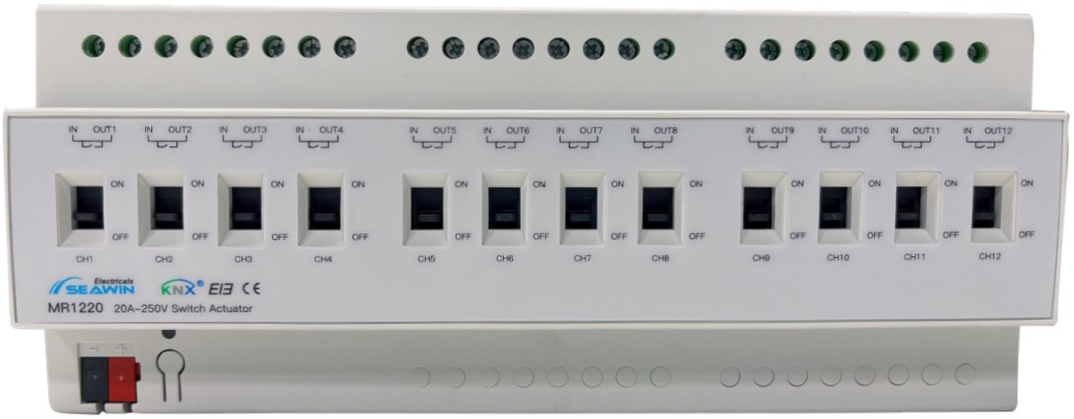
20A Series Switching Actuator

Manual -Ver2.1

MR0420

MR0820

MR1220



Content

1 Overview

This manual provides you with detailed technical information for 20A series switching actuator module, including installation and programming details, and explains how to use the 20A series switching actuator module based on practical examples. To facilitate installation to the distribution box, the 20A series switching actuator module is designed as a modular installation device capable of mounting on a 35mm DIN rail.

The 20A series switching actuator modules are used to control switch loads, such as lighting, etc. and with magnetic holding function

The system is installed with other loads through the EIB/ KNX bus.

Set up and operate the whole system using engineering design tool software ETS.

2 Product and function overview

The maximum load current output by each 20A series switch execution module is 20A, including 4, 8, and 12 intelligent relays. Each circuit can independently control the switch of 3300W lamps. The above is only for resistive load lamps. In actual use, press the power of 80 % to drive a resistive load would be more appropriate. For inductive and capacitive loads, especially when multiple lamps are connected in parallel, the load that can be carried will be reduced. Although the power remains unchanged, the instantaneous inrush current will increase, which will easily melt the relay contacts. Loads and capacitive loads generally use 1/5 or 1/6 of the maximum current, and even some inferior LED lamp loads need to use 1/8 of the maximum current.

Relay with manual override dial with magnetic hold function. 4-way 20A switch execution module has 2-way dry contact input interface, 8/12-way 20A switch execution module has 4-way dry contact input interface, dry contact (I/O) wiring communication distance: less than 10m.

Function description:

(1) Independent control of 4/8/12 loop lights/loads;

(2) With manual forced cut dial;

(3) With relay magnetic hold function;

(4) With delay on/off function;

(5) It has the functions of timing off and cycle switch;

(6) It has the function of on-site preservation and restoration;

(7) It has the function of status value query and reply;

(8) It has the function of selecting the switch state of the relay after the bus is powered off and the voltage is restored;

(9) With scene combination control and scene learning functions;

(10) It has the function of logical operation;

(11) With real-time status detection function;

(12) With interlock group function and channel lock function;

(13) It has the function of recording the number of relay operations;

(14) It has an I/O dry contact input interface, which can input control commands such as switches, curtains, dimming, scenes, etc., and can directly link fire emergency lighting;

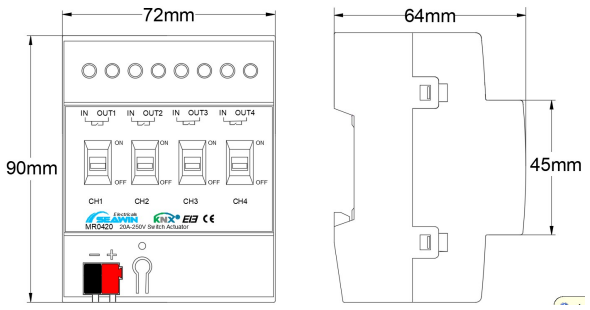
3 Detailed parameters

Operating voltage, EIB	21-30 VDC, obtained via KNX bus
Quiescent current, EIB	≤ 12mA
Charge current, EIB	≤ 20mA
Static power consumption, EIB	≤360mW
Power loss	≤ 0.6W
main output	4/8/12 circuit design, each circuit 250VAC (50/60Hz), Max 20A (resistive load)
Dimensions (LxWxH)	72mmx90mmx64mm (4 channels), 145mm x 90mm x 64mm (8 channels/12 channels), 218mm x 90mm x 64mm (12 channels)
Weight(approx.)	0.3KG (4 channels), 0.6KG (8 channels), 0.65KG (12 channels)
shell material	PA66
Installation method	DIN rail mounting
Operating temperature	-5°C- 45°C
Storage temperature	- 20°C- 70°C

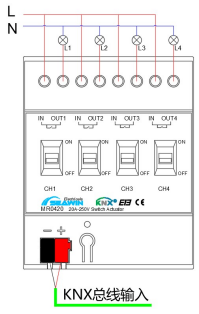
4 Dimensional drawing and wiring diagrams

4.1 MR1220

Dimensional drawing



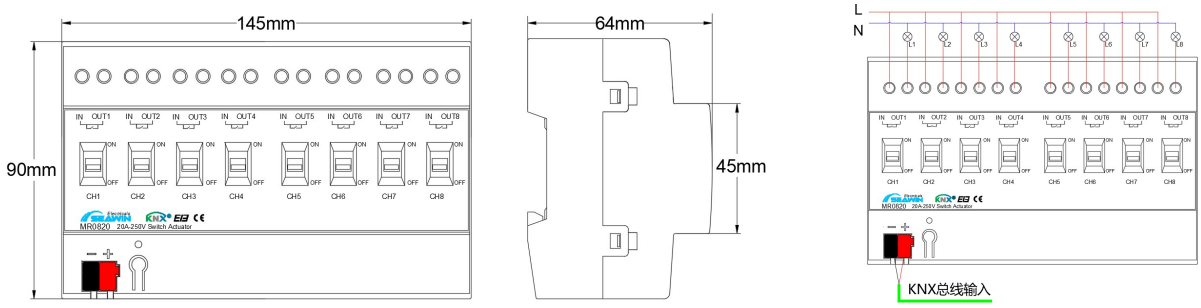
Wiring diagram



4.2 MR1280

Dimensional drawing

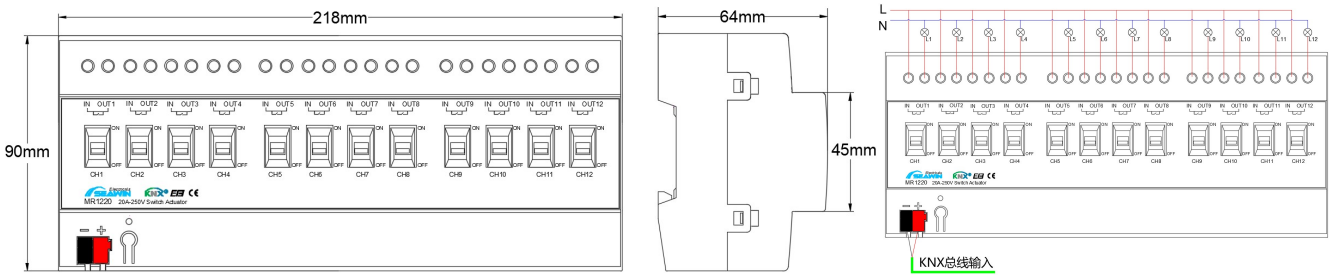
wiring diagram



4.3 MR1240

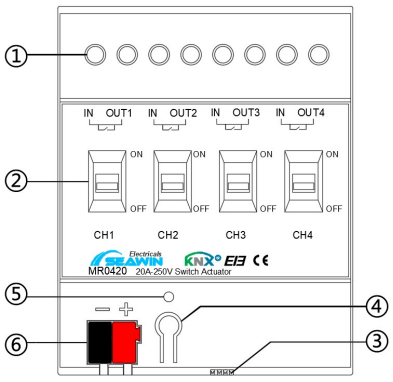
Dimensional drawing

Wiring diagram



5 Product operation instruction

5.1 MR1220



①Description: Relay output terminals: adopt one-in-one-out method, and the aperture can be connected to φ4 wires;

②Description: Each circuit controls the dial, when the relay dial is turned on, it is turned on, and when the relay dial is turned off, it is turned off;

③Description: dry contact input terminal;

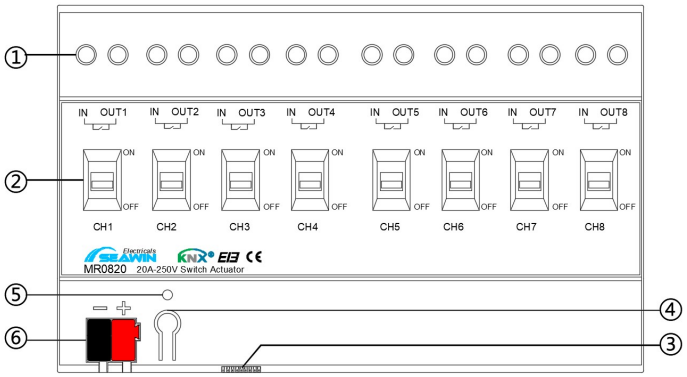
④Description: Programming button, short press the button to enter programming mode;

⑤Description: Programming indicator, when the indicator is red, the device is in programming state, and when the

device is programmed or working normally, the indicator will flash blue;

⑥Description: KNX terminal, KNX bus access, the red wire is connected to "+", the black wire is connected to "-";

5.2 MR0820



①Description: Relay output terminals: adopt one-in-one-out method, and the aperture can be connected to φ4 wires;

②Description: Each circuit controls the dial, when the relay dial is turned on, it is turned on, and when the relay dial is turned off, it is turned off;

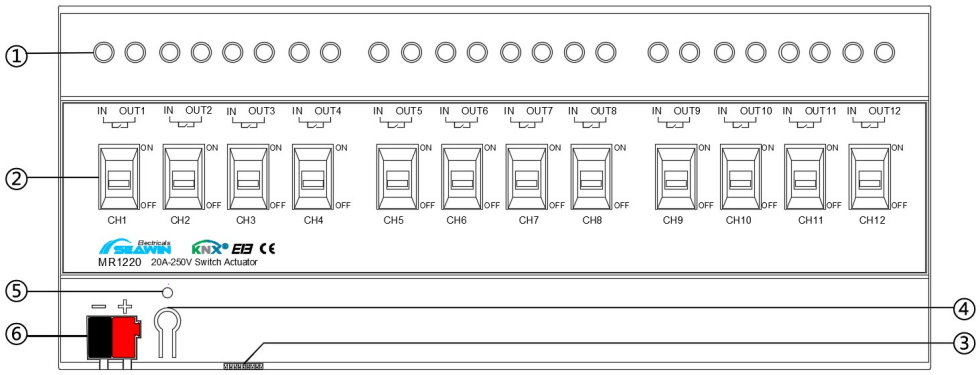
③Description: dry contact input terminal;

④Description: Programming button, short press the button to enter programming mode;

⑤Description: Programming indicator, when the indicator is red, the device is in programming state, and when the device is programmed or working normally, the indicator will flash blue;

⑥Description: KNX terminal, KNX bus access, the red wire is connected to "+", the black wire is connected to "-";

5.3 MR0420



①Description: Relay output terminals: adopt one-in-one-out method, and the aperture can be connected to φ4 wires;

②Description: Each circuit controls the dial, when the relay dial is turned on, it is turned on, and when the relay dial is turned off, it is turned off;

③Description: dry contact input terminal;

④Description: Programming button, short press the button to enter programming mode;

⑤Explanation: programming indicator light, when the indicator light is red, the device is in programming state, and when the device is programmed or working normally, the indicator light will flash blue;

⑥Description: KNX terminal, KNX bus access, the red wire is connected to "+", the black wire is connected to "-";

6 Parameter setting and communication object description

6.1 Setting of switch function parameters

The following uses ETS5 as an example. Set parameters in ETS5. Note: In the following description, Channel X or X represents the output of the corresponding channel.

1) Open the 20A series switching actuator module parameter setting interface in ETS5, as shown in Figure 6.1.1. The parameter "Channel X" indicates the output of the corresponding channel. The parameter "Field control" indicates the field control function. When the "off" command is sent, the relay status of each channel is saved and closed. When the "on" command is sent, the last saved relay status is called. (Note: The "off" command cannot be sent twice in a row, because the current state is saved when the "off" command is sent for the first time. However, when the "off" command is sent the second time, the All-off state after the first "off" command is saved, covering the state of the first saved field).

Options: Disable, Enable

If it is a 4-way switch execution module, select "Enabled" in Channel 1—Channel 4, select "Disabled" for the other 20 items; if it is an 8-way switch execution module, select "Enabled" for Channel 1—Channel 8, and select "Enabled" for the other 16 items Select "Disabled"; if it is a 12-way switch execution module, select "Enabled" for Channel 1—Channel 12, and select "Disabled" for the other 12 items; In addition, for 20A series, 4-way switch execution module has 2-way dry contact input point interface , 8-way/12-way switch execution module with 4 dry contact input interfaces (take the 8-way switch execution module as an example here)

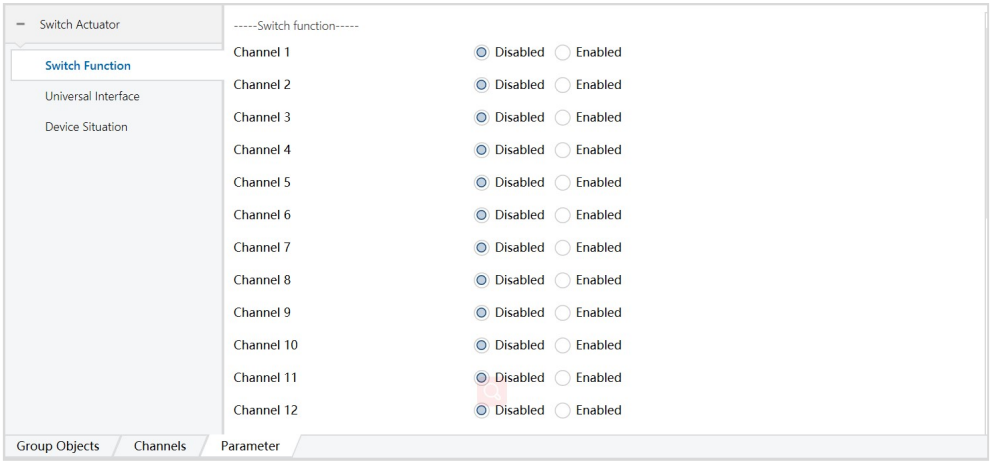


Figure 6.1.1

2) After setting, the interface is shown in Figure 6.1.2, and 8 options in the red block as shown in figure.

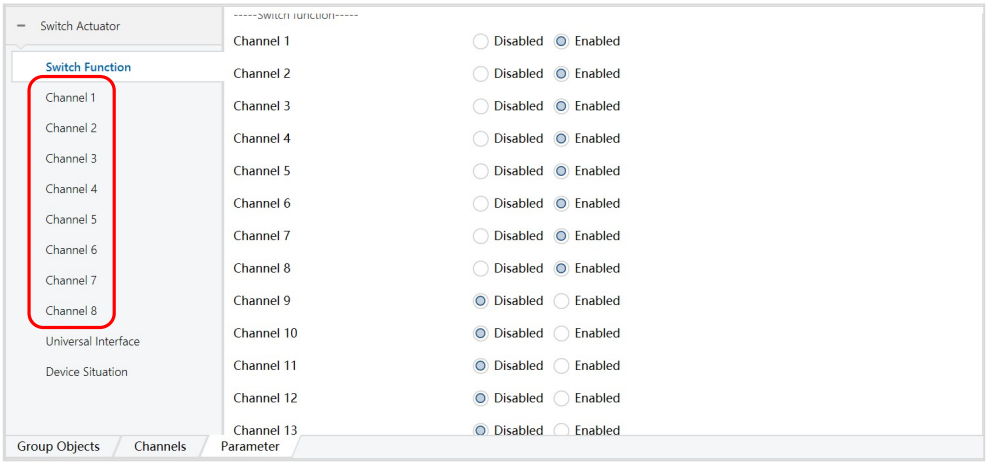


Figure 6.1.2

3) Click the options in the red block above to set the parameters of each circuit. Take Channel 1 as an example, as shown in figure 6.1.3

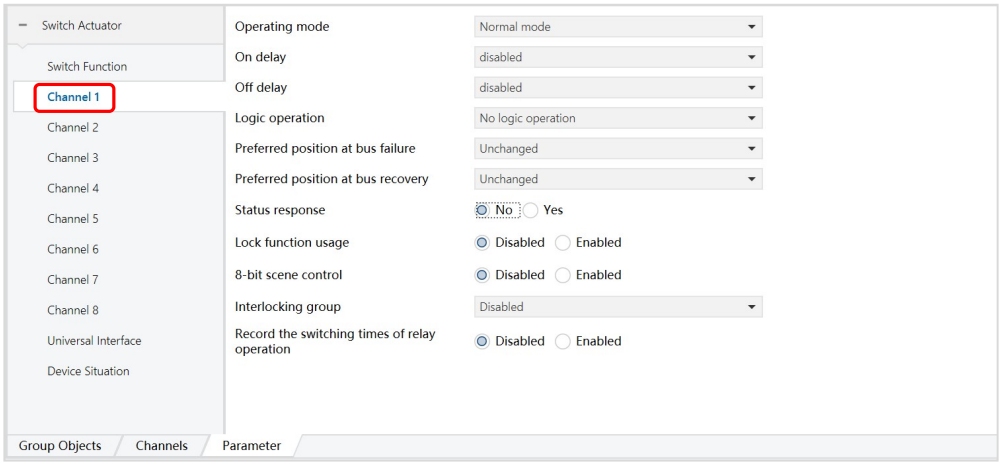


Figure 6.1.3

4) The parameter "Operating mode" is divided into three modes: Normal mode, Time mode and Cycle mode

6.1.1 Normal mode

Parameter	Description
On delay	Relay delay on (Options: disable, 1, 2...15 seconds); Example: Select "5 seconds" and when you send the "ON" command, the corresponding circuit will execute the relay ON after 5s.
Off delay	Relay delay off (Options: disable、1、2...15 seconds); Example: Select "5 seconds" and when you send the "OFF" command, the corresponding circuit will execute the relay OFF after 5s.
	Logic operation function, optional options: No Logic operation, AND function, OR function; take Channel 1 as an example, and the group address of "Switch, Channel 1" is 1/1/1, when ① parameter selects "AND function", then The group address of "Logic operation, Channel 1" must be 1/1/1, and only when the group address of "Switch,

Logic operation	Channel 1" is the same, the switch actuator can execute the command; ②When the parameter selects "OR function", "Logic The group address of "operation, Channel 1" can be different from the group address of "Switch, Channel 1", that is, the group address of "Logic operation, Channel 1" can be any group address, and "Switch, Channel 1" and "Logic operation" can be selected ,Channel 1" any group address between the two, switch the actuator to execute the command;
preferred position at bus failure	Indicates the state of the corresponding circuit of the relay after power failure, options: on, off, unchanged;
preferred position at bus recovery	Indicates the state of the corresponding circuit of the relay after the voltage is restored, options: on, off, unchanged;
Status response	Status feedback, options: No, Yes, when "Yes" is selected, the "Transmission of status" parameter will appear, options: using read request only, on change in status, always in operation; "Invert status feedback" indicates the function of feedback inversion, options: No, Yes, when "Yes" is selected, the feedback is off when the relay is on, and the feedback is on when the relay is off; "Real-time detection status" indicates the function of real-time status detection.
Lock function usage	The use of the channel lock function locks the on/off state of the corresponding channel relay to make it invalid on the bus. Options: Enabled, Disabled, when "Enabled" is selected, ① There is a parameter "The polarity of the lock" as The polarity of the lock, options: Lock with "1", UnIock with "0", Lock with "0", UnIock with "1"; ②The parameter "Lock start position" is the starting position of the lock, options: No reaction, Off, On; ③ parameter "Lock end position" is the end position of the lock, options: No reaction, Off, On;
8-bit scene control	Scene control function, optional options: Enabled, Disabled, when "Enabled" is selected, the "scene" option will appear on the corresponding channel on the left side of the interface, click "scene", and the interface will switch as shown in Figure 6.1.4. In the interface, ① parameter "Overwrite values stored in the device during ETS download" is to overwrite the scene values stored in the device during ETS download, options: Overwrite, Not rewrite; ② parameter "Scene assignment 1-64" indicates the value of the scene number Setting, the scene number can be set from 1 to 64; ③ The parameter "Output Value" indicates the output value of the channel operation corresponding to the scene number, and the options are: On, Off; ④ The parameter "Storage value for Scene assignment X" indicates the scene with the scene number X Learning function, (X:1~64), options: No, Yes, (for example: Channel 1 and Channel 2 select "1" in the parameter

	"Scene assignment 1[1-64]", "Storage value for Scene assignment 1 When "Yes" is selected, the communication object takes the group address 3/1/1 as an example. After the data download is completed, manually operate CH1 and CH2 on the execution module to be On (open), and then "diagnose" on the ETS. , enter the group address 3/1/1, then select "Learn" in "Value", select "1" for the scene number, and send it on the bus, then the scene number "1" will learn actuator CH1 and CH2 On (open) status is complete.)
Interlocking group	Interlock group function, optional options: Disabled, group1, group2...group12; for example, both Channel 1 and Channel 2 belong to group1, if Channel 1 is in the "On" state, Channel 2 will jump to the "Off" state, And vice versa, the two are interlocked.
Record the switching times of relay operation	Record the number of relay switching operations, options: Enabled, Disabled, when "Enabled" is selected, ① There is a parameter "Overwrite the switching times during ETS download" which is the function of resetting the number of operations when ETS data is downloaded, and the number of operations will return after the download is completed Zero, optional options: No, Yes; ② parameter "Reset the switching times of relay operation" is the function of resetting the switching times of the relay operation, optional options: No, Yes; ③ parameter "Send switching times in cycle" is the cycle sending switch The function of times, optional options: Enabled, Disabled, when "Enabled" is selected, the parameter "The time in cycles" is the cycle period, optional options: 1 secondsd, 2 secondsd...120 minutes. ④The parameter "Send switching times on change" is the function of sending the number of switching operations on the bus when the relay changes. The options are: Enabled, Disabled. When "Enabled" is selected, the value changed by the parameter "The value on change" is the relay switch The number of switch operations can be sent on the bus after satisfying the number of operations, options: 0, 1, 2 ... 255.

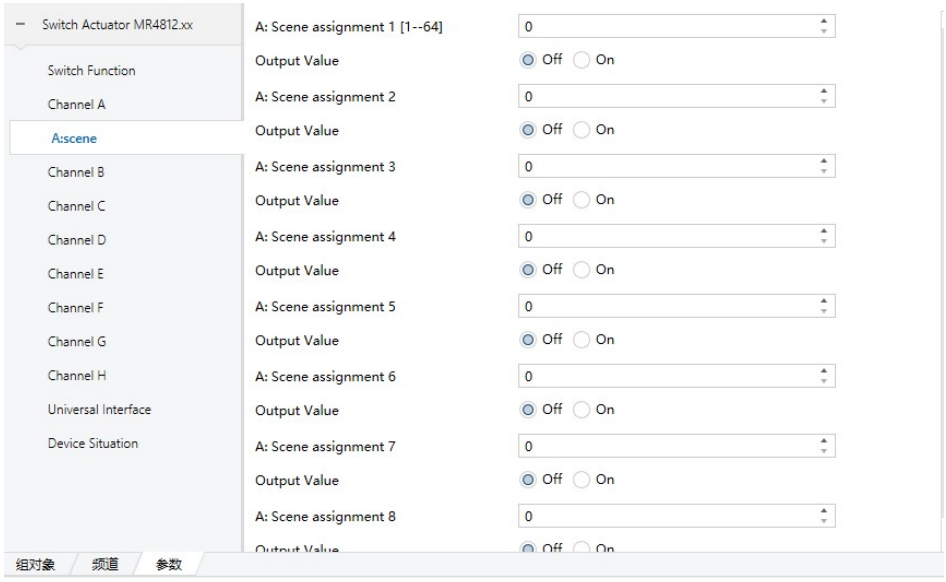


Figure 6.1.4

6.1.2 Time mode

Parameter	Description
On delay	Relay delay on（Options：disable, 1, 2...15 seconds); Example：Select "5 seconds" and when you send the "ON" command, the corresponding circuit will execute the relay ON after 5s.
Off delay	Relay delay off (Options：disable, 1, 2...15 seconds); Example：Select "5 seconds" and when you send the "OFF" command, the corresponding circuit will execute the relay OFF after 5s.
Time mode after voltage recovery	Time mode status after voltage recovery, options: on, off, as before voltage failure（Keep the status before power off)
On time	Represents the duration time of the relay on (options：1 second, 2 seconds ... 120 minutes)；Example: when “10 seconds” is selected, the relay is ON and it will automatically close after 10s;
preferred position at bus failure	Represents the state of the corresponding circuit of the relay after power failure，options：on, off, unchanged；
preferred position at bus recovery	Represents the state of the relay circuit after voltage recovery, options：on, off, unchanged；
Status response	State feedback, options：No, Yes，When "Yes" is selected，the “Transmission of status” parameter appears，options：using read request only（Status feedback only occurs when a request is made），on change in status（State changes have immediate state feedback, always on operation（Whenever a control command is issued, there is a state feedback）；“Invert status feedback” represents the function of feedback inversion, options：No, Yes，When "Yes" is selected, when the relay is on, the feedback off and when the relay is off, the feedback on;
Lock function usage	The use of the channel lock function locks the on/off state of the corresponding channel relay to make it invalid on the bus. Options: Enabled, Disabled, when "Enabled" is selected, ① There is a parameter "The polarity of the lock" as The polarity of the lock, options: Lock with "1", Unlock with "0", Lock with "0", Unlock with "1"; ②The parameter "Lock start position" is the starting position of the lock, options: No reaction, Off, On; ③ parameter

	"Lock end position" is the end position of the lock, options: No reaction, Off, On;
8-bit scene control	Scene control function, optional options: Enabled, Disabled, when "Enabled" is selected, the "scene" option will appear on the corresponding channel on the left side of the interface, click "scene", and the interface will switch as shown in Figure 6.1.4. In the interface, ① parameter "Overwrite values stored in the device during ETS download" is to overwrite the scene values stored in the device during ETS download, options: Overwrite, Not rewrite; ② parameter "Scene assignment 1-64" indicates the value of the scene number Setting, the scene number can be set from 1 to 64; ③ The parameter "Output Value" indicates the output value of the channel operation corresponding to the scene number, and the options are: On, Off; ④ The parameter "Storage value for Scene assignment X" indicates the scene with the scene number X Learning function, (X:1~64), options: No, Yes, (for example: Channel 1 and Channel 2 select "1" in the parameter "Scene assignment 1[1-64]", "Storage value for Scene assignment 1 When "Yes" is selected, the communication object takes the group address 3/1/1 as an example. After the data download is completed, manually operate CH1 and CH2 on the execution module to be On (open), and then "diagnose" on the ETS. , enter the group address 3/1/1, then select "Learn" in "Value", select "1" for the scene number, and send it on the bus, then the scene number "1" will learn actuator CH1 and CH2 On (open) status is complete.)
Interlocking group	Interlock group function, optional options: Disabled, group1, group2...group12; for example, both Channel 1 and Channel 2 belong to group1, if Channel 1 is in the "On" state, Channel 2 will jump to the "Off" state, And vice versa, the two are interlocked.
Record the switching times of relay operation	Record the number of relay switching operations, options: Enabled, Disabled, when "Enabled" is selected, ① There is a parameter "Overwrite the switching times during ETS download" which is the function of resetting the number of operations when ETS data is downloaded, and the number of operations will return after the download is completed Zero, optional options: No, Yes; ② parameter "Reset the switching times of relay operation" is the function of resetting the switching times of the relay operation, optional options: No, Yes; ③ parameter "Send switching times in cycle" is the cycle sending switch The function of times, optional options: Enabled, Disabled, when "Enabled" is selected, the parameter "The time in cycles" is the cycle period, optional options: 1 secondsd, 2 secondsd...120 minutes. ④The parameter "Send switching times on change" is the function of sending the number of switching operations on the bus when the relay changes. The options are: Enabled, Disabled. When "Enabled" is selected, the value changed by the parameter "The value on change" is the relay switch The number of switch operations can be sent on the bus after satisfying the number of operations, options: 0, 1, 2 ... 255.

6.1.3 Cycle mode

Parameter	Description
On delay	Relay delay on (Options: disable, 1, 2...15 seconds); Example: Select "5 seconds" and when you send the "ON" command, the corresponding circuit will execute the relay ON after 5s.
Off delay	Relay delay off (Options: disable, 1, 2...15 seconds); Example: Select "5 seconds" and when

	you send the "OFF" command, the corresponding circuit will execute the relay OFF after 5s.
Cycle mode after voltage recovery	Cycle mode status after voltage recovery，options： on, off, as before voltage failure（Keep the status before power off)
On time for cycle	Represents the time the relay stays on during the cycle（options：10seconds, 15seconds...120minutes）；
Off time for cycle	Represents the time the relay remains off during the cycle（options: 10seconds, 15seconds...120minutes）；
preferred position at bus failure	Represents the state of the corresponding circuit of the relay after power failure，options：on, off, unchanged；
preferred position at bus recovery	Represents the state of the relay circuit after voltage recovery，options：on, off, unchanged；
Status response	State feedback, options：No, Yes，When "Yes" is selected，the “Transmission of status” parameter appears，options：using read request only（Status feedback only occurs when a request is made），on change in status（State changes have immediate state feedback, always on operation（Whenever a control command is issued, there is a state feedback）；“Invert status feedback” represents the function of feedback inversion, options：No, Yes，When "Yes" is selected, when the relay is on, the feedback off and when the relay is off, the feedback on;
Lock function usage	The use of the channel lock function is to lock the on/off state of the corresponding channel relay, so that the control on the bus is invalid. The options are: Enabled, Disabled. When "Enabled" is selected, ① there is a parameter "The polarity of the lock" as Polarity of the lock, options: Lock with "1", UnIock with "0", Lock with "0", UnIock with "1"; ②The parameter "Lock start position" is the starting position of the lock, options: No reaction, Off, On; ③The parameter "Lock end position" is the end position of the lock, the options are: No reaction, Off, On;
8-bit scene control	scene control function，options：Enable, Disable, when "Enable" is selected, "scene" will appear in the corresponding channel on the left side of the interface. Click "scene" and the interface will be switched as shown in figure 6.1.4. In the interface "Scene assignment 1-8" represents the setting of the scene number, which can be set to 1-64, and "Output Value" represents the channel operation corresponding to the scene number, which can be filled in as "On" and "Off".
Interlocking group	Interlock group function, options: Disabled, group1, group2...group; for example, both Channel 1 and Channel 2 belong to group1, if Channel 1 is in the "on" state, then Channel 2 jumps to the "off" state, and vice versa, the two are interlocked.
Record the switching	Record the number of relay switching operations, options: Enabled, Disabled, when

times of relay operation	"Enabled" is selected, ① There is parameter "Overwrite the switching times during ETS download" to reset the number of operations during ETS data download, and the number of operations will be reset after the download is completed. Zero, options: No, Yes; ② parameter "Reset the switching times of relay operation", options: No, Yes; ③ parameter "Send switching times in cycle", options: Enabled, Disabled, when "Enabled" is selected, the parameter "The time in cycles" is the cycle period, options: 1S, 2S...120 minutes. ④ Parameter "Send switching times on change", optional options: Enabled, Disabled, when "Enabled" is selected, the parameter "The value on change" is the number of times the relay switch can send a switching operation on the bus after it meets the number of operations. Options: 0, 1, 2...255.

6.2 Setting of dry contact interface parameters

1) Click "Universal Interface" as shown in Figure 6.2.1, Universal Interface A-D is set to enable, four dry contact interfaces will be enabled.

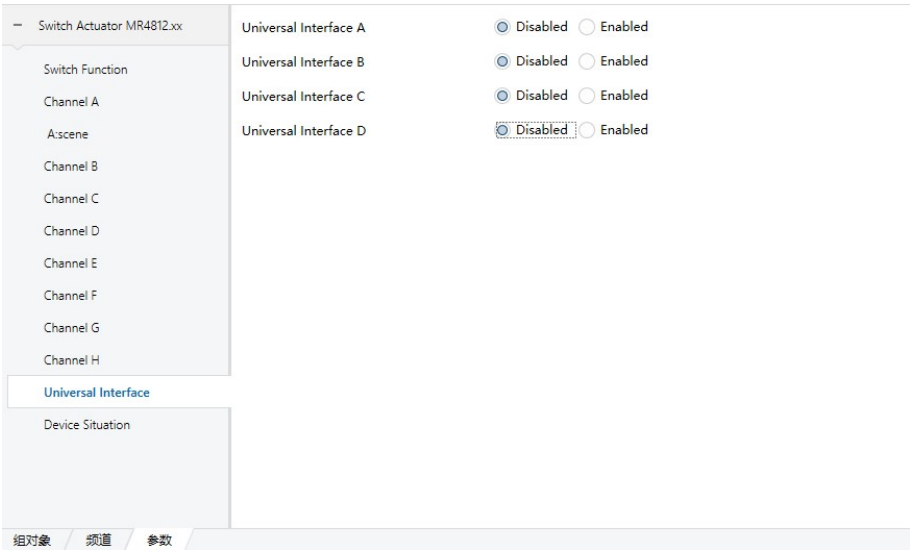


Figure 6.2.1

2) After the setting is completed, there will be Interface A-D four dry contact interfaces on the right. Click each dry contact interface to set its parameters. The following uses Universal Interface A as an example, as shown in Figure 6.2.2

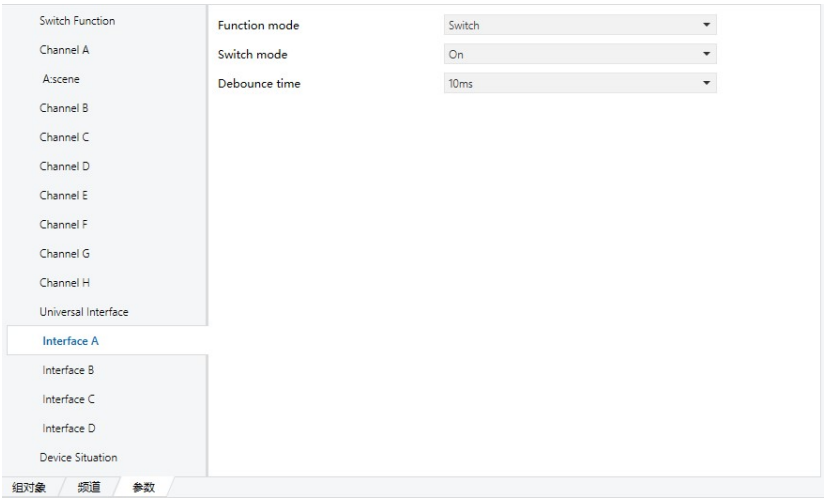


Figure 6.2.2

3）Parameter "function mode" is divided into 6 modes：Switch, Blind, Blind Position, Dimming, Dimming Position, Scene

6.2.1 Switch mode

Parameter	Description
Switch mode	Represents the action of the corresponding circuit control when the dry contact is triggered，options：on, off, toggle, user define；when user define is selected，The following parameters appear：（1）Reaction on closing the contact，options：on, off, no reaction；（2）Reaction on opening the contact，options：on, off, no reaction；（3）cyclic transmission of object，options：no, if “switch” =ON（relay on），if “switch” =OFF（relay off），always. When if “switch” =ON、if “switch” =OFF or always are selected，parameters will appear：transmission cycle time: base and Time factor[1-255]（Here the two parameters indicate the time interval between cyclic transmissions，transmission cycle time = base value × Time factor[1-255] value）.
debounce time	Debounce time，options：10ms, 20ms……100ms

6.2.2 Blind mode

Parameter	Description
Blind mode	Curtain action controlled by corresponding circuit when dry contact is triggered，options：up, down, toggle；
Long operation	Long press operation，options：yes, no. When yes is selected, parameter “Long operation after” will be added, options：0.5s、1s、2s……7s；The interval of data(base:0.1s) represents the interval at which each piece of data is sent during a long press, can be filled in: 1, 2, 3 ... 255;
debounce time	Debounce time，options：10ms, 20ms……100ms

6.2.3 Blind Position mode

Parameter	Description
Blind value (Range:0-255)0-100%	Represents the percentage of the position of the corresponding circuit control curtain when the dry contact is triggered. It can be filled in: 0-255;
debounce time	Debounce time，options：10ms, 20ms.....100ms

6.2.4 dimming mode

Parameter	Description
Dimming mode	Represents the dimming action controlled by the corresponding circuit when the dry contact is triggered，options：Dimming up, dimming down, toggle；
Long operation after:	Represents a corresponding action after a long press，options：0.5s, 1s, 2s.....7s
Transmission mode for long operation	Data transmission mode when long press，options：One-time transmission, cyclic transmission.
Step dimming	Represents the amplitude of dimming，options：100%、50%、25%、12%、6%、3%、1%
Send stop instruction when releasing	Command to stop when long press is released，options：No，Yes
debounce time	Debounce time，options：10ms, 20ms.....100ms

6.2.5 Dimming position mode

Parameter	Description
Dimming position (Range:0-255)0-100%	It indicates the brightness percentage of the corresponding circuit control dimming when the dry contact is triggered. It can be filled in: 0-255;
debounce time	Debounce time，options：10ms, 20ms.....100ms

6.2.6 Scene mode

Parameter	Description
Scene number	Represents the scene number called when the dry contact is triggered. It can be filled in: 1-64;
debounce time	Debounce time，options：10ms, 20ms.....100ms

6.3 Device Situation

1) Click "Device Situation" as shown in Figure 6.3.1, when the parameters Manual status and Device status are set to Enabled, the corresponding functions will be enabled.

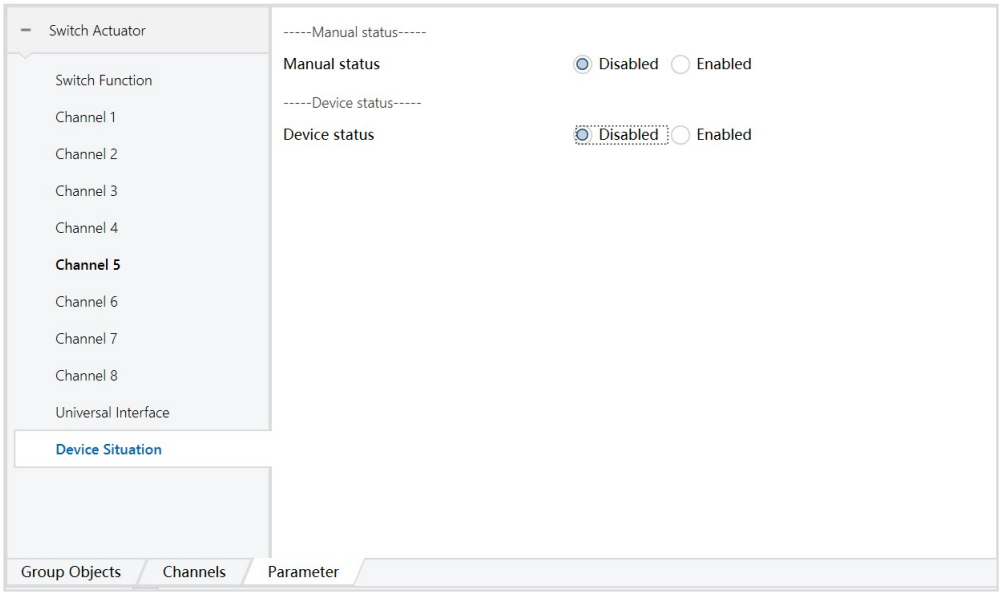


Figure 6.3.1

Parameter	Description
Manual status (not available)	Indicates manual status, options: Disabled, Enabled, when "Enabled" is selected, ① parameter "Transmission of manual status", options: using read request only, on change in status, always in operation; ②parameter "ON time during manual mode", options: unlimited, 1minutes, 2minutes...120minutes;
Device status	Indicates the device status, options: Disabled, Enabled, when "Enabled" is selected, the parameter "Transmission of device status", options: using read request only, on change in status, always in operation;

6.4 Communication object description

The communication object is the medium for the device to communicate with other devices on the bus, that is, only the communication object can perform bus communication. The role of each communication object is described in detail below (take the 8-way switching actuator as an example).

The 8-way switching actuator has a total of 73 objects, as shown in Figure 6.3.1, and the specific functions are shown in Table 1.1.

Note: in the column of table properties, "C" represents the communication function enable of the communication object, "W" represents the value of the communication object can be rewritten through the bus, "R" represents the value of the communication object can be read through the bus, "T" represents the communication object has the transmission function, and "U" represents the value of the communication object can be updated.

序号	名称	对象功能	描述	群组地址	长度	C	R	W	T	U	数据类型	优先级
0	Field switch	Recover / Save and Off			1 bit	C	R	W	T	U	switch	低
1	Switch, Channel A	On / Off			1 bit	C	R	W	T	U	switch	低
3	Cycle mode, Channel A	On / Off			1 bit	C	R	W	T	U	switch	低
4	Scene, Channel A	Recall / Program			1 byte	C	R	W	T	U	scene cont...	低
5	Status, Channel A	On / Off			1 bit	C	R	-	T	U	switch	低
6	Switch, Channel B	On / Off			1 bit	C	R	W	T	U	switch	低
7	Time mode, Channel B	On / Off			1 bit	C	R	W	T	U	switch	低
9	Scene, Channel B	Recall / Program			1 byte	C	R	W	T	U	scene cont...	低
10	Status, Channel B	On / Off			1 bit	C	R	-	T	U	switch	低
11	Switch, Channel C	On / Off			1 bit	C	R	W	T	U	switch	低
14	Scene, Channel C	Recall / Program			1 byte	C	R	W	T	U	scene cont...	低
15	Status, Channel C	On / Off			1 bit	C	R	-	T	U	switch	低
16	Switch, Channel D	On / Off			1 bit	C	R	W	T	U	switch	低
19	Scene, Channel D	Recall / Program			1 byte	C	R	W	T	U	scene cont...	低
20	Status, Channel D	On / Off			1 bit	C	R	-	T	U	switch	低
21	Switch, Channel E	On / Off			1 bit	C	R	W	T	U	switch	低
24	Scene, Channel E	Recall / Program			1 byte	C	R	W	T	U	scene cont...	低
25	Status, Channel E	On / Off			1 bit	C	R	-	T	U	switch	低
26	Switch, Channel F	On / Off			1 bit	C	R	W	T	U	switch	低
29	Scene, Channel F	Recall / Program			1 byte	C	R	W	T	U	scene cont...	低
30	Status, Channel F	On / Off			1 bit	C	R	-	T	U	switch	低
31	Switch, Channel G	On / Off			1 bit	C	R	W	T	U	switch	低
34	Scene, Channel G	Recall / Program			1 byte	C	R	W	T	U	scene cont...	低
35	Status, Channel G	On / Off			1 bit	C	R	-	T	U	switch	低

组对象 频道 参数

Figure 6.3.1

Number	Name	Communication object function	Data type	Attribute
0	Field switch	Recover/Save and Off	1 bit	C, R, W, T
The communication object is enabled when the parameter "Field control" selects "Enable". When the communication object receives the value "0", it will save the field state of the device and close all channels. When the communication object receives the value "1", it calls the last saved field state.				
1,6,11,16,21,26,31,36	Switch, Channel X	On/Off	1 bit	C, R, W, T
The communication object is enabled when "Channel X" selects "Enable". When the communication object receives the value "1", the Channel will operate "on" according to the corresponding mode. When the communication object receives the value "0", the channel will operate "off" according to the corresponding mode.				
2,7,12,17,22,27,32,37	Time mode, Channel X	On/Off	1 bit	C, R, W, T
The communication object is enabled when "Time mode" is selected in the Operating mode of "Channel X". When the communication object receives the value "1", turn on the time mode, at this point, control 1,6,11,16,21,26,31,36 objects. When the communication object receives the value "0", the time mode is turned off.				
3,8,13,18,23,28,33,38	Cycle mode, Channel X	On/Off	1 bit	C, R, W, T
The communication object is enabled when "Cycle mode" is selected in the Operating mode of "Channel X". When the communication object receives the value "1", the cycle mode is turned on, at this point, objects 1,6,11,16,21,26,31,36 are controlled. When the communication object receives the value "0", the cycle mode is turned off.				
4,9,14,19,24,29,34,39	Scene, Channel X	Recall/program	1 Byte	C, R, W, T
This communication object is enabled when the parameter "8-bit scene control" of "Channel X" selects "Enable", and a 1-byte instruction can be sent through this communication object to call the operation setting of the corresponding scene number. The parameter setting options are 1~64. In fact, the communication object Scene and Channel X receive the scene message correspond to 0~63. For example, Scene 1 is set in the parameter setting, the communication object Scene, Channel X received Scene is 0.				
5,10,15,20,25,30,35,40	Status, Channel X	On/Off	1 bit	C, R, T
This communication object is enabled when the parameter "Status response" of "Channel X" selects "Yes". The value of this communication object can directly indicate the switching state of Channel X relay.				
121,129,137,145	Switch, Interface X	On/Off	1 bit	C, R, W, T
This communication object is enabled when "Function mode" in "Interface X" selects "Switch". When the dry contact is				

triggered, the channel sends corresponding ON or OFF instructions according to the corresponding mode.				
122,130,138,146	Blind, Interface X	Up/Down	1 bit	C, R, W, T
This communication object is enabled when "Function mode" in "Interface X" selects "Blind", when the dry contact is triggered, the channel sends the corresponding up or down instruction according to the corresponding mode.				
123,131,139,147	Blind, long, Interface X	Up/Down	1 bit	C, R, W, T
This communication object is enabled when "long operation" in "Blind" of "Interface X" selects "yes", when the dry contact is triggered by long press, the channel sends the corresponding up or down instruction according to the corresponding mode.				
124,132,140,148	Blind value, Interface X	8-bit value	1 Byte	C, R, W, T
This communication object is enabled when "Function mode" in "Interface X" selects "Blind position", when the dry contact is triggered, the channel sends the corresponding curtain height percentage instruction according to the corresponding mode.				
125,133.141,149	Dimming switch, Interface X	On/Off	1 bit	C, R, W, T
This communication object is enabled when "Function mode" in "Interface X" selects "Dimming", when the dry contact is triggered by a short press, the channel sends the corresponding dimming on/off instruction according to the corresponding mode.				
126,134.142,150	Dimming level, Interface X	Brighter/Darker	4 bit	C, R, W, T
This communication object is enabled when "Function mode" in "Interface X" selects "Dimming", when the dry contact is triggered by a long press, the channel sends corresponding series of relative dimming instructions according to the corresponding mode.				
127,135,143,151	Dimming value, Interface X	8-bit value	1 Byte	C, R, W, T
This communication object is enabled when "Function mode" in "Interface X" selects "Dimming position", when the dry contact is triggered, the channel sends absolute dimming instructions according to the setting percentage.				
128,136,144,152	Scene, Interface X	8-bit value	1 Byte	C, R, W, T
This communication object is enabled when "Function mode" in "Interface X" selects "Scene", when the dry contact is triggered, the channel sends corresponding scene control instructions according to the corresponding mode.				
157	Scene, Interface X	8-bit value	1 Byte	C, R, W, T
This communication object is enabled when "Enabled" is selected for "Record the switching times of relay operation" in "Channel X" and "Yes" is selected for the parameter "Reset the switching times of relay operation", this parameter is used to reset the relay If the communication object receives the value "00", it means that there is no action, and if it receives the value "01", it means that the number of reset relay switches is zero.				
158，160，162，164，166，168，170，172	Record the switching times, Channel X	Reset	1 bit	C, R, W, T
This communication object is enabled when you select "Enabled" and select "Yes" for "Record the switching times of relay operation" in "Channel X". This parameter sends the number of relay switching operations on the bus.				
159，161，163，165，167，169，171，173	Record the switching times, Channel X	Statistics	4 Byte	C, R, W, T
This communication object is enabled when you select "Enabled" and select "Yes" for "Record the switching times of relay operation" in "Channel X". This parameter sends the number of relays switching operations on the bus.				

Table 1.1

7 Safe use and maintenance

(1) Read all instructions carefully before use。

(2) Create a good ventilation environment.

(3) During use, pay attention to moisture, shock and dust.

(4) Strictly forbid to rain, contact with other liquids or corrosive gases.

(5) If it is wet or attacked by liquid, it should be dried in time.

(6) When the machine fails, please contact professional maintenance personnel or our company.

8 Contact

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