

GER-IOTX IWRSAC_V2		INTELLIGENT AC TUBULAR MOTOR CONTROLLER
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The In-wall Shutter Module is a Z-Wave TM enabled device which is fully compatible with any Z-Wave TM enabled network. This product can be operated in any Z-Wave network with other Z-Wave certified from other manufacturers. All non-battery-operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network. Inclusion of this unit on other manufacturer's Wireless Controller menu allows remote operation of the unit and the connected load.

The encryption modes that the in-wall shutter module supports are S0, S2 Unauthenticated. When the in-wall shutter module is being included into a Z-Wave network, you can use your primary controller/gateway to enable one encryption mode or disable encryption. (The primary controller/gateway shall support encryption mode configuration).

This device must be used in conjunction with a Security Enabled Z-Wave Controller in order to fully utilize all implemented functions.

This device is a security enabled Z-Wave Plus product that is able to use encrypted Z-Wave Plus messages to communicate to other security enabled Z-Wave Plus products.

The In-wall Shutter Module is designed to control any kind of AC tubular motors mounted in your house. It is designed to be mounted behind control switch as well as been able to be used mounted close to the motor itself.

The Module has several unique functions like detection of the roller shutter blocking situation as well as app/switch reverse direction if user installed running direction wrongly which give the user the opportunity to install the module without rewiring at installation. Ventilation function like the roller shutter open all gaps to ventilate the room.

FEATURES

Frequency: 868.42 MHz

AC 90-250V Input / -10 – 40 degrees C

Stop by block and alarm function

Two-way running position feedback

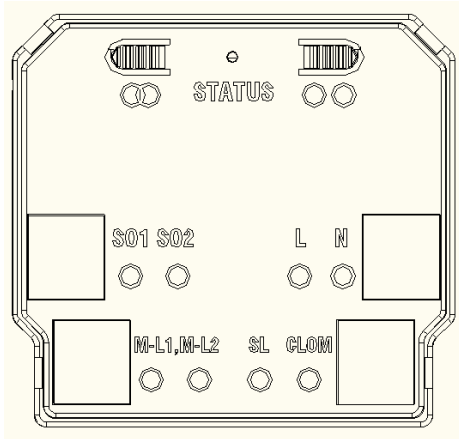
Switch and App control

Motor operating direction reverse (APP/external switch)

App operating direction reverse

Ventilation Function

Compact size: 45mm×42mm×18mm



CONFIGURATION AND FUNCTION DESCRIPTIONS

SAFETY PRECAUTIONS & INSTALLATION

- Please install the module under the guidance of professional electricians.
- Avoid installing the module in storming or raining weather.
- Be sure to isolate or switch off power before installation or maintenance.

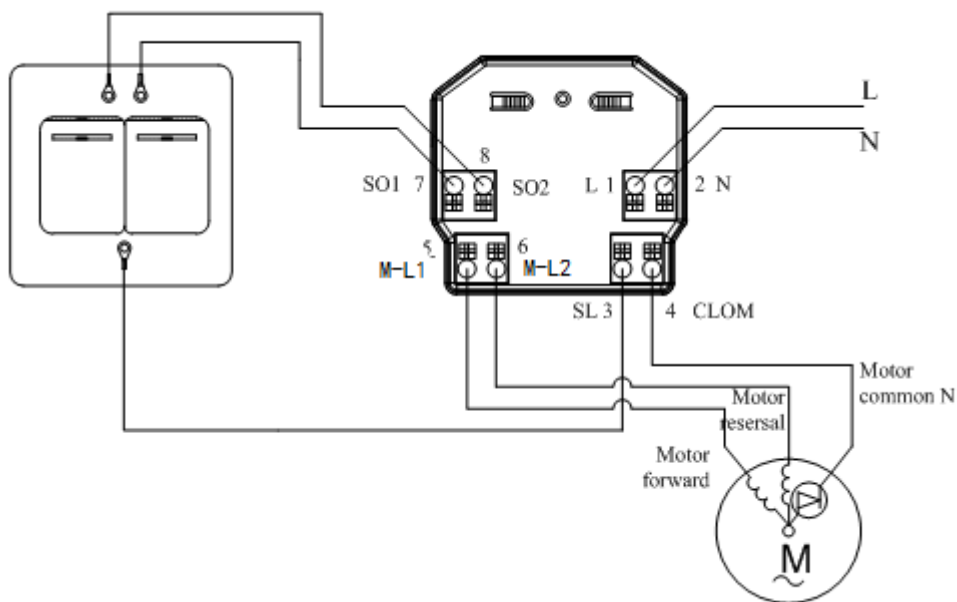
IMPORTANT

Installation must be performed by skilled technicians who are informed about the standards and technical requirements of the appliance and its proper installation.

If the house wiring is of aluminum, consult with an electrician about proper wiring methods.

Before proceeding with the installation, TURN OFF THE POWER TO THE LIGHTING CIRCUIT AT THE CIRCUIT BREAKER OR FUSE BOX TO AVOID ELECTRICAL SHORT.

WIRING DIAGRAM



OPERATION INSTRUCTION

Connect the module to the motor in accordance with the recommended diagram, 5 seconds after the electric supply being loaded onto the module, LED red light will flash slowly and learning the roller shutter position automatically. Please wait until the motor stopped learning, then LED light will flash fast for 2 seconds.

SHUTTER SPECIFIC FUNCTIONS

Include (adding to a Z-Wave Network)

Make sure connect module to power supply and module has not joined other Z-Wave network (if module joined other Z-Wave network, please refer to the clauses "Exclude device from a Z-Wave network").

First, set primary controller/gateway into inclusion mode. And press Button L 3 times, LED started to flash slowly for 10 seconds, during the flash, don't press Button L 3 times again, it will cancel your last operation. Until LED is on for 3 seconds, means success. If module does not find a Z-Wave network within 10 seconds after join network function trigger, please try again.

After join Z-Wave network, please wait for a while until the app showing device is included. Then you may start your enjoyment with our module.

Exclusion (removing from a Z-Wave Network)

Method 1: Factory Reset.

First, set primary controller/gateway into inclusion mode. And press Button L 3 times, LED started to flash slowly for 10 seconds, during the flash, don't press Button L 3 times again, it will cancel your last operation. Until LED is on for 3 seconds, means success. If module does not find a Z-Wave network within 10 seconds after join network function trigger, please try again.

Method 1: Factory Reset.

Method 2: First, set primary controller/gateway into exclusion mode. And press Button L 3 times, LED started to flash slowly for 10 seconds, during the flash, don't press Button L 3 times again, it will cancel your last operation. Until LED is on for 3 seconds, means success.

Learn Motor Running Position

Module is learning motor running position automatically each time when it's pot on power supply.

Tap Button R two times, learning function start, motor is running automatically to the up/down limit. During learning, LED light is flash slowly, until LED blink 2 seconds means success. During learning, press Button R to quit learning.

Motor operating direction reverse (APP/external switch)

Connect the module to the motor and external switch in accordance with the recommended diagram. After module is installed, the direction of the external switch control and APP control are maybe wrong; ①long press Button L for 3-6 seconds and LED light flash slowly until fast flash 2 seconds means success, then switch control direction have been exchanged completely. ②Long press Button R for 3-6 seconds and LED light flash slowly until fast flash 2 seconds means success, then APP 0% means UP, 99% means DOWN, directions are reversed correctly.

After direction reverse, learning is needed to do again. Press Button R 2 times, let motor run automatically until it's stopped and LED light blink 2 seconds means success.

Turn on/off Stop by Block Function

Blocking function can be turned off or turned on manually in case the tubular motor already has this function inside (please refer to your tubular motor manual), this function default is on.

Press Button R and Button L together for 1-2 seconds, until LED fast flash for 2 seconds means success.

LED on means this function is on, LED off means this function is off.

Blocking protection

When motor encountered a resistance (e.g. the shutter was frozen and can't move) and forced to stop in a running, LED flash always like SOS and an alarm signal will be sent to the cell phone app notify user that the motor has suffered a resistance. Note that alarm information report feature requires cell phone app support.

Once the motor triggers blocking protection, two methods can release it:

- Operate the motor controller via the switches connected to SO1/SO2.
- After 3 hours, blocking protection can be released automatically.

Note: After release blocking protection by press SO1 or SO2 button, user can control motor again by press SO1 or SO2 button. But, even blocking protection is released, within 40 seconds since blocking protection triggered, set commands can not yet control motor

Motor recovery out of Block

After motor encountered resistance and the blocking protect function is triggered, user can't operate module anymore. After 1) Press any external switch button; 2) Recovery automatically after three hours; 3) Power off and put power on again.

After the above recovery, also means after release the stop by block function, please learn motor again.

Turn on/off Ventilation Function

Default is off.

Hold Button Right for 10 seconds, LED will flash slowly until fast flash for 2 seconds means success.

If this function is on, shortly after roller shutter fully closed, it will go up a bit again, let roller shutter ventilate the room.

Factory Reset

Please use this procedure only when the network primary controller is missing or otherwise inoperable. Hold Button L for 10 seconds, LED will flash slowly until flash fast for 2 seconds means success. After reset, module is excluded from Z-Wave network, please include again and learn motor again.

BUTTON STATUS

Button L	Function	Button R	Function
Press 3 times	Include/Exclude Z-Wave Network	Press 2 times	Learn
Hold 3-6 seconds then lease	Switch Direction Reverse	Hold 3-6 seconds then release	App Direction Reverse
Hold 10 seconds	Reset	Hold 10 seconds	Turn on/off Ventilation Function

Press Button L and R together for 1-2 seconds	Turn on/off Stop by Block Function
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PROGRAMMING

NOTIFICATION REPORT EVENT

Notification Type	Triggering Event
NOTIFICATION_TYPE_POWER_MANAGEMENT(08)	OVERCURRENT_DETECTED (0x06)

Wireless Range	Up to 100 m outside, on average up to 40 m inside buildings
SDK	6.71.03
Explorer Frame Support	Yes
Device Type	Window Covering Position/Endpoint Aware
Generic Device Class	GENERIC_TYPE_SWITCH_MULTILEVEL
Specific Device Class	SPECIFIC_TYPE_CLASS_C_MOTOR_CONTROL
Routing	Yes
FLiRS	No
Role Type	Always On Slave (AOS)

ASSOCIATION

Association Groups	Group Name	Max Nodes	Description
Group 1	Lifeline	5	<p>1. When device is reset, send Command Class 'Device Reset Locally Notification CC' to associated devices of this group to report factory reset.</p> <p>2. When motor is stopped by block, send Command</p>

			<p>Class 'NOTIFICATION_REPORT CC' to associated devices of this group to report overload information.</p> <p>3. Active reply percent, send Command Class 'SWITCH_MULTILEVEL_REPORT CC' to associated devices of this group to report state information.</p>
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Symptom	Cause of Failure	Recommendations
Device not responding and LED not displaying	The device is not wired to the mains power correctly	Check if wiring is correct, or voltage is too high or too low
LED displaying, but cannot control On/Off status of connected load	The connected load has its own on/off switch	Turn the switch of the connected load to On.
Can press button to control, but cannot control by RF	RF interference is occurring. Someone nearby might be emitting RF signal of the same frequency	Wait for a while and retry the operation

SUPPORTED COMMAND CLASS

Notes:

Switch Set command : The Duration of the command will be ignored because this device can not control the speed of motor.

Command class		Support S0 and S2
COMMAND_CLASS_ZWAVEPLUS_INFO	V2	
COMMAND_CLASS_SECURITY	V1	
COMMAND_CLASS_SECURITY_2	V1	
COMMAND_CLASS_TRANSPORT_SERVICE	V2	

COMMAND_CLASS_SUPERVISION	V1	
COMMAND_CLASS_SWITCH_BINARY	V1	YES
COMMAND_CLASS_MANUFACTURER_SPECIFIC	V2	YES
COMMAND_CLASS_VERSION	V2	YES
COMMAND_CLASS_CONFIGURATION	V1	YES
COMMAND_CLASS_ASSOCIATION_GRP_INFO	V1	YES
COMMAND_CLASS_ASSOCIATION	V2	YES
COMMAND_CLASS_POWERLEVEL	V1	YES
COMMAND_CLASS_DEVICE_RESET_LOCALLY	V1	YES
COMMAND_CLASS_NOTIFICATION	V8	YES
COMMAND_CLASS_FIRMWARE_UPDATE_MD	V4	YES
COMMAND_CLASS_SWITCH_MULTILEVEL	V3	YES

SMART CONFIGURATION

Parameter Decimal base	Length	Function Description	Default Value
2	1	The change value of shutter position to report, default is always reporting shutter position. 0: Forbid Reporting Actively 1-10: Percent	1
3	1	Turn on/off Stop by Block Function 0: Turn Off 1: Turn On	1
4	1	Lear mode: 0. No operation 1. Proceed the motor's initial setting for Limit Head to Limit Bottom first, our moter controller could learn the total distance between Up and Down (or Left and Right). 2: Switch Direction Reverse: Two switches, one is for motor up operation and another is motor down operation. Via the command to correct the misconnection of switches. 3: App Direction Reverse: When APP control the motor and find the direction is wrong, then correct it via this command.	0
5	1	Turn on/off Ventilation Function 0: Turn Off 1: Turn On	0

