

Changzhou Xionghua Tongtai Automation Equipment Co., Ltd



User's Guide

XHPQ Series

XHPQ series instruction

Feature

1、 Building block system and high expansibility

The control system has 2 parts: Main Server(24 output points,8 input points)and expansion modules(32 output points,16 points,8 points). The maximum is 256 output points.And we accept made to order the control system with more than 256 points.The running fountain control system has the following functions:

- 1)water patterns selection:according to the different parameters, the user can select dozens of water patterns.The special water patterns are customized.
- 2) power off memory and stable,precise setting.
- 3)stop/start

XHPQ expansion controllers are the execute part of the running fountain control system, and they are controlled by the main server. When the main server is at starting state, it can encode the instructions sending by CPU,and through decoding, transfers to control signal and parallel outputs the control load.The main server can control 24 channels load,and expand load by bus(expansion model 32 points,16 points and 8 points).

2、 Advanced technology and high reliability

The control system adopt advanced single chip micryoco(SCM),it combines with complicated control functions and supplies easy operation and extended interface.And its anti-interference far exceeds that of 51 series SCM.

3、 Easy to operation and strong ability with load

With no computer professional knowledge, the user can operate the system with the button on the controller.And the user also can program on the computer with the running fountain software and see the demo on a computer, then upload the programme to the controllers.In addition,with the extendibility,the control system has broken the limit on loads so that it can provide more space for fountain designs.

Terminal

⊕	N	L	NC	COM	X0	X1	X2	X3	COM0	Y0	Y1	COM1	Y2	Y3	COM2	Y4	Y5	Y6	Y7	COM3	Y10	Y11	Y12	Y13
XHPQ-32MR-A1 Made By XiongHua																								
12V	12V	COM	COM	•	COM	X4	X5	X6	X7	COM4	Y14	Y15	Y16	Y17	COM5	Y20	Y21	Y22	Y23	COM6	Y24	Y25	Y26	Y27

XHPQ-32MR-A1 Terminal

⊕	N	L	NC	COM0	Y0	Y1	COM1	Y2	Y3	COM2	Y4	Y5	Y6	Y7	COM3	Y10	Y11	Y12	Y13	COM4	Y14	Y15	Y16	Y17
XHPQ-32ER Made By XiongHua																								
12V	12V	COM	COM	⊕	COM5	Y20	Y21	Y22	Y23	COM6	Y24	Y25	Y26	Y27	COM7	Y30	Y31	Y32	Y33	COM10	Y34	Y35	Y36	Y37

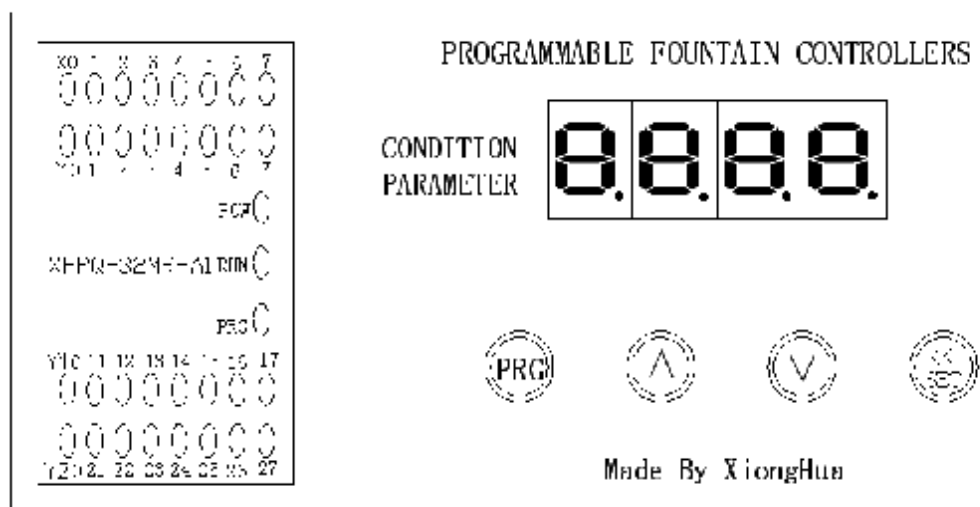
XHPQ-32ER Terminal

COM0	Y0	Y1	COM0	COM1	Y2	Y3	COM1
XHPQ-8ER Y0 Y1 Y2 Y3 PW1 ○ ○ ○ ○ PW2 ○ ○ ○ ○ Y4 Y5 Y6 Y7 Made By XiongHua							
COM2	Y4	Y5	COM2	COM3	Y6	Y7	COM3

XHPQ-8ER Expansion Terminal

Note: The terminal of XHPQ-16ER is similar with that of XHPQ-32ER, and Y20-Y37 have no output.

The panel of XHPQ-32MR-A1



Specification

Model Item	XHPQ-32MR/MT-A1	XHPQ-64ET	XHPQ-32ER/ET	XHPQ-16ER/ET	XHPQ-8ER/ET
Name	Host Controller	64 Points Expansion Module	32Points Expansion Module	16Points Expansion Module	8Points Expansion Module
Rated voltage input	AC220V				
allowable voltage range	AC200V~250V				
rated frequency	50Hz/60Hz				
allowable momentary power failure duration	Machine can continue running if the momentary power failure is within 200 ms.				
Power fuse	250V 2A 5Φ×20mm				
sensor power	DC 12V under 200mA				-
input voltage signal	DC 12V±10%	-	-	-	-
input power signal	7mA/DC 12V	-	-	-	-
input response time	200ms	-	-	-	-
input signal pattern	dry contact or open collector	-	-	-	-
input circuit insulation	Optocoupler Insulation	-	-	-	-
input action	input-LED ON	-	-	-	-
input point	8 points	-	-	-	-
output action	output-LED ON	output-LED ON	output-LED ON	output-LED ON	output-LED ON
output point	24 points	64points	32 points	16 points	8 points
output point type	Relay/ Transistor	transistor	Relay/ Transistor	Relay/ Transistor	Relay/ Transistor

The Software Instruction of XHPQ

Installation instructions

1. First open the installation file,copy the file “XHPQ”into C drive.note don't change the name of the file.



2. Find “setup” and double-click to open the installation interface.

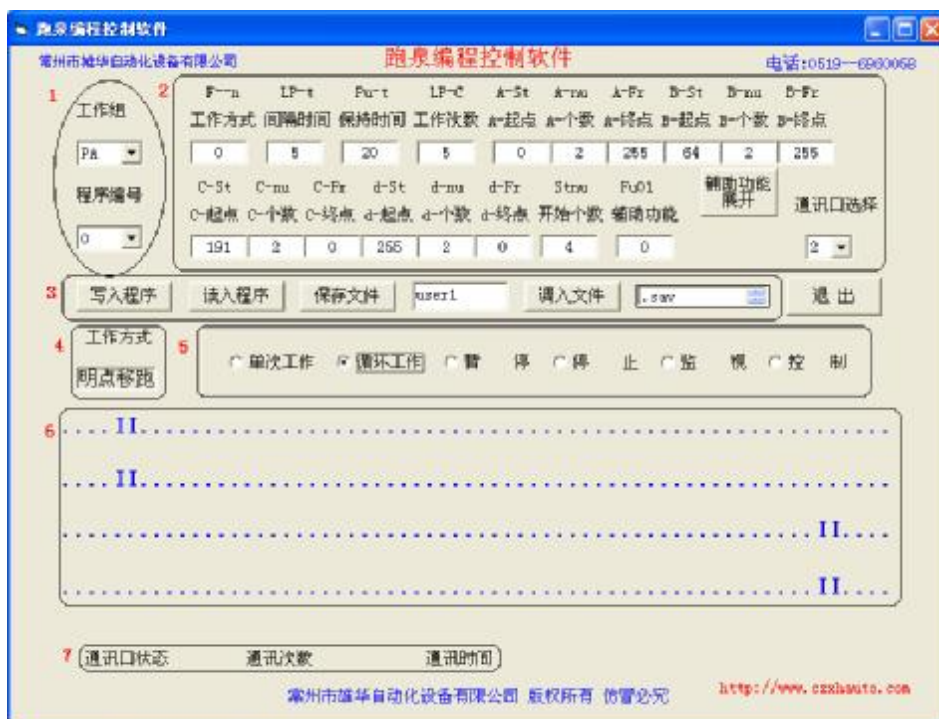
3. When you see the “pqkc installation procednure”interface,click “OK”,click “exit setup”

4. Click “change directory(cd)”to change the installation path,click  to out of “pqkc-select the procedure group”screen ,

Click ‘continue’to start installation.

5. After the installation,just be out of the ‘pqkc installation end’and click ‘OK’

The main operation interface of the software



1-1 main operation interface

Main 7 parts

- 1.work group and program code
- 2.The macro operation commands and the communication port options
- 3.The operation of the file
4. the work mode column
- 5.Test or debugging column
- 6.Output demo version
- 7.Communication status display

Function code	Function name	Setting range	unit	remark
F—n	Operation mode	0-7	no -	
LP-t	Interval time	0-255	0.1s	
Pu-t	Holding time	0-255	0.1s	
LP-C	cycle numbers	0-255	1 time	
A-St	Start position	0-255	position	
A-nu	Numbers/quantity	0-255	number	
A-Fr	Finish position	0-255	position	
b-St	Start position /open points	0-255	position	
b-nu	Quantity,stop quantity	0-255	number	
b-Fr	end position	0-255	position	
C-St	Start position	0-255	position	
C-nu	Quantity,number	0-255	↑ number	
C-Fr	Finish position	0-255	position	
d-St	Starting position	0-255	position	
d-nu	Quantity,number	0-255	number	
d-Fr	Finish position	0-255	position	

2、function description

1) F-n: operation/work mode

“0”= open point move

F—n	LP-t	Pu-t	LP-C	A-St	A-nu	A-Fr	B-St	B-nu	B-Fr
工作方式	间隔时间	保持时间	工作次数	A-起点	A-个数	A-终点	B-起点	B-个数	B-终点
0	5	20	191	0	2	191	64	2	255
C-St	C-nu	C-Fr	d-St	d-nu	d-Fr	Stnu	Fu01	辅助功能 展开	
C-起点	C-个数	C-终点	d-起点	d-个数	d-终点	开始个数	辅助功能	通讯口选择	
191	2	0	255	2	64	1	0	2	

Open point move

At the same time, open A-quantity(A-nu) points,and in a interval time (LP-t), these points move once together. As below figure : At the same time, open 4 groups(A,B,C,D), and 2 opened points move in every time.

“1”= opened point add

F--n	LP-t	Pu-t	LP-C	A-St	A-nu	A-Fr	B-St	B-nu	B-Fr
工作方式	间隔时间	保持时间	工作次数	A-起点	A-个数	A-终点	B-起点	B-个数	B-终点
1	5	20	64	0	1	63	64	1	127
C-St	C-nu	C-Fr	d-St	d-nu	d-Fr	Stnu	Fu01		
C-起点	C-个数	C-终点	d-起点	d-个数	d-终点	开始个数	辅助功能		
191	1	128	255	2	192	1	0		

辅助功能
展开

通讯口选择

2 ▼

Opened point add

Open A-quantity(A-nu) points every time. In every interval time , A-quantity(A-nu) additional points will open,and will hold opened state. As figure 1-3 : Open the 4 groups(A,B,C,D) at the same time, and an extra point will open every time.

“2”= closed point move

F--n	LP-t	Pu-t	LP-C	A-St	A-nu	A-Fr	B-St	B-nu	B-Fr
工作方式	间隔时间	保持时间	工作次数	A-起点	A-个数	A-终点	B-起点	B-个数	B-终点
2	5	20	64	0	3	63	64	3	127
C-St	C-nu	C-Fr	d-St	d-nu	d-Fr	Stnu	Fu01		
C-起点	C-个数	C-终点	d-起点	d-个数	d-终点	开始个数	辅助功能		
191	3	128	255	3	192	1	0		

辅助功能
展开

通讯口选择

2 ▼

Closed point move

Close A-quantity(A-nu) points at the same time. In every interval time,the A-quantity points move once together. As figure 1-4 : Open the 4 groups(A,B,C,D) at the same time, and 3 points will close every move.

“3”= closed point add

F--n	LP-t	Pu-t	LP-C	A-St	A-nu	A-Fr	B-St	B-nu	B-Fr
工作方式	间隔时间	保持时间	工作次数	A-起点	A-个数	A-终点	B-起点	B-个数	B-终点
3	5	20	64	0	2	63	64	2	127
C-St	C-nu	C-Fr	d-St	d-nu	d-Fr	Stnu	Fu01		
C-起点	C-个数	C-终点	d-起点	d-个数	d-终点	开始个数	辅助功能		
191	2	128	255	2	192	1	0		

辅助功能
展开

通讯口选择

2 ▼

Closed point add

Close A-quantity(A-nu) points at the same time.In every interval time, A-quantity additional points will close and hold closed state. As figure 1-5 :Open the 4 groups(A,B,C,D) at the same time, 2 additional points will close every time.

“4”= multicycle operation

Circulate the main program from the first group program.

“5”= single-cycle operation

The main program stops(the corresponding input point will cut-off and recontact the program to work again)

“6”= Multiple Move

F--n	LP-t	Pu-t	LP-C	A-St	A-nu	A-Fr	B-St	B-nu	B-Fr
工作方式	间隔时间	保持时间	工作次数	A-起点	移位数	A-终点	开个数	停止数	闭个数
6	10	20	128	0	1	127	5	1	5
C-St	C-nu	C-Fr	d-St	d-nu	d-Fr	Stnu	Fu01	辅助功能 展开	通讯口选择
C-起点	移位数	C-终点	开个数	停止数	闭个数	开始个数	辅助功能		
255	1	128	5	1	5	0	1		2

Multiple Move

In the work mode, LP-t、Pu-t、LP-C、A-St、A-Fr、Stnu、Fu01 are the same as that in other work mode, but A-nu becomes move bits (the step size every move, the size is integer multiple of opened points and closed points). B-St becomes opened points (the increasing numbers of the output points after every move), B-nu becomes stop quantity (the numbers of the last closed output points after every move), B-Fr becomes closed points ()

“7”= sequence control

sequence control

In the work mode, A-nu and other data are ineffective, and beside the

辅助功能
展开

button, user can see the

功能7
关闭

button. Click the button, it will display Frame4.

In the work mode, start with A-St and other 63 output points (total 64 points) are optional. The position number is the sum of the number in Frame4 and the number of A-St. In the mode, the total holding time = interval time (LP-t) * work quantity (LP-c) + PU-t

2) LP-t: interval time

the function is the interval time between start and stop output,when you click 'the addition function' button ,you will see the addition function list,the first is the time unit, '0' is 0.01s, '1' is 0.1s.

3) PU-t :holding time

The function is that when a work mode is end, the state will maintain until the next group of program start. It 's a delay time, and the time unit is as same as the interval time unit.

4)LP-c :work quantity / move bits

The move quantity from start position to end position

5)A-St: start position

In the work mode(0-6),A-St is the position of the first action point in A team. But in mode 7 ,in the sequence part ,it is the position NO. of the first output point.

6)A-nu: A-quantity

In work mode(0-5),A-nu is the quantity of A team which means the numbers of the action points at the same time. If is '0',that means the work is cancel. In work mode 6, A-nu is move bits. In mode 7, it can not be set.

7)A-Fr: end position

In work mode (0-6),A-Fr is the position NO. of the last action point. In work mode 7 ,it can not be set.

8)b-St: start position

In the work mode(0-5),B-St is the position of the first action point in B team. But in mode 6 ,it is the numbers of the opened points of A team. In work mode 7,it can not be set.

9) b-nu: b-quantity

In work mode(0-5),b-nu is the quantity of B team which means the numbers of the action points at the same time. If is '0',that means the work is cancel. In work mode 6, b-nu is stop quantity of A team. In mode 7, it can not be set.

10)b-Fr: end position

In work mode (0-5),b-Fr is the position NO. of the last action point of b team. In work mode 6 is closed points of A team. In work mode 7 ,it can not be set.

11)C-St: start position

In the work mode(0-5),C-St is the position of the first action point in C team. But in mode 6 ,it is the position of the first action point of B team. In work mode 7,it can not be set.

12)C-nu: C-quantity

In work mode(0-5),C-nu is the quantity of C team which means the numbers of the action points at the same time. If is '0',that means the work is cancel. In work mode 6, C-nu is move bits of B team. In mode 7, it can not be set.

13)C-Fr: end position

In work mode (0-5),C-Fr is the position of the last action point of C team. In work mode 6, it is the position of the last action point of b team. In work mode 7 ,it can not be set.

14)d-St: start position

In the work mode(0-5),d-St is the position of the first action point of d team. But in mode 6 ,it is the numbers of the open points of B team. In work mode 7,it can not be set.

15)d-nu: d-quantity

In work mode(0-5),b-nu is the quantity of d team which means the numbers of the action points at the same time. If is '0',that means the work is cancel. In work mode 6, d-nu is stop

quantity of B team. In mode 7, it can not be set.

16)d-Fr: end position

In work mode (0-5),d-Fr is the position NO. of the last action point of B team. In work mode 6 is closed points of A team. In work mode 7 ,it can not be set.

17)Stnu: start quantity/numbers

In the starting of the program, the maximum points of every team can be open at the same time evert team. In work mode 7 ,it can not be set.

18)Fu01 :additional function

辅助功能
展开

Click the button to change the settings

19)additional function expand

辅助功能 Fu01

PA00	PA01	PA02	PQ03	PA04	PA05	PA06	PA07	PA08
时间单位	台数	泵号	台数	泵号	台数	泵号	台数	泵号
0.01s								
0	30	121	60	122	90	123	0	0

additional function expand

PA00 : time unit, '0'is 0.01s, '1'is 0.1s .PA01: numbers of the out.PA02: pump NO.1,this the position NO. of the open pump. PA03 and PA04,PA05 and PA06,PA07 and PA08. As the figure, a fountain control system with 120 solenoids, when total 30 solenoids are open, the pump NO.121 will be open.

Note :1 In the initialization, the dates are all zero. If user wouldn't like to use the function, we suggest to change all parameters into maximum 255.

Note : if the end position NO. < the start position NO.,the team will move reverse.

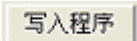
3、Communication port

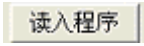
The default communication port is COM1, and the user can choose the communication port

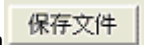
through the  drop-down menu.

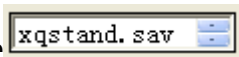
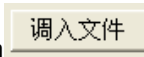
Note : To avoid losing the settings due to the error choice of the port or other wrong operation, we suggest the user save the program you have finished after the port choice or before the transmission of the file.

Control files

1、upload program: after programming,the user can click the button  to write the program into the running fountain controller, the user also can load the file which have been saved in the computer, and write it into the controller.

2、download the program : if you want to read the program from the controller, you can click the button  to read the program from the controller。 and you also can save the program in a folder.

3、file storage : if you want to save the file in the computer or other memorizer , just click the button 。 “C:\xhpq\...”**note: the default path of the file is ‘C:\xhpq\...’.**

4、load file : select the file  you want, click the button  to realize the load of file。

Work mode demo

The user can see the effects of every mode through the demo instead of reading the instruction.

Test or debugging column

The user can choose the debugging status in the part 5, and the status will display in part 6. The user can directly see the effect and not have to uoload the program to the controller.

Communication status display

The user can see the communication status on on the interface.

Changzhou Xionghua Tongtai Automation Equipment Co., Ltd

Address: 13-315 QianShengLanTing, NO. 15, LanLing Road, TianNing District

Tel: 0519-86960058 86998907 86968907

Fax: 0519-86968907-832

Zip Code: 213015

网址: <http://www.czqhauto.com>

E-mail: xqqqqq8@126.com