

Shutter actuator

F401

Use

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 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 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).

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

Technical data

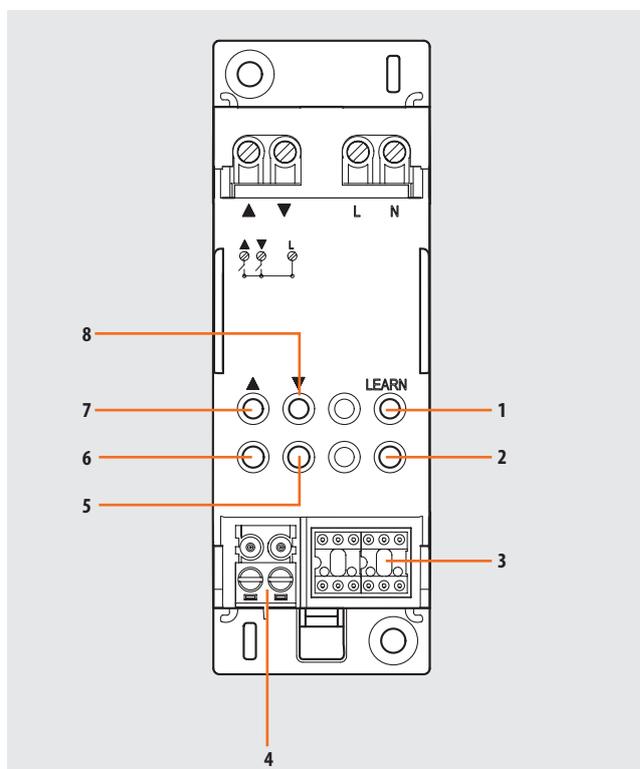
Power supply from BUS SCS:	27 Vdc
Operating power supply with SCS BUS:	18 – 27 Vdc
Max. absorption:	16 mA
Operating temperature:	0 – 40 °C
Power/Absorption of driven loads:	250 Vac - 2 A

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 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

Configuration

When installed in a MY HOME system, the device may be configured in two ways:

- PHYSICAL CONFIGURATION, by connecting the physical configurators to their sockets.
- VIRTUAL CONFIGURATION, by connecting the system to the PC using the Kit item 3504 or the Web server. The Virtual configurator software must be installed on the PC.

• PHYSICAL CONFIGURATION

On the front of the device are 6 sockets for the connection of the numerical configurators. The meanings of the positions are as follows:

A = room

PL = light point

M = operating mode (see following table)

Mode	Value configurator in M
Standard operation, based on the mode configured in the control device. After acquiring the two positions, closed and open shutter, it will be possible to manage 100 different positions.	none
As standard operation. The actuator ignores the Room and General controls	PUL
Slave device. The actuator follows the status of the Master actuator.	SLA

Type =	defines the type of motor to drive:
no configurator =	standard motor with automatic calibration.
configurator 1 =	standard motor with manual calibration.
configurator 2 =	pulse motor

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

Connecting the configurators:

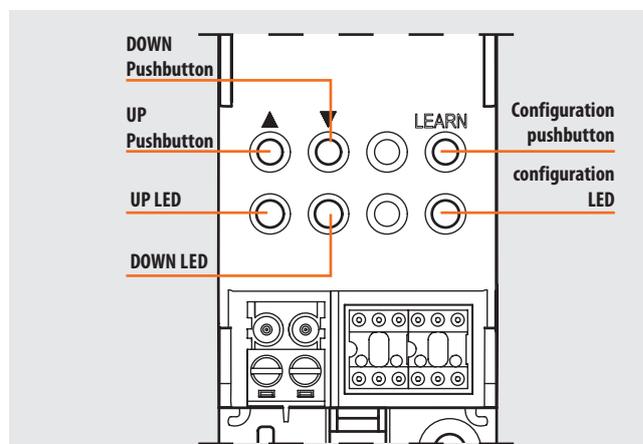
- 2 to the Type socket
- 9 to the Pre socket of the device, when the STOP pushbutton of the control is pressed while the shutter is still, the shutter moves to the position of the 3rd limit switch.

G1 and G2 = define the 1st and 2nd 1 to 9 groups of the actuators they belong to.

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.

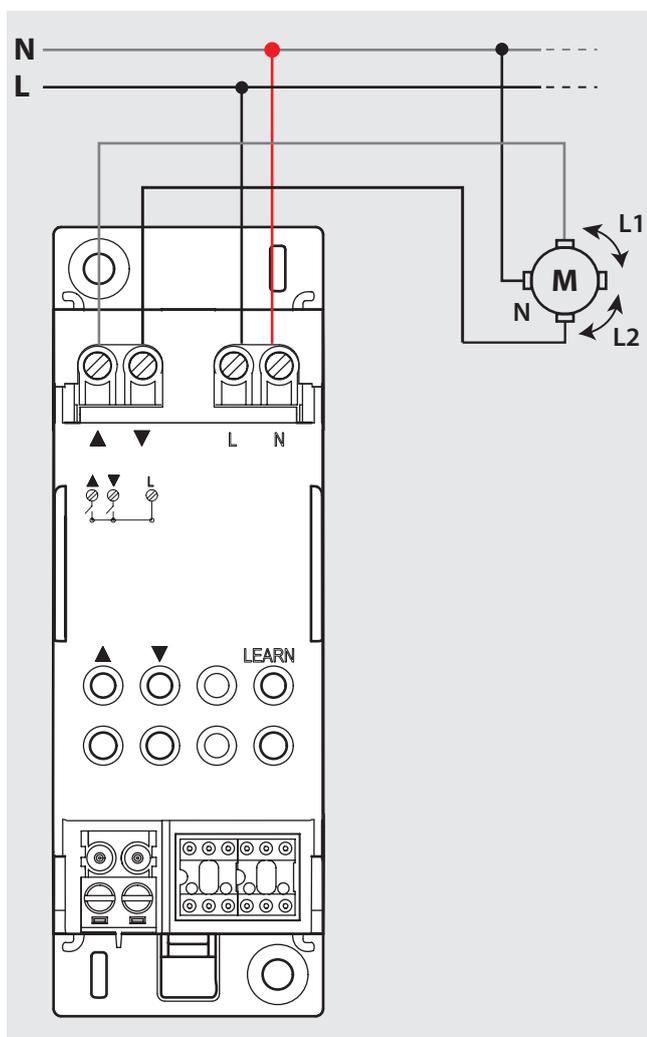
WARNING: the calibration precision, and therefore the control of the shutter position, depends on the accuracy with which the limit switch positions are manually detected during the calibration itself.

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Wiring diagram

Standard motor with electronic limit switch



Pulse motor

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

For standard motors with mechanic limit switch connect the neutral conductor