Changzhou Xionghua Tongtai Automation Equipment Co., Ltd

User's Guide

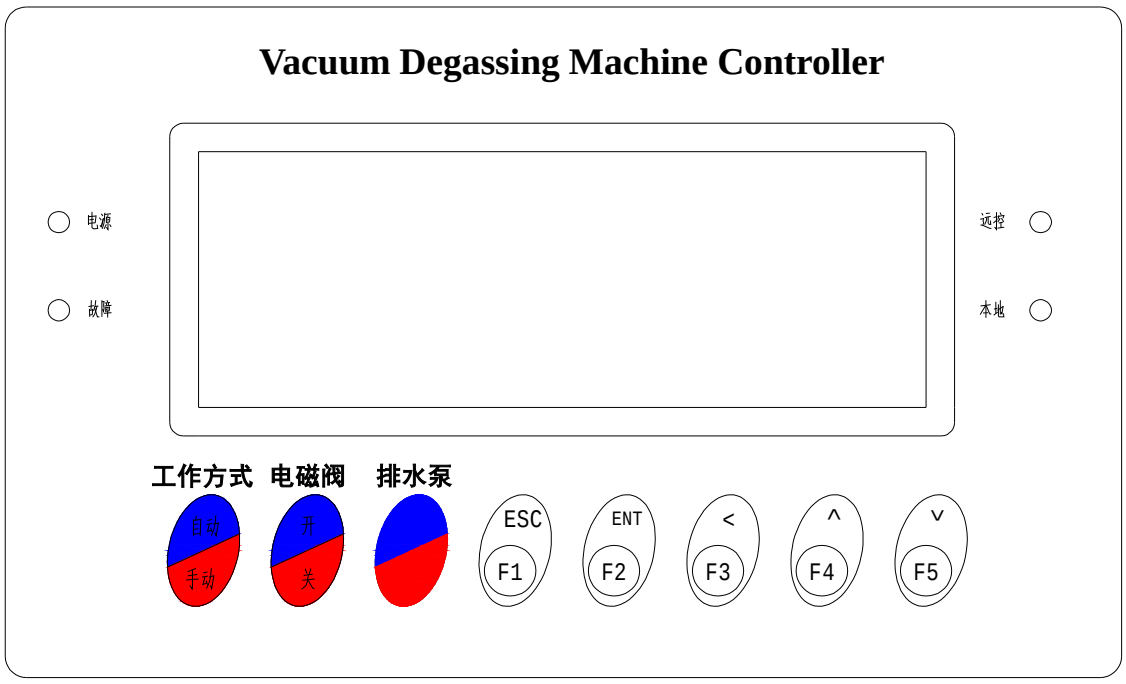
Controller for Vacuum Degassing Machine

XHZK-10

Brief Information

1. It has LCD panel to show the work status, clock and time.
2. After turning on 5s, the screen will show the customer company name and telephone number.
3. The user can operate the equipment on the panel, and the parameters will display on the screen.
4. It has 2 work modes, liquid level control and time control. There are three input terminals of level control signals(high level signal,middle level signal and low level signal) to control the water-inlet solenoid valve and the drainage pump. Except for at the low level signal, the drainage pump will be all in work status at other level signals. The water inlet solenoid valve works at the middle level signal and stops working at the high level signal.
5. When automatically working, it has 2 work modes(timing control and remote control).
6. The error signal input and output are user selectable.

Panel Picture



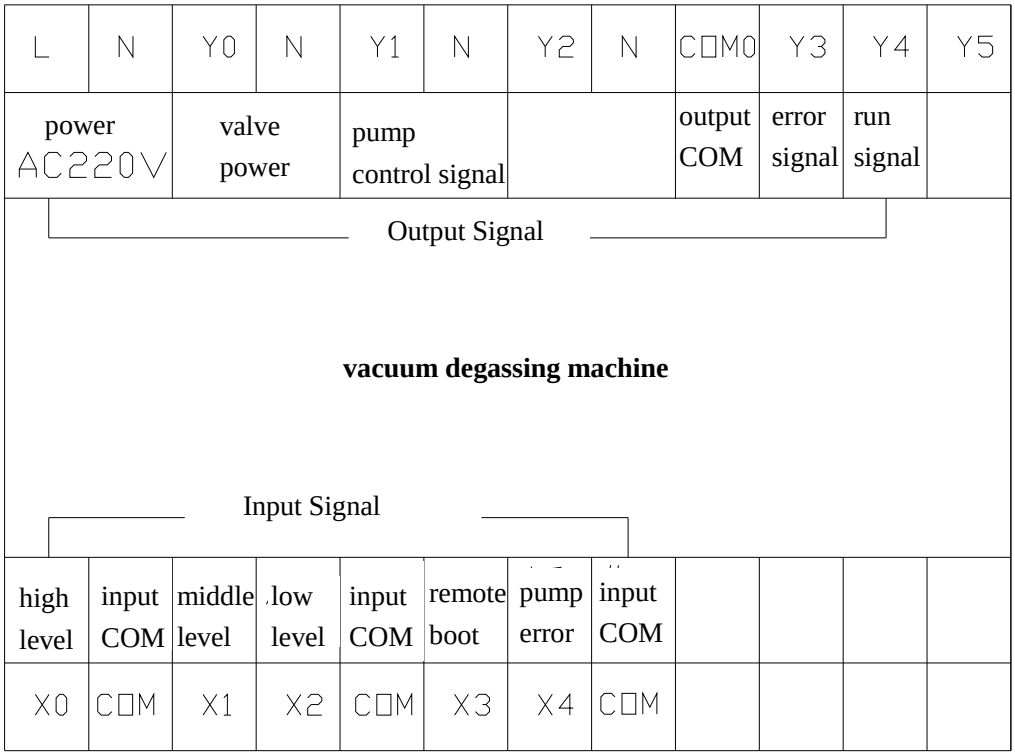
panel

1. Indicator lights: power supply, error, remote control and location control
2. The screen shows the current time and the work state.
3. ‘work mode’: select automatic/manual mode
   Manual mode: directly operate the on/off of the ‘solenoid valve’ and ‘drainage pump’
   Automatic mode: control the equipment according to the set time or remotely control the equipment.
4. ‘ESC’(F1): enter the main menu and date set
5. ‘ENT’(F2):
   In main menu interface: enter the fault inquiry

In date set interface: enter the date modification or exit and save the modified date.

6. ‘《/F3’:
   In main menu interface: enter the information query
   In date set interface： move the cursor left
7. ‘∧/F4’:
   In main menu interface: return to the work status
   In date set interface: up the date
8. ‘V\F5’ : in date set interface, down the date

Terminal Function



Function Set

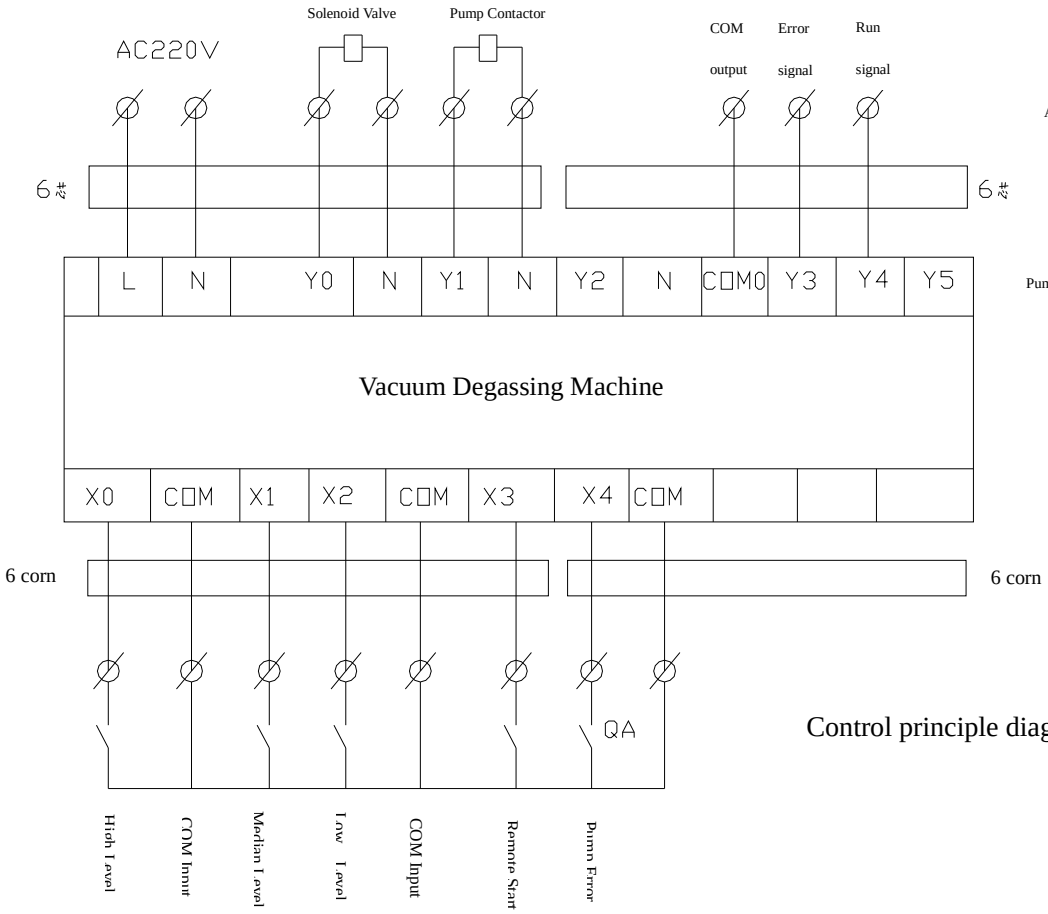
Function Name	Function Code	Range	unit	Factory Set	Remark
Clock Set	00	00000	24-hour	Beijing Time	The 1st digit is useless; The 2nd and 3rd digits are hour; The 4th and 5th digits are minute
Timing Boot 1	01	00000	24-hour	00800	The 1st digit is useless; The 2nd and 3rd digits are hour; The 4th and 5th digits are minute
Timing Shutdown 1	02	0-9999	24-hour	01500	The 1st digit is useless; The 2nd and 3rd digits are hour; The 4th and 5th digits are minute
Timing Boot 2	6	00000	24-hour	00000	The 1st digit is useless; The 2nd and 3rd digits are hour; The 4th and 5th digits are minute

Timing Shutdown 2	7	0-9999	24-hour	00000	The 1st digit is useless; The 2nd and 3rd digits are hour; The 4th and 5th digits are minute
Timing Boot 3	8	00000	24-hour	00000	The 1st digit is useless; The 2nd and 3rd digits are hour; The 4th and 5th digits are minute
Timing Shutdown 3	9	0-9999	24-hour	0000	The 1st digit is useless; The 2nd and 3rd digits are hour; The 4th and 5th digits are minute
Level Input Delay	03	0－99999	0.1s	000030	delay time of high-level middle-level and low-level signal input
Location/Remote Control Selection	04	0-1		00001	00000, location timing work
Error Input Delay	05	0－99999	0.1s	00020	delay time of the error signal input
Auxiliary Function	19				User 1234 Factory 20000
Input ON/OFF Selection	24	00000-000F 3		00000	For the special set, see the addendum
Accumulative Time	21	0-99999	day		Accumulate the running time
Accumulative Time	22	0－99999	hour		Accumulate the running time
Shutdown Time	23	0-99999	day		Set the shutdown time
Area Code of Factory	13	00000	Area Code	00519	The last 4 digits are useful.
The first 4 numbers of the factory phone	14	00000	Area Code	08696	The last 4 digits are useful
The last 4 numbers of the factory phone	15	00000	Area Code	00058	The last 4 digits are useful
The delay time of boot screen	27	0－99999	0.1s	00050	delay 5s
The delay time of off screen	28	0－99999	0.1s	00650	delay 65s
The delay time of shutdown and reset	29	0－99999	0.1s	00050	delay 5s
The delay time of open pump at high level	10	0-99999	0.1s	00030	When the date is 0, the pump will always run at water supply. Except for date ‘0’, the pump will be delay to open after the water supply
The work mode of water supply	11	0-1	_	0	0-level transducer control (open pump at middle level and close pump at high level) 1- time control (open for several seconds and close for several seconds)
Working time	16	0－99999	0.1s	00050	Work for 5s
Shutdown time	17	0－99999	0.1s	00050	Stop for 5s
Communication Address	20	1-255		1	

The table of input/output signal

Item	Input		Output		
	Level signal Remote control	power	solenoid valve	drainage pump	error signal running signal
power specification	DC12V	AC220V（±10%）50Hz/60Hz Machine will continue to work if the momentary power failure is within 200 ms.			
Input power protection	（5Φ×20mm glass pipe fuse）	250V/2A			250V/1A
Input/output signal voltage	—	220V±10%			
Input/output signal current	10mA/DC12V	2A	1A	1A	1A
Input/output response time	200ms	1S	200ms		200ms
Input/output signal pattern	digital value input	--	relay output		relay output
Input/output points	6 points	1 point	1 point	3 points	

Connection diagram



Control principle diagram

Addendum : the table about the ON/OFF set of function 07

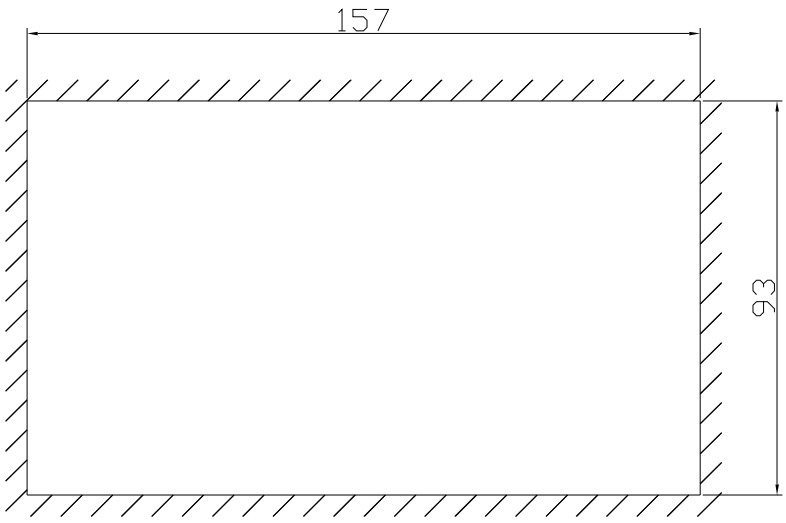
○—normally open ●—normally close

	X0	X1	X2	X3
0X	○	○	○	○
1X	●	○	○	○
2X	○	●	○	○
3X	●	●	○	○
4X	○	○	●	○
5X	●	○	●	○
6X	○	●	●	○
7X	●	●	●	○
8X	○	○	○	●
9X	●	○	○	●
AX	○	●	○	●
BX	●	●	○	●
CX	○	○	●	●
DX	●	○	●	●
EX	○	●	●	●
FX	●	●	●	●

	X4	X5
X0	○	○
X1	●	○
X2	○	●
X3	●	●

Mounting

ABS plastic sealed and embedded installation
External size : 165*102*80
Perforate size:157*93



Perforate