# This is for the Generation 1 models with external XP Jbox Warning:

**X** 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

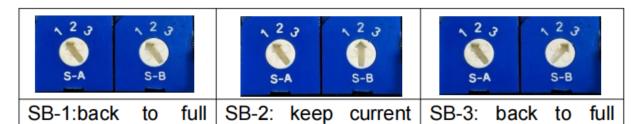
#### 1.1 First Use

Users only need to open the FSR end cover, as shown in the figure.



Hexagonal

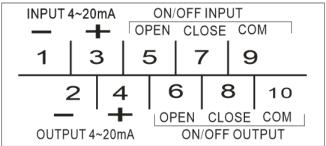
- % First loosen the hexagonal socket screw (M4X4), then open the cover.
- 1.2 Connect the battery pack to the control board
  - 2. Final position setting
- 2.1 When external power is off, the actuator fail position can be set as below.

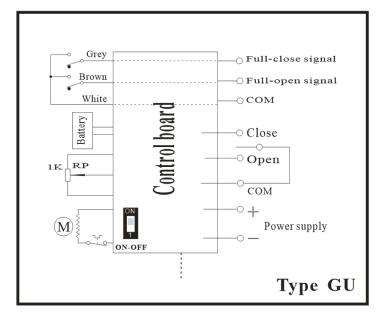


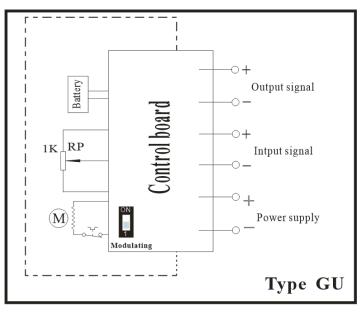
# **%When SA is 2, the change in SB is effective**

## 3. Introduction of Control Board Functions.









# (1)Button:

- •KO: In set condition (the select switch SA = 2), actuator will operate in opening direction when the button is pressed and the motor will stop when the button is released. The actuator is in a demarcating Full-open position when buttons KS and KO are pressed at the same time.
- •KC: In set condition (the select switch SA = 2), actuator will operate in closing direction when the button is pressed and the motor will stop when the button is released. The actuator is in a demarcating Full-close position when buttons KS and KC are pressed at the same time.
- •KS: In set condition, actuator will perform specific function when the KS cooperates with KO and KS.
- (2) Select switch:
- •SA: Select the modes for positive interaction and counteractive of input signal and set state, the corresponding function with the direction of arrow is (A points to 1 at ex-factory):
- 1—positive interaction 2—set state 3—counteractive
- •SB: Select the process mode when input signal lose

efficacy, the corresponding function with the direction of arrow is (A 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
- (3) Indicator 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 sticked.

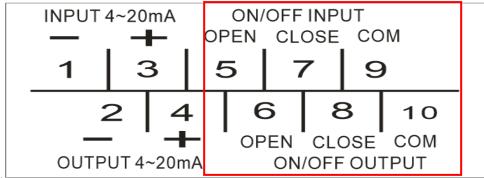
# FSR Operation Manual for ON-OFF electric actuator

1. Selection switch setting

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

diagram.

#### 2. Function Description of Wiring Terminals



#### 2.1 **UUPUI**:

- 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"

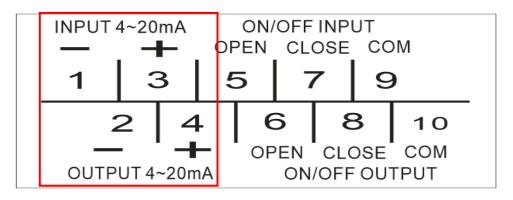
FSR Operation Manual for Modulating electric actuator

## 1. Selection switch setting

Modulating mode: Select the switch at the position in the 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