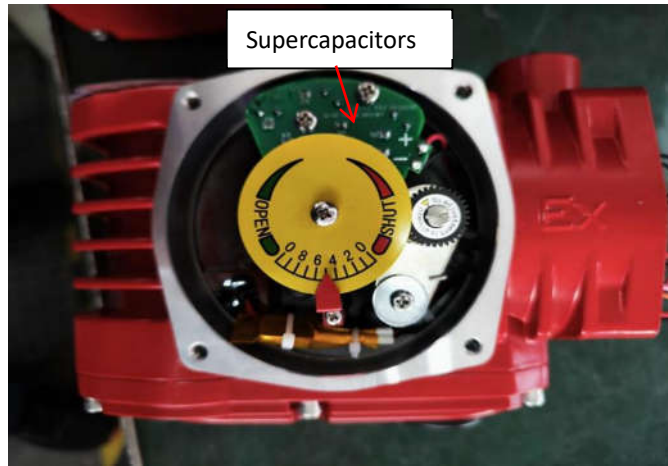


Warning:

※The charging voltage of FSR is not less than 23VDC and not more than 28VDC.Suggested charging voltage is 24VDC~26VDC.

1. FSR unit installation

1.1 First Use



1.2 Connect the Supercapacitors to the control board

2. Final position setting

2.1 Dialing instructions

Diagram(SA or SB)			
Value	1	2	3

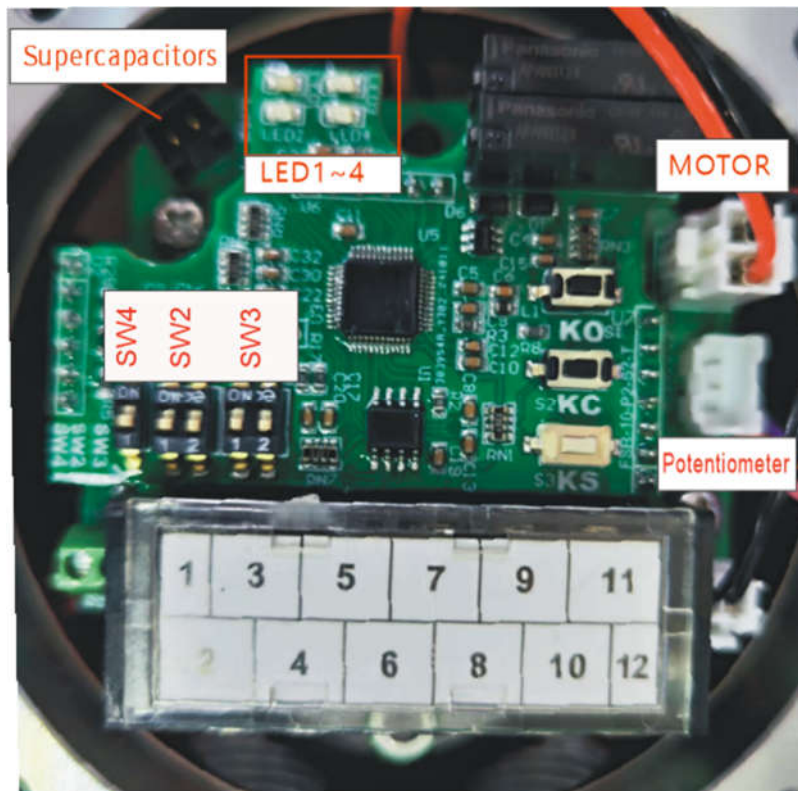
2.2 Setting

When external power is off , the actuator fail position can be set as below.

	SET-1:back to full open position.	SET-2: keep current position	SET-3: back to full close position
A	1	1	1
B	1	2	3
After power off	Fail Open	Fail Last	Fail Close

※When A is 2, the change in SB is effective

3. Introduction of Control Board Functions.



DC24V POWER SUPPLY		INPUT 4~20mA		OUTPUT 4~20mA	
-	+	-	+	-	+
1	3	5	7	9	11
2	4	6	8	10	12
COM OPEN CLOSE			COM OPEN CLOSE		
ON/OFF INPUT			ON/OFF OUTPUT		

① Button:

- KO: In set condition (the select switch SA(SW2) = 2), actuator will operate in opening direction when the button is pressed and the motor will stop when the button is released. When the actuator is in the Full-open position, Press buttons KS and KO at the same time to calibrate.
- KC: In set condition (the select switch SA(SW2) = 2), actuator will operate in closing direction when the button is pressed and the motor will stop when the button is released. When the actuator is in the Full-close position, Press buttons KS and KC at the same time to calibrate.
- KS: Used in conjunction, with the KC or KO to calibrate the open and close positions.

② Select switch:

- SA(SW2): This is how you if 4ma and 20ma rotates the actuator clockwise or counterclockwise. Select the modes for positive interaction and counteractive

of input signal and set state, the corresponding function with the direction of arrow is (SA points to 1 at ex-factory):

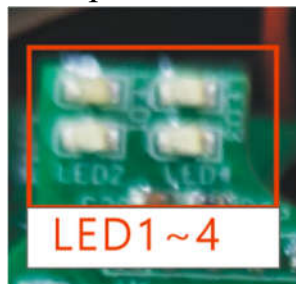
1—positive interaction 2—set state 3—counteractive

●SB(SW3): Select the process mode when input signal lose efficacy, the corresponding function with the direction of arrow is (SA points to 2 at ex-factory):

1—valve is in Full-open position 2—valve is in normal position

3— valve is in Full-close position

③Indicator lamp:



●LED1: Green indicator lamp shows power, the power indicator lamp lights up when connecting terminals DC24- and DC24V+ of control board with power;

●LED2: Red indicator lamp shows malfunction of input signal failure, this lamp lights up when input signal lose efficacy.

●LED3: Red indicator lamp shows malfunction of position inspection circuit, this lamp lights up when the lead of opening potentiometer is open or short or damaged.

●LED4: Red indicator lamp shows malfunction of stickiness, this lamp lights up when actuator is stucked.

FSR Operation Manual for ON-OFF electric actuator

1. Selection switch(SW4) setting

ON-OFF mode:Select the switch at the position in the diagram.



2. Function Description of Wiring Terminals

DC24V POWER SUPPLY		INPUT 4~20mA		OUTPUT 4~20mA	
-	+	-	+	-	+
1	3	5	7	9	11
2	4	6	8	10	12
COM		OPEN	CLOSE	COM	OPEN
ON/OFF INPUT		ON/OFF OUTPUT			

2.1 OUTPUT:

2.1.1 Terminal com is common terminal as passive contact.

2.1.2 When it is at “close” operation position,terminal close will output the “full-close signal”.At the same time,terminal com and terminal close are connected.

2.1.3 When it is at “open” operation position,terminal open will output the “full-open signal”.At the same time,terminal com and terminal open are connected.

2.2 INPUT:

External control of opening and closing of actuator.

2.2.1 The connection between terminal com and terminal close is for the operation of “close”.

2.2.2 The connection between terminal com and terminal open is for the operation

of “open”.

FSR Operation Manual for Modulating electric actuator

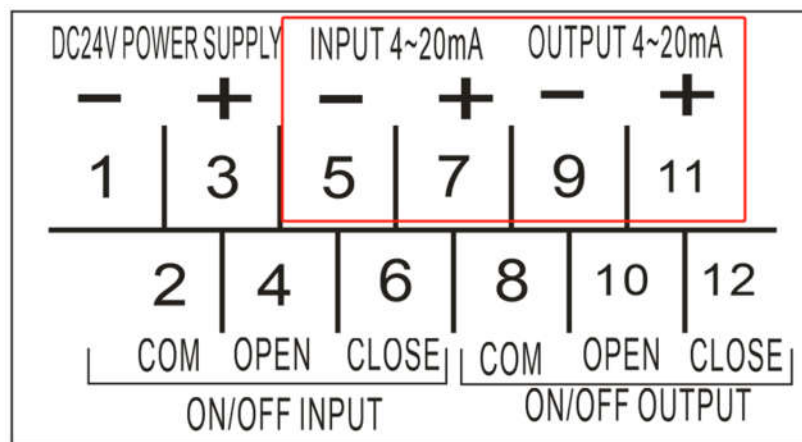
1. Selection switch(SW4) setting

Modulating mode: Select the switch at the position in th diagram.



2. INPUT and OUTPUT

After the external DC24V power supply is connected, input 4-20mA signal to control the operation of the electric actuator until specified. Simultaneously, it will output 4~20mA position feedback signal. Wiring terminals as shown in the diagram.



-----**END**-----