# User's Guide

# Self Cleaning Filter Control Box

GLQ-36

## Brief information

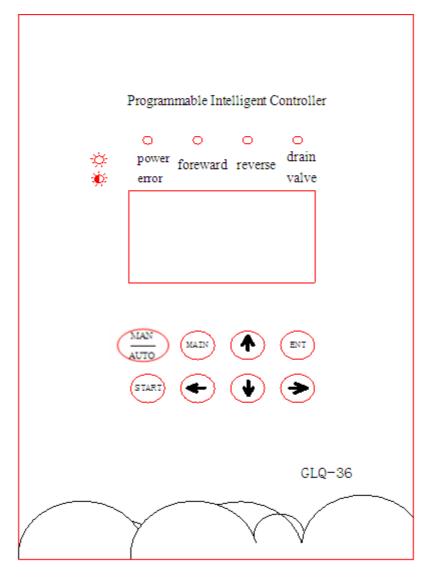
The controller is mainly provided to brush wash filter, electric multi-cylinder type, and back flush filter, and disc type self-cleaning filtration equipment. Today, the automatic filters have been used widely, so it is necessary to save cost, improve the performance as well as improve the competition of the products.

The controller is the control core of the automatic cleaning filter with multiple protection and alarm function and its performance even exceed foreign products. It has multiple control types with high control precision of time and voltage.

The controller adopts rapid CPU chip, power-off storage, built-in watch-dog circuit, and the elements adopt SMT process, easy to operate, and with text LCD(3-inch) operation interface, it can realize remote monitoring control. It can completely replace PLC.

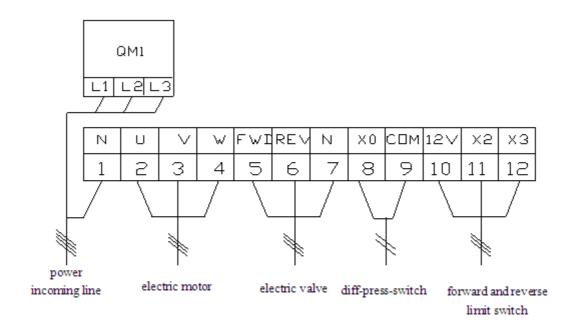
Easy to use, it just need to connect with power, motor, electric valve, pressure switch, and proximity switch. Easy to test, just modifying the date, it will meet the operating condition. With small size, it is easy to fit on the filter.

# Panel picture



- 1- Indicator zone: the power light blinking symbolizes the error status.and the LCD screen displays the error cause.
- 2- LCD zone: all the work statuses are text display
- 3- Buttons zone

### **Terminal connection**



1. 2/T1 4/T2 6/T3 three-phase live line terminal (directly connect to three-phase air switch)

2. N three-phase zero line terminal of 4-line power

3. U V W three-phase electric motor

4. FWD REV N single-phase electric valve 'forward', 'reverse', 'zero line' terminal

5. X0 COM diff-press-switch external signal input terminal

6.12V connect to the power terminal '+' of the access(limit) switch X2 (X3) connect to the conducted terminal of the access(limit) switch COM connect to the power terminal '-' of the access(limit) switch

## **Operation**

1. Application equipment selection

The same control box can control different type self cleaning filter, so the corresponding functions and the work modes must be selected before it is used.

Work mode: F9=0 suction-type filter mode

F9=2 brush wash filter mode (refer to the function code table 2)

2. Parameter set

After selecting work mode, set the work parameter, mainly including the filtering time, washing time( refer to table 2)

#### 3. operation mode

#### A. Manual mode:

Press [Auto/Man], the screen displays 'manual mode', press  $\land \lor \lor$  to move the cursor to the object needed to be controlled.,then press [ENT], the screen display the work status of the object. If the user want to change the status, press [ENT] again

Note: From automatic mode to manual mode, all the objects are at rest status.

#### B. Automatic mode:

Press [Auto/Man], the screen shows 'automatic mode', and cursor buttons are useless. The operating time and the set time are showed on the screen. When it operates in cycle time( filtering time), the time start to counting down, and the cursor blinking means the program running status

#### C. Parameter setting

Press [MAIN] to enter the main menu(following picture). Move the cursor to the position needed to be modified, then press [ENT] to enter the parameter setting status. Move the cursor to the position of function code selection to select the function code.

Main Menu

Parameter Set

Control Menu

Parameter Set

Error Diagnosis

Function Code: 09

Name: work type

Set Value

D.

#### Selection of time unit:

#### Parameter Set

Function Code: 00

Name: filtering time

(cycle time)

Set Value: 10005

unit selection

Time Unit: minute

Function Code: 00

Name: filtering time

(cycle time)

Set Value: 00005

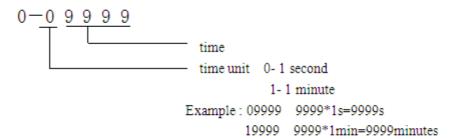
unit selection

Time Unit: second

Left: the set time is 5 minutes

Right: the set time is 5s

Time unit selection:



## E. Error diagnosis

When the error indicator blink, return to the main menu and enter to the help menu showing the detailed error informations. According to the informations, take measures.

# The specification of power

| Item                 | GLQ-36  |  |  |  |
|----------------------|---|--|--|--|
| rated voltage        | AC100V~240V   |  |  |  |
| allowable voltage    | AC85V~250V  |  |  |  |
| range                |   |  |  |  |
| rated frequency      | 50Hz/ 60Hz  |  |  |  |
| allowable momentary  | Machine can continue running if the momentary power     |  |  |  |
| power-off duration   | failure is within 200 ms.                               |  |  |  |
| power fuse           | 250V 3A Φ5×20mm   |  |  |  |
| input signal type    | differential pressure input(dry contact)                |  |  |  |
| input action         | The LCD screen (3-inch) indicates when input connects.  |  |  |  |
| input points         | 4 points (dry contacts)                                 |  |  |  |
| Output action        | The LCD screen indicates when output connects           |  |  |  |
| Output points        | 6 points: control the main motor forward/reverse, drain |  |  |  |
| (controlled objects) | valve forward/reverse and error output                  |  |  |  |

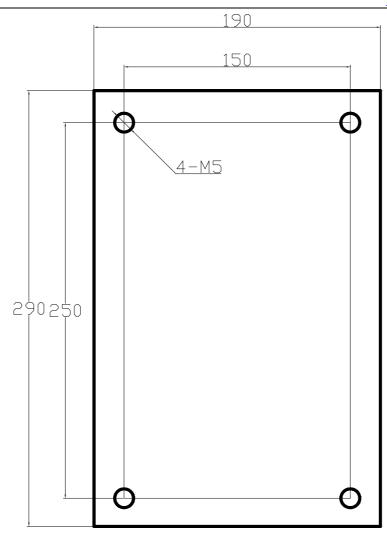
# **Mounting size:**

The box is IP65 plastic water-proof.

The external dimension: Length\*width\*depth=290\*190\*140mm

Perforate dimension: 250\*150

5mm fixed screw



| Function name                        | Function | range            | unit   | Factory | Use   |
|--------------------------------------|----------|------------------|--------|---------|---|
|                                      | code     |                  |        | set     | set   |
| Filtering timing                     | (P0)     | 0- <u>1</u> 9999 | minute | 240     |   |
| Diff-pressure delay                  | (P1)     | 0- <u>1</u> 9999 | S      | 5       |   |
| starting time                        |          |                  |        |         |   |
| Washing time                         | (P2)     | 0- <u>1</u> 9999 | S      | 20      |   |
| Diff-pressure delay<br>alarming time | (P8)     | 0- <u>1</u> 9999 | S      | 300     | When the set is 0, the function is useless. |
| Work type<br>selection               | (P9)     | 0-3              |        | 2       |   |

- P0 cycle time
- P1 diff-pressure delay time
- P2 washing time
- P3 dosing delay time
- P4 dosing time
- P5 holding
- P6 holding
- P8 diff-pressure alarming delay time
- P9 work type selection
  - 0 suction-type filter
  - 1- disc-type filter
  - 2- brush wash filter
  - 3- multi-core filter
  - 4- din-type filter

### **Contact information**

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