

## Shutter actuator

H4661M2 - LN4661M2 - 0 675 57 - AM5861M2

### Description

Flush mounted 2 module actuator with 2 internal relays, 3 pushbuttons and 3 bicolour LEDs, for operation with specific control devices for the management of shutters (UP, DOWN, blade position).

However, the same actuator can also be used with all other control devices, although in that case the Preset function will not be available.

### Preset function:

In addition to the Monostable and Bistable UP/DOWN operating modes, by pressing the STOP pushbutton the actuator gives the possibility of moving the shutter to a specific position (Preset). During this mode of operation, the Preset LED will be on.

The device is supplied with 9 preset positions, which can be selected by connecting the numeric configurators 1 to 9 to the "Pre" socket on the back of the actuator.

It is also possible to set a different position as required by the user; for the configuration modes see the next page.

The Preset function can also be managed using the Scenario Module (enabling of scenarios with preset shutter positions). In this case, move the shutter to the desired position when saving the scenario.

**Note:** the scenario module must have been produced after week 29-2012.

### Technical data

Power supply from SCS BUS:	27 Vdc
Operating power supply with SCS BUS:	18 – 27 Vdc
Max. absorption:	16 mA
Operating temperature:	0 – 40 °C
Power/absorption of the driven loads:	250 Vac – 2 A

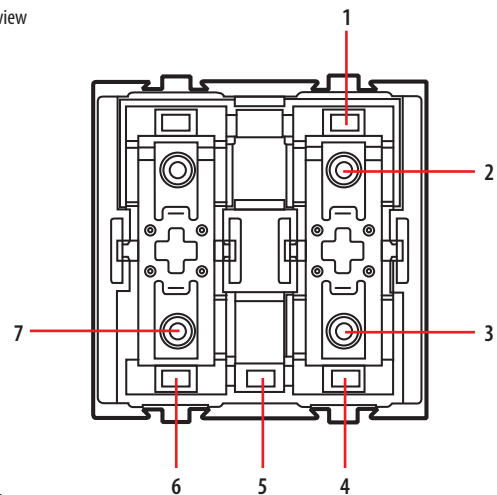
### Standards, certifications, marks

- EN50090-2-2: Home and building electronic systems (HBES)
- EN50090-2-3: General functional safety requirements for products intended to be integrated in HBES
- EN50428: Switches and related accessories for use in home and building electronic systems (HBES)

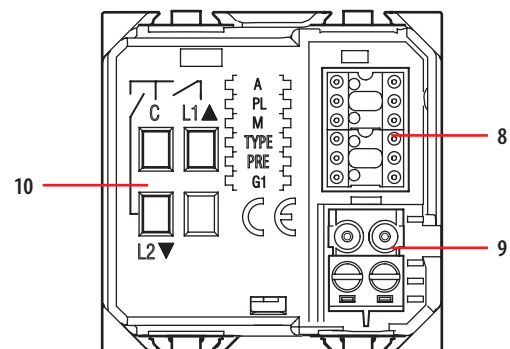
### Dimensional data

Size: 2 flush mounted modules.

Front view



Rear view



### Legend

1. UP LED - orange (green + red) or purple (red + blue), when the shutter is moving upwards. Green or blue, when the shutter is still, or moving downwards.
2. UP shutter pushbutton
3. DOWN shutter pushbutton
4. DOWN LED - orange (green + red) or purple (red + blue), when the shutter is moving downwards. Green or blue, when the shutter is still, or moving upwards.
5. Push&Learn configuration and shutter position configuration pushbutton.
6. Preset LED - ON orange (green + red) or purple (red + blue), when the shutter is moving to the Preset position. Flashing during the virtual configuration.
7. STOP pushbutton: Press when the shutter is still to move it to the Preset position. Press when the shutter is moving, to stop it at the current position.
8. Configurator socket (to be used only in MyHOME systems with physical configuration)
9. BUS clamp
10. Clamps (3 x 2.5 mm<sup>2</sup>) for connection to the load

## Configuration

If the device is installed in a MyHOME system, it can be configured in two ways:

- PHYSICAL CONFIGURATION: by connecting the configurators to the appropriate sockets.
- Configuration using the MyHOME\_Suite software, which can be downloaded from the website [www.homesystems-legrandgroup.com](http://www.homesystems-legrandgroup.com); this last type of configuration has the advantage of offering many more options when compared with the physical configuration.

For the list of modes and the corresponding meanings refer to the indications of this data sheet, and to the "Function description" section of the MyHOME\_Suite software.

**Note:** For this device, the MyHOME Server automatically configures 1 channel.

### 1.1 Addressing

Address type		Virtual configuration (MyHOME_Suite)	Physical configuration
Point-to-point	Room	0-10	A=1-9
	Light point	0-15	PL=1-9
Group		Group 1 - Group 10: 0-255	G=0-9

### 1.2 Mode

Virtual configuration (MyHOME_Suite)		Physical configuration
Function	Parameter / setting	
Master actuator <sup>1)</sup>	Master	M=0
Actuator as Slave. It receives a command sent by a Master actuator with the same address	Slave	M=SLA
Pushbutton (monostable ON). The actuator ignores Room and General controls	Master PUL	M=PUL

**NOTE 1):** Operation based on the mode configured in the control device. After acquiring the shutter positions (open and closed), it will be possible to guarantee 100 different positions.

For the use of the "Actuator as slave with PUL function" and to define the Preset positions, use the MyHOME\_Suite virtual configuration.

#### 1.2.1 Type of motor

Virtual configuration (MyHOME_Suite)		Physical configuration
Type	Parameter / setting	
Standard with manual calibration	Standard	Type=1
Pulse operation	Pulse	Type=2

**NOTE:** To adjust the "Stop pulse duration" and the "Up or Down pulse duration" use the MyHOME\_Suite virtual configuration.

#### 1.2.2 Control using the actuator pushbutton

Virtual configuration (MyHOME_Suite)		Physical configuration
Parameter / setting		
Bistable control <sup>1)</sup>		M= ↑↓
Monostable control		M= ↑↓M
Blades control and bistable control <sup>2)</sup>		M=1
Bistable control and blades control <sup>3)</sup>		M=2

**NOTE 1):** After acquiring the two positions, closed and open shutter, it will be possible to manage 100 different positions.

**NOTE 2):** Bistable mode if the pressure time exceeds 1.5 s.

**NOTE 3):** Blades adjustment if the pressure time exceeds 1.5 s.

## 1.2.3 Selection of the Preset position

Virtual configuration (MyHOME_Suite)		Physical configuration
Function	Parameter / setting	
Shutter opening 10%	1	Pre=1
Shutter opening 20%	2	Pre=2
Shutter opening 30%	3	Pre=3
Shutter opening 40%	4	Pre=4
Shutter opening 50%	5	Pre=5
Shutter opening 60%	6	Pre=6
Shutter opening 70%	7	Pre=7
Shutter opening 80%	8	Pre=8
Apertura tapparella 90%	9	Pre=9

**Operating mode for pulse motors with a 3rd limit switch**

With configurator 2 connected to the "Type" position and configurator 9 connected to the "Pre" position of the device, when the STOP pushbutton of the control is pressed while the shutter is still, the shutter moves to the 3rd limit switch position. If no configurator is connected, the «Preset» position is disabled.

To set the "Preset P1-P9: 0-100" use the MyHOME\_Suite virtual configuration.

**NOTE:** the correct operation of the PRESET function with shutters with adjustment of the blades is only guaranteed when a pulse motor is used.

**Mode of operation of the L1 and L2 contacts of the actuator configured as TYPE=2 for the management of the 3rd limit switch****Default operation TYPE=2 PRE=1-8**

## THE SHUTTER IS STILL

Press UP	→	L1 closes for 0.5s
Press DOWN	→	L2 closes for 0.5s
Press STOP	→	send a PRESET control

## THE SHUTTER IS STILL

Press UP	→	L1 closes for 0.5s
Press DOWN	→	L2 closes for 0.5s
Press STOP	→	L1+ L2 close for 0.5s

**Operation TYPE=2 PRE=9**

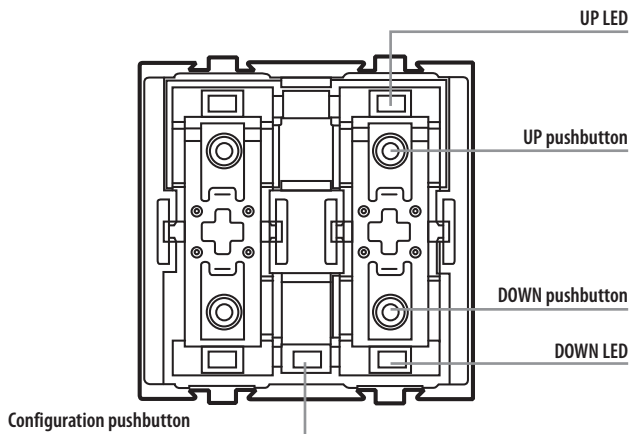
## THE SHUTTER IS STILL

Press UP	→	L1 closes for 0.5s
Press DOWN	→	L2 closes for 0.5s
Press STOP	→	L1+ L2 close for 0.5s

## THE SHUTTER IS STILL

Press UP	→	L1 closes for 0.5s
Press DOWN	→	L2 closes for 0.5s
Press STOP	→	L1+ L2 close for 0.5s

**Calibration of the shutter position**



**Manual calibration of the shutter position**

This operation is necessary for correct operation of the actuator, and ensure that the actuator saves the shutter opening and closing positions.

If no calibration is performed, the actuator cannot be managed by the control devices, but only locally, by pressing the corresponding front pushbuttons; in this case, it will send controls at 5 seconds intervals to the motor.

1. Press the configuration pushbutton for at least 3 seconds. All the LEDs will come on orange (green + red), or purple (red + blue).
2. Release the configuration pushbutton. The LED indicating the "UP" position will start flashing quickly.
3. Press and release the "UP" pushbutton. The shutter will move upwards, and the "UP" LED will flash slowly.
4. Once the shutter has reached the maximum opening position, press the "DOWN" pushbutton. The shutter will move downwards, and the "DOWN" LED will flash slowly. During this stage, the actuator measures and saves the time it takes the shutter to close.
5. When the shutter is fully closed, press and release the "UP" pushbutton. The shutter will move upwards, and the "UP" LED will flash slowly, to enable the actuator to measure and save the time it takes the shutter to open.
6. When the shutter maximum opening position is reached, press the "DOWN" pushbutton again to complete the calibration procedure. The "UP" position LED will become green or blue.

**WARNING:** the calibration precision, and therefore the control of the shutter position, depends on the accuracy with which the limit switch positions are manually detected during the calibration itself.

**Saving the new shutter position (Preset)**

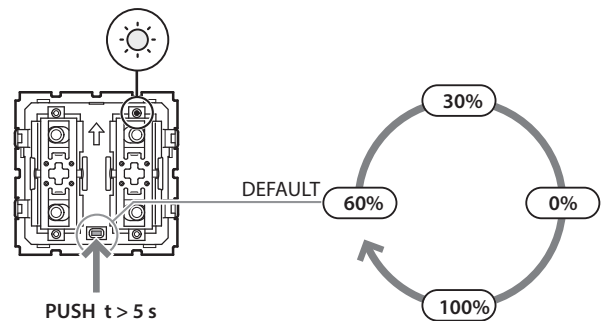
The Preset function gives the possibility of setting the shutter in one of the 9 positions that can be selected through the configurator in the Pre socket. It is also possible to set a different position as required by the user. The procedure, which can be performed from the control device, or the actuator, is as follows:

1. Press the "UP" and "DOWN" pushbuttons to move the shutter to the desired position.
2. Press the STOP pushbutton for at least 10 seconds. The actuator saves the position of the shutter.

3. To confirm that the position has been saved correctly, the two LEDs, UP and DOWN, come on orange (green + red) or purple (red + blue) for 2 seconds.

Irrespective of the shutter position, once this has been stopped by pressing the STOP pushbutton, it will be possible to move it to the preset position.

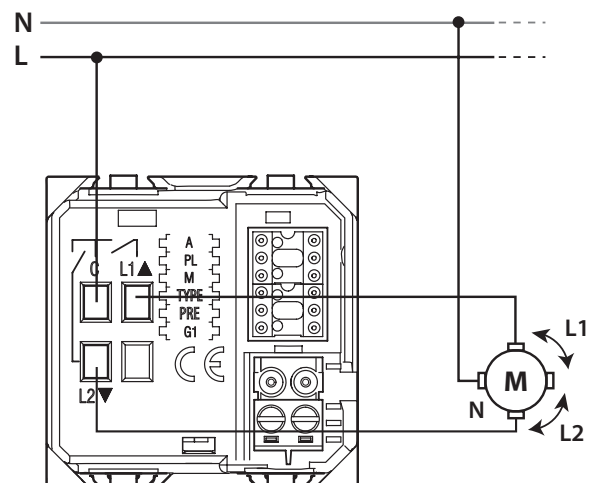
**LED ADJUSTMENT**



1. Press the configuration pushbutton for at least 5 seconds. All the LEDs will come on orange (red + green), or purple (red + blue) after 3 seconds, and after another 5 seconds will turn green or blue again;
2. Press and hold down the pushbutton, the brightness of the LED will change every 2 seconds as shown in the drawing;
3. Once the desired brightness level has been reached, release the pushbutton.

**Wiring diagram**

**Traditional motor:**



**Pulse motor**

For the connection refer to the indications supplied with the motor interface.