

## Rolling shutter actuator

F401

### Description

Actuator device in DIN enclosure with 2 interlocked relays, 3 pushbuttons, and 3 LEDs. The actuator has been designed to be used with specific advanced control devices for the management of shutters. However, the 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 UP/DOWN Monostable and Bistable operating modes, depending on the configuration of the corresponding control device, it will also be possible to set the shutter to a specific position (Preset). For further details see the technical sheet of the advanced shutter control.

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

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

### Technical data

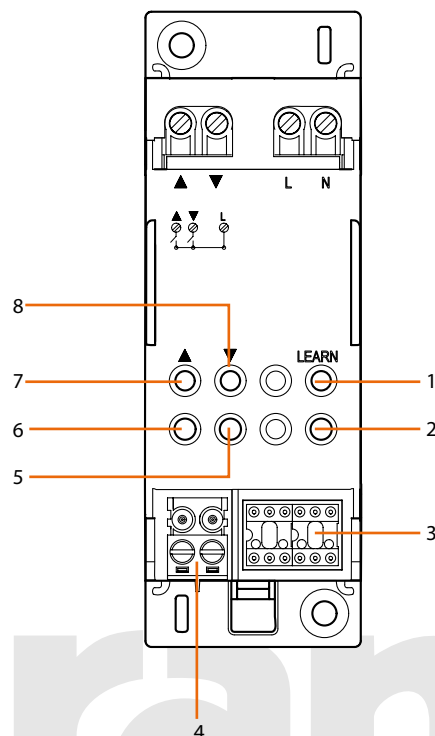
Power supply via SCS BUS:	27 Vdc
Operating power supply with SCS BUS:	18 – 27 Vdc
Max. current draw:	16 mA
Operating temperature:	0 – 40 °C
Power/consumption of driven loads:	250 Vac - 2 A
Protection index:	IK04
Impact resistance:	IP20

### Standards, Certifications, and 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 DIN modules



### Legend

1. Push&Learn configuration and shutter position configuration pushbutton
2. LED: on during the calibration procedure
3. Configurator socket (to be used only in My Home systems with physical configuration)
4. BUS clamp
5. DOWN LED: ON when the shutter is moving downwards.
6. UP LED: ON when the shutter is moving upwards. flashing during the virtual configuration.
7. UP shutter pushbutton
8. DOWN shutter pushbutton

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### Configuration

If the device is installed in a My Home system it can be configured in two ways:

- PHYSICAL CONFIGURATION, inserting the configurators in position.
- Configuration via MYHOME\_Suite software package, downloadable from [www.homesystems-legrandgroup.com](http://www.homesystems-legrandgroup.com); this mode has the advantage of offering many more options than the physical configuration.

For a list of the procedures and their meanings, please refer to the instructions in this sheet and to the "Function Descriptions" help section in the MYHOME\_Suite software package.

### 1.1 Addressing

Address type		Virtual configuration (MYHOME_Suite)	Physical configuration
Point-to-point	Room	0-10	A=1-9
	Lighting 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. Receives a control sent by a Master actuator with the same address	Slave	M=SLA
Pushbutton (ON monostable) 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 positions of the rolling shutter (open and closed), it will be possible to ensure 100 different positions.

To use the "Actuator as a slave with PUL function" and to define the Preset positions, use MYHOME\_Suite virtual configuration.

#### 1.2.1 Type of motor

Virtual configuration (MYHOME_Suite)		Physical configuration
Type	Parameter / setting	
Standard with automatic calibration	Standard automatic	Type=-
Standard with manual calibration	Standard	Type=1
Pulse	Pulse	Type=2

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

### 1.3 Operating mode for pulse motors with a 3rd limit switch:

After inserting 2 in the Type socket and 9 in the Pre position of the device, when the STOP pushbutton of the control is pressed while the shutter is still, the shutter will move to the position of the 3rd limit switch.

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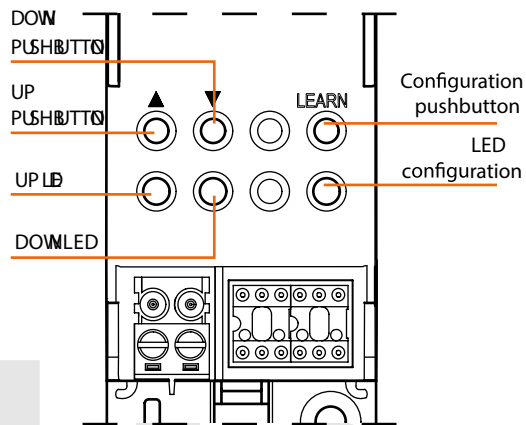
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### Calibration of the shutter position

This operation is necessary for correct operation of the actuator, which will have to save the shutter maximum 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.

Depending on the type of motor to manage, different procedures will have to be followed:



### Automatic calibration

It applies to standard motors.

1. Press the configuration pushbutton for at least 3 seconds. The corresponding LED comes on.
2. Press and release the "UP" pushbutton. The shutter moves upwards and the "UP" LED comes on.
3. Once the shutter has reached the maximum opening position, it will automatically start to move downwards until fully closed. The "DOWN" LED comes on. During this stage, the actuator measures and saves the time it takes the shutter to close (\*).
4. The shutter will then automatically start moving upwards, until the maximum opening position has been reached. The "UP" LED comes on. During this stage, the actuator measures and saves the opening time.
5. The switching off of the LED associated to the configuration pushbutton and of the "UP" LED confirm the completion of the calibration procedure.

**Note (\*)** If what described at point 3 is not automatically completed, proceed with the manual calibration of the device, and connect configurator 1 to the Type socket of the actuator.

### Manual calibration

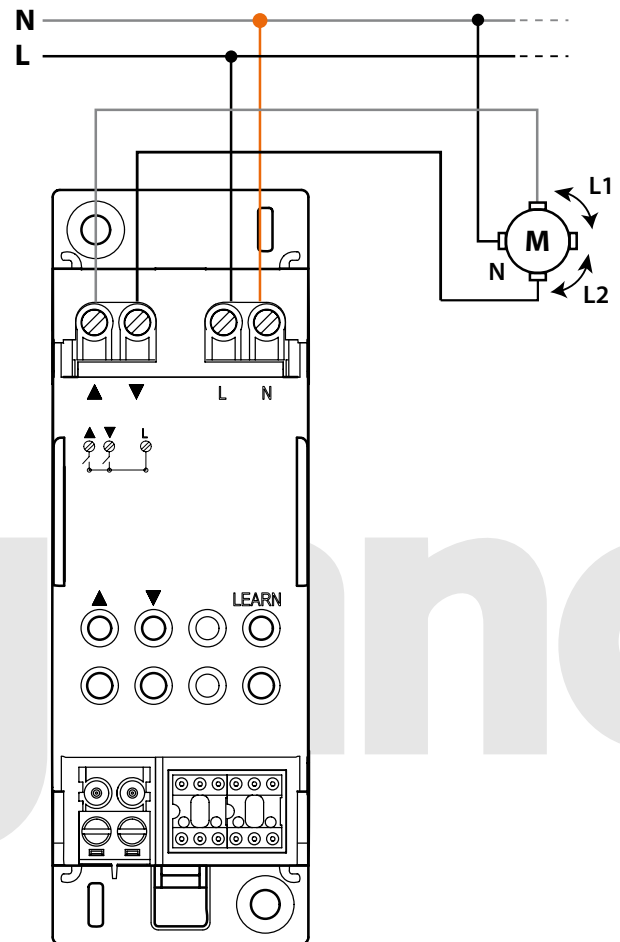
It applies to standard or pulse motors.

1. Press the configuration pushbutton for at least 3 seconds. The corresponding LED comes on.
2. Press and release the "UP" pushbutton. The shutter moves upwards and the "UP" LED comes on.
3. Once the shutter has reached the maximum opening position, press the "DOWN" pushbutton. The shutter will move downwards, and the "DOWN" LED will come on. During this stage, the actuator measures and saves the time it takes the shutter to close.
4. When the shutter is fully closed, press the "UP" pushbutton. The shutter moves upwards and the "UP" LED comes on. During this stage, the actuator measures and saves the time it takes the shutter to open.
5. Once the shutter maximum opening position has been reached, press the "DOWN" pushbutton again. The "UP" LED will turn off. The calibration procedure has now been completed; the LED associated to the configuration pushbutton will turn off, to confirm that the operation has been completed successfully.

**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.

### Wiring diagram

Standard motor with electronic limit switch



For standard motors with mechanical limit stop connect the neutral conductor

### Pulse motor

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