turned on, the nixie tube displays the status information of the turnstile When the menu isexited, the display returns to this display without any key operation for 30S.

For example: "A08" means that the mainmachine closein place; "S08" means that theslave machine closein place

status number	status information	status number	status information
A00	The motor is disabling	A10	Shutdown push
A01	Looking for zero	A12	emergency stop
A02	opening forward	A13	Master-slave wait timeout
A03	opening reverse	A14	countershaftoperation block
A04	closing forward	A15	countershaftshut down block
A05	closing reverse	A17	zero Identification
A06	open in position forward	A18	drive alarm
A07	open in position reverse	A21	power off open door
A08	close in position	A22	power off open door finished
A09	run block	A23	reset

6. 2. Alarm handling

alarm number	Alarm information	Alarm handling method
P01	Forward illegal entry alarm	Pass alarm (only related to infrared,

P02	stay alarm	infrared type setting, jumper cap, infrared interface, etc.)
P03	Forward swipe card someone reverse intrusion alarm	
P04	trailing alarm	
P06	Reverse illegal entry alarm	
P05	Master-slave communication alarm	Check master-slave connection, online line, master-slave settings
E01	Power-on Hall lost	Check the encoder cable or replace the motor
E02	EEPROM error	Drive hardware failure or abnormal software version
E03	Motor stall	Check the motor load is stuck or the motor is abnormal; F05 The running blocking current is too small, increase it appropriately, and do not exceed the rated current of the motor
E10	V-phase current zero calibration error	Possible drive hardware failure or motor issue
E11	U-phase current zero calibration error	
E12	undervoltage	The bus voltage is too low, check the input power
E13	overvoltage	The bus voltage is too high, check the input power
E16	overcurrent	The driver bus is overcurrent, check the motor wiring or motor parameters
E18	look for zero failed	Check whether the transmission structure slips; F61 Motor model setting is wrong, modify it to the correct motor model; F49 gear ratio parameter setting error; F05 does not match the size of the blocking current during operation, adjust it to a large or smaller value

7. Serial communication protocol

Using the RS232 serial communication port, using the Modbus communication protocol format, through the serial communication mode, it can exchange data with the channel controller, such as sending door opening commands, reading the passage status of the channel, setting relevant parameter values, etc.

Serial port type	RS232
baudrate	115200
check bit	no
stop bit	1

1	2	3	4	5	6	7	8
ID	CMD	ADDR_H	ADDR_L	DATA_H	DATA_L	CRC_L	CRC_H
target ID	command keywords	function code high address	function code low address	data high	data low	CRC Check low bits	CRC Check high bits

target ID

Master is 0x01, Slave is 0x02

command keywords

The read function code command is 0x03, and the write function code command is 0x06;

Function code address

Function code parameter F1-00, the address is 0x0C 0x00;

data

The function code value is 01, the data is 0x00 0x01;

CRC check

CRC16 check value, CRC_L CRC_H;

7. 1. door open command

The high data is the number of card swipes, of which 00 and 01 are single card swipes

The low bit of the data bit is the door opening direction selection, 01 represents the entry authorization to open the door, and 02 represents the exit authorization to open the door

One-time authorization open the door command

command	send	return
entry open	01 06 0F 16 00 01 AA DA	09 08 00 01 00 01 71 43
exit open	01 06 0F 16 00 02 EA DB	09 08 00 02 00 01 81 43
close command	01 06 0F 16 00 40 6A EA	

Multiple time authorization open the door command

command	send	return
continue 6 times pass entry open door	01 06 0F 16 06 01 A9 7A	09 08 00 01 00 06 CRC_L CRC_H
continue 12 times pass exit open door	01 06 0F 16 0C 02 EF DB	09 08 00 02 00 0C CRC_L CRC_H

When the memory card swiping function is invalid (F18 = 0), the multiple card swiping command is equivalent to a single card swiping command;

When the memory card swiping function is valid (F18= 1), the function code value 01 01 is equivalent to 00 01, which are all single-pass card swiping commands;

normally open mode command

F15-22=16 means forward normally open mode, F15-22=32 means reverse normally open mode, F15-22=0 means cancel normally open mode

command	send	return
forward normally open mode	01 06 0F 16 00 10 6A D6	01 06 0F 16 00 10 6A D6
Reverse normally open mode	01 06 0F 16 00 20 6A C2	01 06 0F 16 00 20 6A C2
cancel normally open model	01 06 0F 16 00 00 6B 1A	01 06 0F 16 00 00 6B 1A

7. 2. Pass completion status automatically return

Left available passetimes, swipe the card once, the number of times will be increased by 1, the pass is completed once, and theleft times will be reduced by 1.

Used to judge the current state of the turnstile

When it is displayed as 0, it means that all traffic is completed;

When it is displayed as FF FF, it means that the traffic has timed out;

When it is displayed as 00 XX, it means that there are 00 xx passable times remaining.

When the normal passage of pedestrians is completed or the passage times out, the controller will automatically return to the passing state. The return format is:

ID	Return type	Pass direction: 0x01entry、0x02 exit	Left xx times available pass times	CRC16 check
09	04	00 0x	XX XX	CRC_L CRC_H

swipe card one time

Actual pass status	corresponding value	return command content
After swiping the card, have not entered the channel	00 01：left 1 time	Not return
The forward pass is completed, and the door is closed normally	00 00 ： pass completed	09 04 00 01 00 00 CRC_L CRC_H
The exit pass is completed, and the door is closed normally	00 00 ： pass completed	09 04 00 02 00 00 CRC_L CRC_H
If there is no access to the passage, the passage times out, and the passage is closed.	FF FF ： passage times out	09 04 00 01 FF FF CRC_L CRC_H

swipe card several times

Example: After the memory card swiping function is enabled, when the card is swiped 3 times continuously in the forward direction:

Actual pass status	corresponding value	return command content
1st person passes,turnstile remains open	00 02：left 2 times	09 04 00 01 00 02 CRC_L CRC_H
2st person passes,turnstile remains open	00 01：left 1 times	09 04 00 01 00 01 CRC_L CRC_H

Actual pass status	corresponding value	return command content
3rd person (the last 1 person) passes, Pass completed, door closed normally	00 00：Pass completed	09 04 00 01 00 00 CRC_L CRC_H
If someone does not enter the passage in time Then the passage times out and close door	FF FF ： passage times out	09 04 00 01 FF FF CRC_L CRC_H

7. 3. Pass alarm query

command	send	return
pass status query	01 03 0F 1F 00 01 B6 D8	01 03 02 x1 x2 CRC_L CRC_H
The returned x1 x2 is the data value of the function code, and the corresponding data value is follows: 0: no alarm 1: Entering turnstile without swiping the card in the forward direction 2: stay alarm 3:Reverse intrusion alarm 4: Trailing alarm 5: The master-slave communication is abnormal 6: Entering turnstile without swiping the card in the reverse direction		

Passing alarm active return

Actual pass status	return command content
After swiping the card, normal pass is completed	not return
Entering turnstile without swiping the card in the forward direction	09 05 00 00 00 01 0D 42
stay alarm	09 05 00 00 00 02 4D 43
Reverse intrusion alarm	09 05 00 00 00 03 8C 83
Trailing alarm	09 05 00 00 00 04 CD 41
The master-slave communication is abnormal	09 05 00 00 00 05 0C 81
Entering turnstile without swiping the card in the reverse direction	09 05 00 00 00 06 4C 80

7. 4. turnstile control status query

Read turnstile control status

command	send	return
Main drive pass status query	01 03 07 0C 00 01 CRC_L CRC_H	01 03 02 00 XL CRC_L CRC_H
slave drive pass status query	02 03 07 0C 00 01 CRC_L CRC_H	02 03 02 00 XL CRC_L CRC_H

The returned XL is the data value (hexadecimal) of the function code, and the corresponding data value is follows:

data value	status information	data value	status information
00	The motor is disabling	0A	shut down push
01	Looking for zero	0C	emergency stop
02	opening door forward	0D	Master-slave wait timeout
03	opening doorreverse	0E	countershaftoperation block
04	closing door forward	0F	countershaftshut down block
05	closing doorreverse	11	zero Identification
06	open door in place forward	12	drive alarm
07	open door in place reverse	15	power off open door
08	close door in place	16	power off open door finished
09	run block	17	reset

7. 5. pass status query

command	send	return
pass status query	01 03 0F 20 00 01 86 D4	01 03 02 x1 x2 CRC_L CRC_H

command	send	return
The returned x1 x2 is the data value of the function code, and the corresponding data value is as follow 0: System initialization state 1: idle state 2: Aging state 3: Fire door open state 4: entry swipe card pass state 5: exit swipe card pass state 6: Set the zero state 7: entry free passage state 8: exit free passage state 9: Power off open doorstate 10: The system is normally open		

7. 6. Pass times query

command	send	return
Read entrance pedestrianstatistics	01 03 0F 24 00 02 87 14	01 03 04 X1 X2 X3 X4 CRC_L CRC_H
Read exit pedestrian statistics	01 03 0F 26 00 02 26 D4	01 03 04 X1 X2 X3 X4 CRC_L CRC_H
Clear pedestrian statistics	01 06 0F 13 00 01 BA DB	original data return

Note: X1 X2 is the high -level data of pedestrian statistics, X3 X4 is the low -level data of pedestrian statistics; entrance -pedestrian statistics= entry -high pedestrian number*65536 + entry -low pedestrian number; exit -pedestrian statistics= exit high pedestrian nu mber*65536 + exit low pedestrian number; clear pedestrian statistics: At the same time clear the entrance and exit statistics.