Speed Control SC-406S

USER MANUAL

操作使用說明書

Contents

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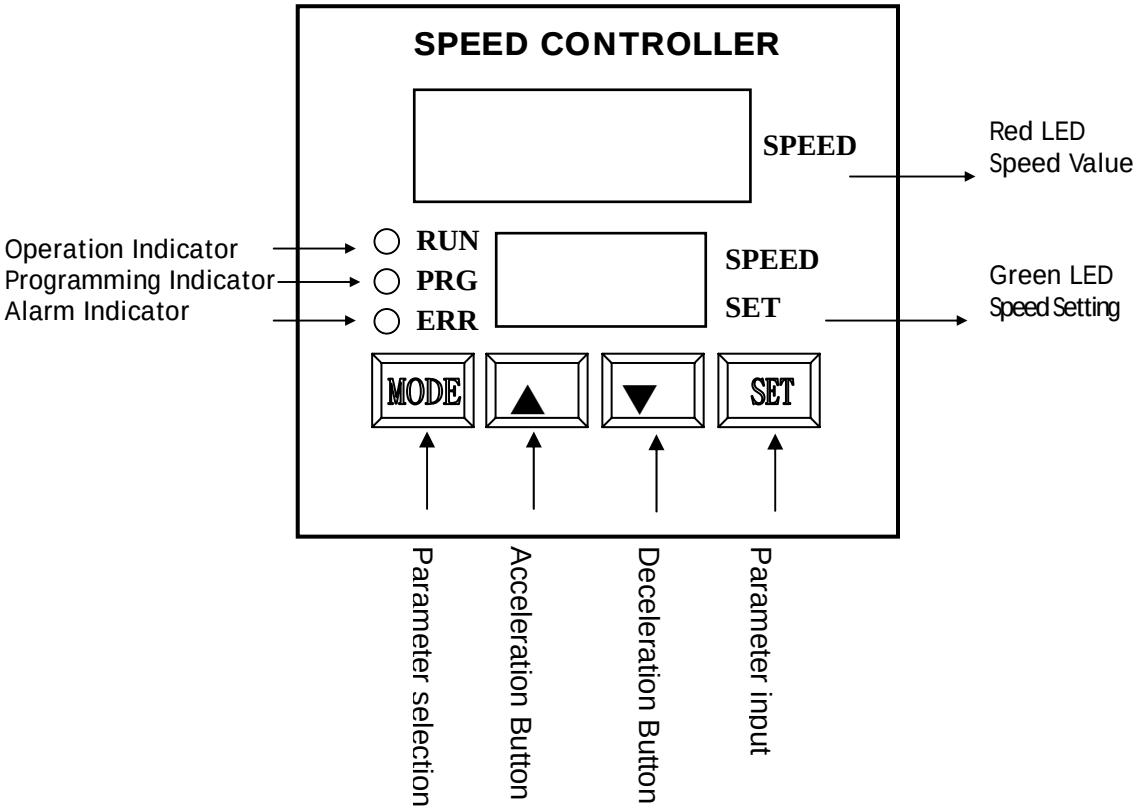
Http://www.ch-sys.com

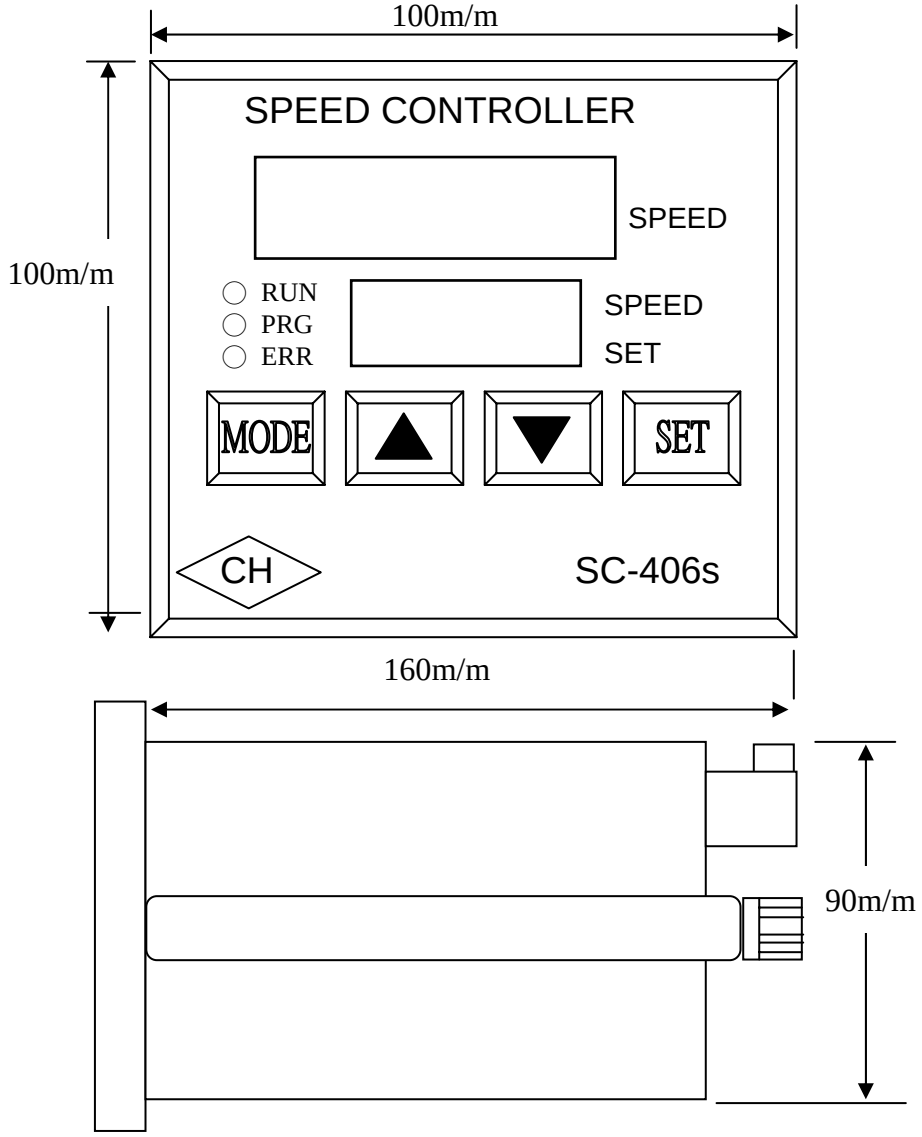
1.Functions of Control Panel



Addition function:

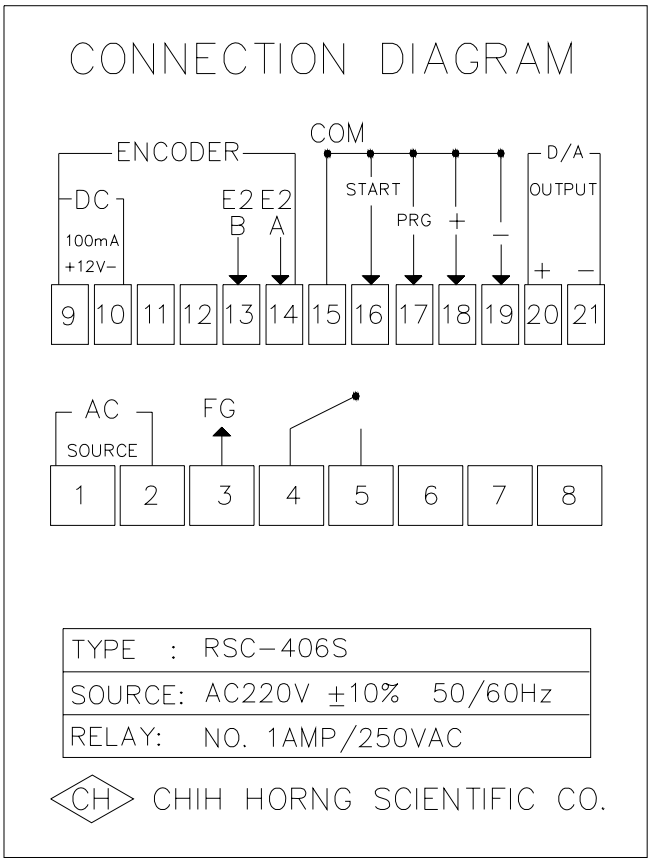
1. Method for modifying setting:
   MODE + ▲ → from low to high (Acceleration)
   MODE + ▼ → from high to low (Deceleration)
2. Method for moving decimal point:
   SET + ▲ or ▼ to move the decimal points from left to right.

2.External Dimension for Installation



Panel opening: 92 x 92 m/m

3.Standard Connection



※ Metal-shielded and isolated cable is necessary.

1. As Terminals 15 & 17 are short-circuited to modify parameters, please open Terminals 15 & 16.
2. After finishing system adjustment, please open Terminals 15 and 17 to avoid parameters modified.
3. D/A and signals wirings don't set near or with power lines.
4. When the distance of signal cable is far from master (motor/inverter and so on), please add isolated interface.

4.Explanations of Terminals

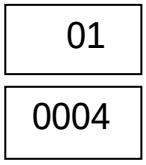
Power source	Terminals 1 & 2 are AC power input. Specification: AC 220V ± 3% 50/60 Hz Terminal 3 is F.G. (earth contact)
E1 and E2 Encoder inputs	Terminals 9 (+) and 10 (-) are power source of encoder, DC 12V±10%, 100mA (MAX) Terminals 13 & 14 are feedback signal from the motor.
Start System	Terminals 15 & 16 are to start system. It is auto-control model when short-circuited of starting terminal.
Parameters Setting	Short-circuited Terminals 15 & 17 for modifying parameters content, detail operation methods, please refer to page 5.
Speed Adjustment	Terminals 15 & 18 are speed acceleration contact A. Terminals 15 & 19 are speed deceleration contact A.
D/A Output	Terminals 20 & 21 are D/A output 0~10V to inverter or DC controller. Please use metal-shielded cable and isolated to power lines. ※Power source (+) and (-) must not be reversed.

5. Parameters Setting Method

Example: Please short-cut terminal 15 & 17 and open terminal 15 & 16

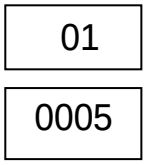
Step 1. Press MODE button

✡ PRG blink

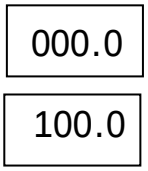


Step 2. Press ▲ or ▼ button to modify value

✡ PRG blink



Step 3. Press SET button to confirm the value modification finished.



Accomplishing setting, system will return to normal display operation after a few seconds. If you need to modify other parameters, please repeat the procedure above. Press MODE button on and on, the red LED will display parameters 01~07 in a circle.

6.Function: Parameters Table

Parameter No.	Function	Range	Factory Setting	User Setting
01	406s function selection	0-31	8	
02	Response time	1-99	30	
03	Time adjust for speed up and down	1-99	30	
04	Ratio “K” for main speed	100-9999	1000	
05	Linear speed “K”	100-9999	1000	
06	Upper limit of speed	0-9999	1000	
07	＊Additional (Voltage per start)	0-255	30	

＊If the setting is 30, the result is 3 second.
Higher of the value of parameter 02 and 03 results slower response time.
Parameter 04, 05 and 06 have to modify depending on actual situation.

7.Parameter 01 Programming

The indicator of【◆】: 406S equipped functions

Parameter No.	Range	Position Tracing	V/R Input	Auto-signal Feedback for E1/E2	Recovery (memory) Function	Upper LCD Display Content	
						Linear Speed	Signal-tracking Indicator
01	*0000*				◆	◆	
	0001				◆		◆
	0002		◆		◆	◆	
	0003		◆		◆		◆
	0004	◆			◆	◆	
	0005	◆			◆		◆
	0006	◆	◆		◆	◆	
	0007	◆	◆		◆		◆
	0008			◆	◆	◆	
	0009			◆	◆		◆
	0010		◆	◆	◆	◆	
	0011		◆	◆	◆		◆
	0012	◆		◆	◆	◆	
	0013	◆		◆	◆		◆
	0014	◆	◆	◆	◆	◆	
	0015	◆	◆	◆	◆		◆
	0016					◆	
	0017						◆
	0018		◆			◆	
	0019		◆				◆
	0020	◆				◆	
	0021	◆					◆
	0022	◆	◆			◆	
	0023	◆	◆				◆
	0024			◆		◆	
	0025			◆			◆
	0026		◆	◆		◆	
	0027		◆	◆			◆
	0028	◆		◆		◆	
	0029	◆		◆			◆
	0030	◆	◆	◆		◆	
	0031	◆	◆	◆			◆

8.Parameters Explanation

Pr.01	406S Function selection

Setting range : 0 ~ 31
Factory setting : 8
Description : None

Pr.02	Response time

Setting range : 0 ~ 99
Factory setting : 30
Description : As the setting value is low (high), voltage compensation speed will be fast (slow) and response time quickly (slowly).

Pr.03	Accelerating and decelerating time adjust

Setting range : 1 ~ 99
Factory setting : 30
Description : The set is for time from 0 to target time. Small value means response quickly; on the contrary, high value means slow response time because long time processed.

Pr.04	Main speed “K” value

Setting range : 100 ~ 9999
Factory setting : 1000
Description : Steps:

1. Set the speed you want in Pr.04.
2. Adjust panel display to be 1000.
3. Start processing, then detect actual (linear) speed.
4. Adjust panel display to make actual (linear) speed equal to Pr04.
5. Change Pr04 to be the value of panel display.

8.Parameters Explanation

Pr.05	Main linear speed “K” value

Setting range : 100 ~ 9999
Factory setting : 1000
Description : After finishing the set of Pr.04, then start to process and check whether the indicated value is the same as actual speed.
If there is different, you can modify both values (indicator and actual speed) to be equal by buttons of MODE+▲ or MODE-▼.

Pr.06	Upper limit of speed

Setting range : 100 ~ 9999
Factory setting : 1000
Description : The setting of upper limit of speed.

Pr.07	Additional

Setting range : 0 ~ 255
Factory setting : 30
Description : During executing function, urgent accelerating time unit is 0.1 second/
For example：
Pr07=30, actual executed time is 3 second (30 x 0.1).