AC310/AC10 constant pressure water supply setting

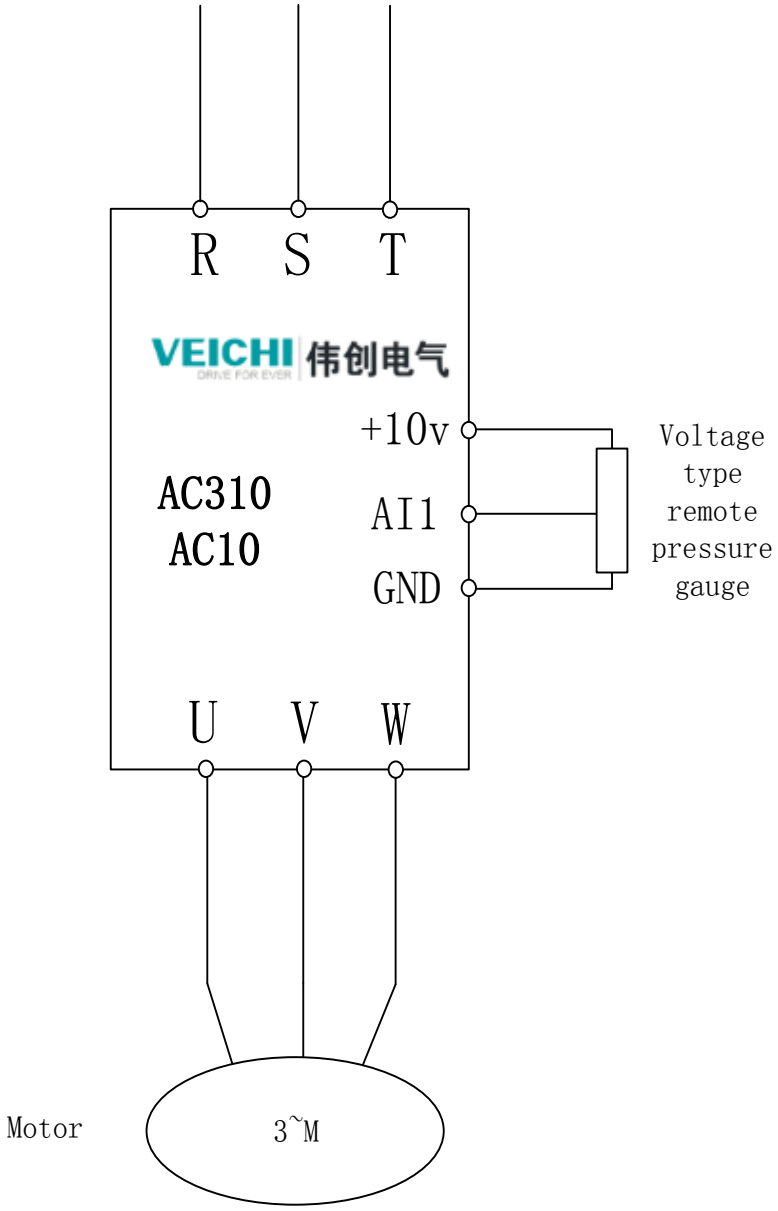
Note：

1、If there is a pressure sensor outside and the inverter is only an actuator, this document is not applicable。

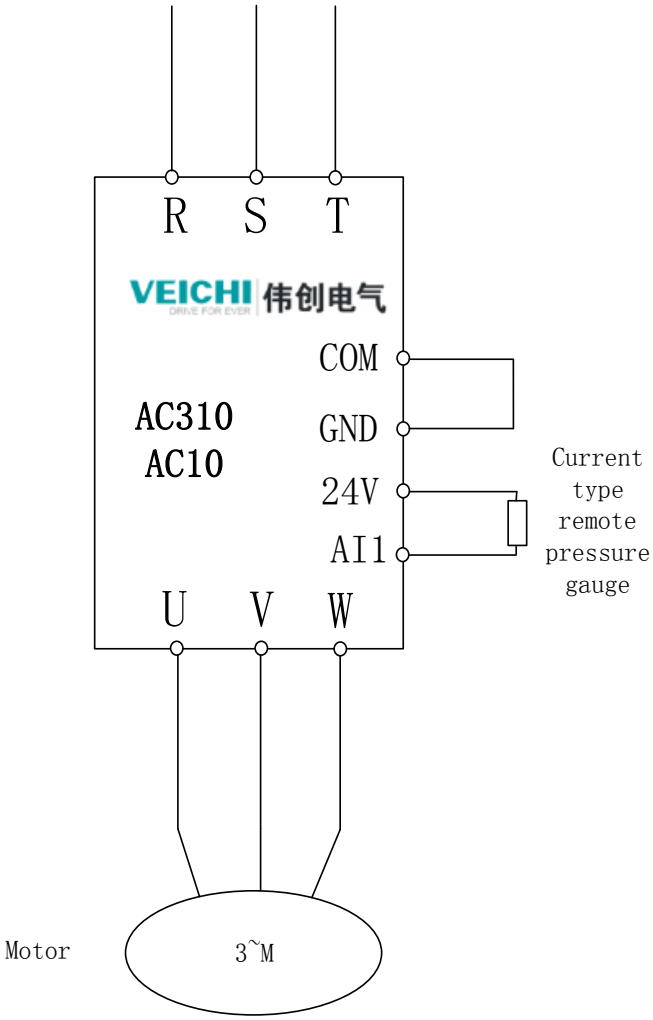
2、If the motor is synchronous motor, please do self-learning, please refer to the self-learning document, AC10 does not support synchronous motor。

3、Remote pressure gauge is divided into voltage type sensor and current type sensor, remember to dial the code when choosing our AI terminal, otherwise it will lead to inaccurate receiving feedback signal。

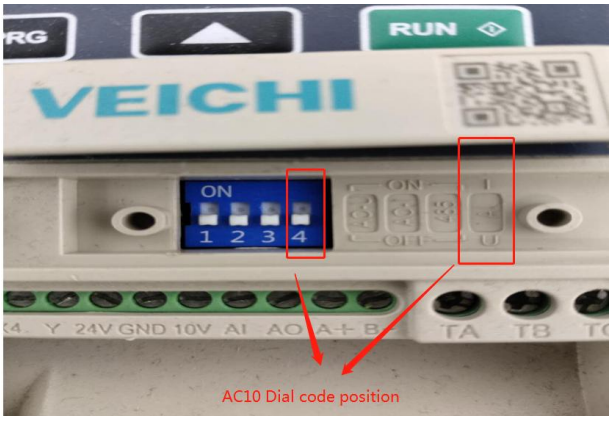
1）Example of voltage type pressure gauge 1.0Mpa(0-10V)

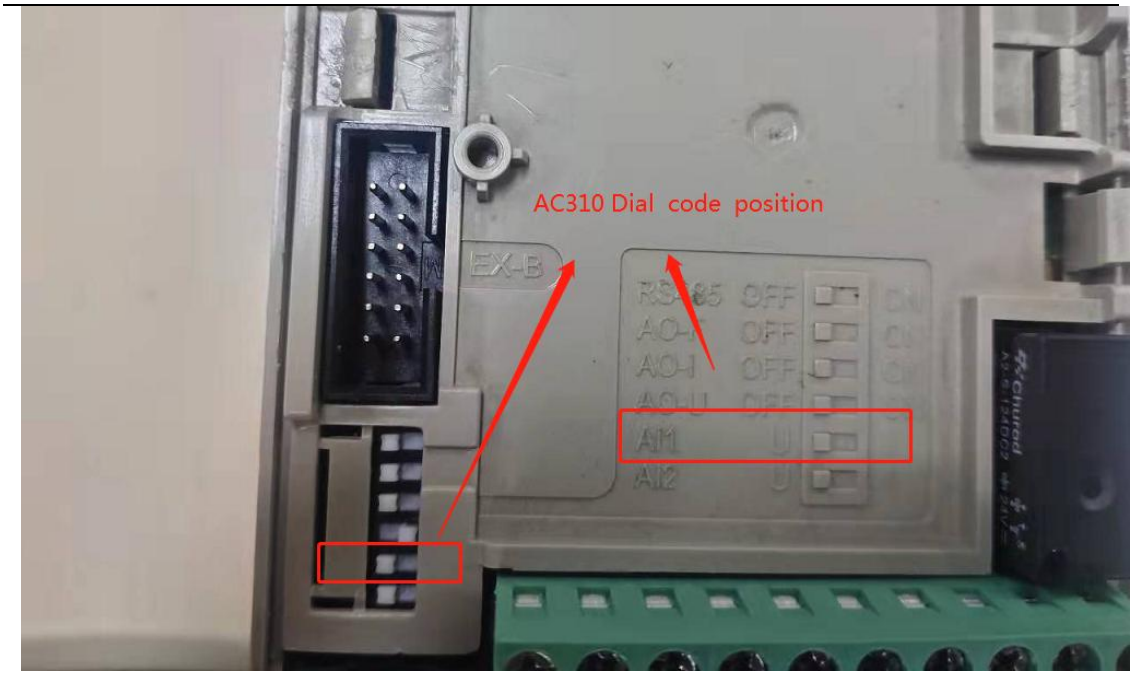


2）Example of current type pressure gauge 1.0Mpa(4-20MA)



If it is a current type remote pressure gauge, remember to set AI1 to the current side, the default is to set to the voltage side.





一、 Parameter Setting：

If it is a new machine commissioning please F00.03=22 Inverter initialization

NO.	Function Name	Set value	Note
F01.01	Run the command for the given channel	0	0.Keyboard Control 1. For terminal control
F01.02	Frequency given main channel	8	PID give control
F13.00	PID Given a signal source	0	PID Keypad number giving
F13.03	PID Feedback signal source	2	2 External Terminal AI1

F13.01	PID Keypad digit giving (target pressure value)	Example: 0.4Mpa pressure required, setting value 40% (set according to actual needs)	This setting is the actual constant pressure value required as a percentage of the total gauge range
F13.29	Constant pressure water supply sleep selection	1	Constant pressure water supply sleep start
F13.30	Sleep frequency	10	When the sleep function of constant pressure water supply is effective, the output frequency of PID adjustment will be lower than the set sleep frequency and enter the sleep state after the sleep

			delay.
F13.31	Sleep Delay	Default	
F13.32	Wake-up deviation	Default	When the PID feedback characteristic is positive, increase the value to quickly exit the hibernation
F13.33	Wake-up delay time	Default	

Check the commissioning process：

1、 After entering the parameters, press and hold PRG for two seconds in the monitoring interface, C00 will appear, press SET to enter C00.00, and press the up arrow to C00.09 to check the PID feedback amount. C00.08 is our monitoring target pressure value, C00.09 is the monitoring feedback pressure value, if the pressure is not enough please increase F13.01 (target pressure input value)

2、 debugging problem 1 : the value of C00.09 is always 0

1） Determine the pressure value of the remote pressure gauge, if there is pressure, you go to monitor C00.16 (analog AI1 input value), if this value

also has the value，It means that your parameters are not set right, go to set the parameters again, if there is no value that you are connected to the wrong line, rewire.

2） Damaged remote pressure gauge

Answers to Frequently Asked Questions：

Problem 1 : The frequency on the panel rises very slowly

When we set the target amount and the greater the difference between the feedback amount, the faster the frequency rise, when our target amount and the feedback amount is very close to the time, indicating that this time has almost reached our set pressure, this time the panel frequency rise is very slow

Problem 2: The water intake is not enough during the peak period

1、Check whether the inverter has been 50 Hz operation, you can also increase to 60 Hz, listen to the motor The sound of the machine, over-frequency operation is quite harmful to the motor, it is recommended to use cautiously。

2、Confirm that the motor speed is correct, our default motor parameters are 1500 rpm, reset the motor parameters

3、Determine whether the water inlet is blocked, you can manually let the inverter reverses a little, the inlet debris flushed away

4、Determine if the head of the pump is too short, change the larger pump and inverter。

5、Determine if it is not into the air, re-put the water out of it, and then pumping

Question 3 : Why does the machine keep running, not sleep, the pressure has reached the set pressure

1、No hibernation parameter set, F13.29=1

2、The machine has been running between 30-50hz, then our default F13.30 is 10HZ, then it will never sleep, this time you need to adjust the frequency of F13.30 to a frequency greater than the stable pressure PID output, so that it will sleep.

Problem 4: Frequent dormant start of inverter

1、Frequency converter as long as a dormant, the pressure immediately went down, resulting in the frequent start, it is recommended that the installation of water pipe pressure-keeping equipment。

2、Damaged remote pressure gauge