



# 4 relay actuator in DIN module

F411/4

### Description

Actuator for installation in DIN rail distribution boards or switchboards. This device incorporates four independent relays with a common clamp, for the activation of four loads, with local control pushbuttons for each individual load only active if the actuator has been configured.

The device can be installed as part of a MY HOME system, and configured physically or virtually. In this case if two adjoining positions (e.g. PL2 and PL3) are assigned the same configurator, the actuator may set two of the four relays in interlocking mode, for the control of loads such as rolling shutter motors, curtain motors, etc. If all the PL positions have the same configurator, the actuator sets the four relays for the control of motorised rolling shutters.

When installed as a component of the Lighting Management system, specific configuration procedures are used (Plug&go, Project&Download).

### Technical data

Power supply from BUS:	27 Vdc
Operating power supply with SCS BUS:	18 – 27 Vdc
Absorption:	40 mA
Number of outputs:	4x2 A
Power/Absorption of driven loads:	

Incandescent lamps Halogen lamp	Motor reducers for rolling shutters	LED lamp Compact fluorescent lamp	Linear fluorescent lamp Electronic transformer	Ferromagnetic transformers
230 Vac   460 W   2 A	460 W   2 A	70 W   Max. 2 lamps	70 W   0.3 A	2 A cosφ 0.5   460 VA

Dissipated power with max. load: 3.2 W<sup>1)</sup>  
 Operating temperature: (-5) – (+45) °C

NOTA: 1) the dissipated power indicated is that corresponding to the device with all the relays loaded at the maximum load.

With lower loads also the dissipated power is lower and may be calculated by means of the following formula:  $P[mW]=140+400*N+10*[Ic1+Ic2+...IcN]$

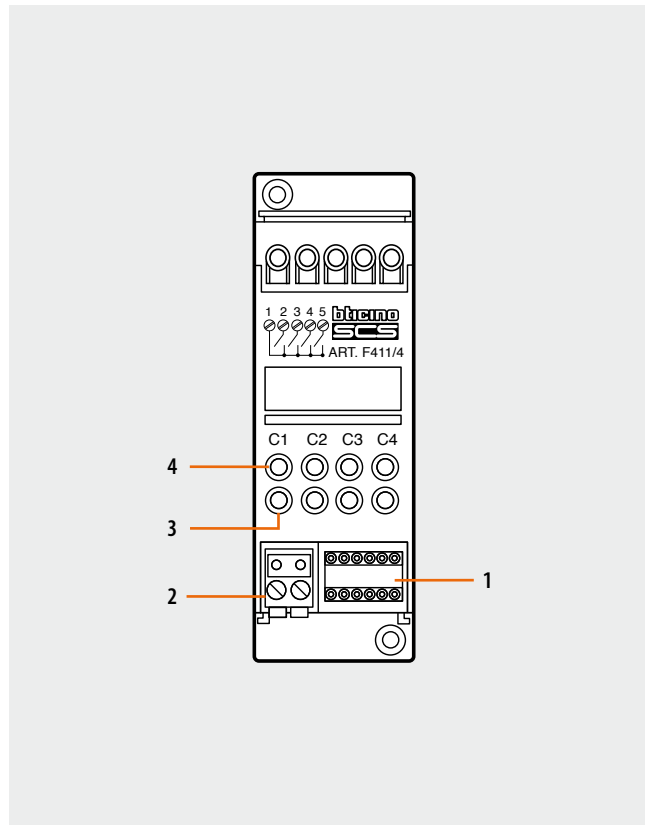
P: dissipated power in mW, N: no. of loaded relays, IcN: load current corresponding to the N relay.

### Dimensional data

Size: 2 DIN modules

### MY HOME 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 or the Web server. The Virtual configurator software must be installed on the PC.



### Legend

1. Configurator socket  
(attention, it must only be used in MY HOME systems with physical configuration)
2. BUS
3. LED
4. Pushbutton

**Physical configuration**

The actuator performs all the basic operating modes that can be configured directly on the control. Moreover further operating modes with the configurator in position M of the same actuator are listed in the table below.

Possible function	Configurator in M
Delayed stop for rolling shutter motor operation. The actuator deactivates after the time set has elapsed <sup>1)</sup> . This mode is only operative if PL...=PL...+1 (same configurators), i.e. with the two relays interlocked	none – 9 <sup>1)</sup>
Delayed stop for shutter motor operation. The actuator deactivates after the time set has elapsed. This mode is only operative if PL1=PL2=PL3=PL4, with interlocking of relays in pairs <sup>2)</sup>	none – 1, 2 or 3
Actuator as Slave. Receives a control sent by a Master actuator with has the same address	SLA
Pushbutton (ON monostable) ignores Room and General controls	PUL

1) The value of the configurator shown in the table determines the final time. At the end of this time, the actuator will deactivate.

**Example 1:**

A=1 PL1=3 PL2=5 PL3=5 PL4=2 M=none

In this case the relays (PL1) and (PL4) are activated on the basis of the mode defined by the controls configured A=1 PL=3 and A=1 PL=2. Relays (PL2) and (PL3) are interlocked and are activated by control A=1 and PL=5 with mode defined in M. Relays (PL2) and (PL3) deactivate after a minute.

**Example 2:**

A=1 PL1=3 PL2=2 PL3=4 PL4=6 M=none

In this case all the relays (PL...≠ PL...+1) and (PL4) activate on the basis of the mode defined by the controls configured A=1 PL=3, A=1 PL=2, A=1 PL=4 e A=1 PL=6. Whether there are configurators 1 to 4 in position M of the actuator or not makes no difference.

2) The value of the configurator shown in the table determines the final time. At the end of this time, the actuator will deactivate.

**Example:**

- if M=1, the total opening/closing operation time is 15 seconds.
- if M=3 the opening and closing operations are performed while the corresponding control is pressed.

Configurator	Time (minutes)
No configurator	1
1	2
2	5
3	10
4	infinite or until the next control
5	20 sec.
6	10 sec.
7	5 sec.
8	15 sec.
9	30 sec.

Configurator	Time (sec.)
No configurator	20
1	15
2	25
3	60

**Lighting Management configuration**

When installed in a Lighting Management system, the device can be configured in the following ways:

- Plug&Go
- Project&Download,

Using the Virtual Configurator software it is possible to perform all the functions listed below:

- light actuator

For more information on the functions see the glossary before the Technical sheets chapter.

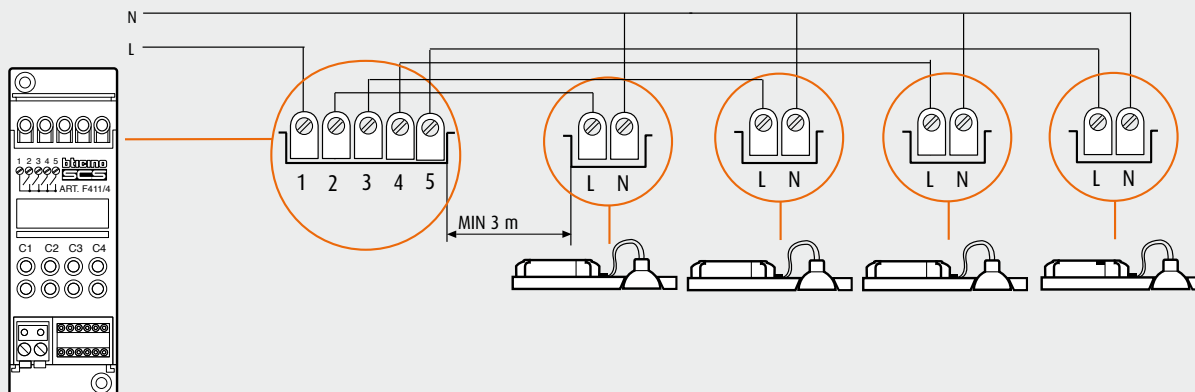
**Virtual configuration**

Using the Virtual Configurator software it is possible to perform all the functions listed below:

- light actuator
- rolling shutter actuator
- curtain actuator

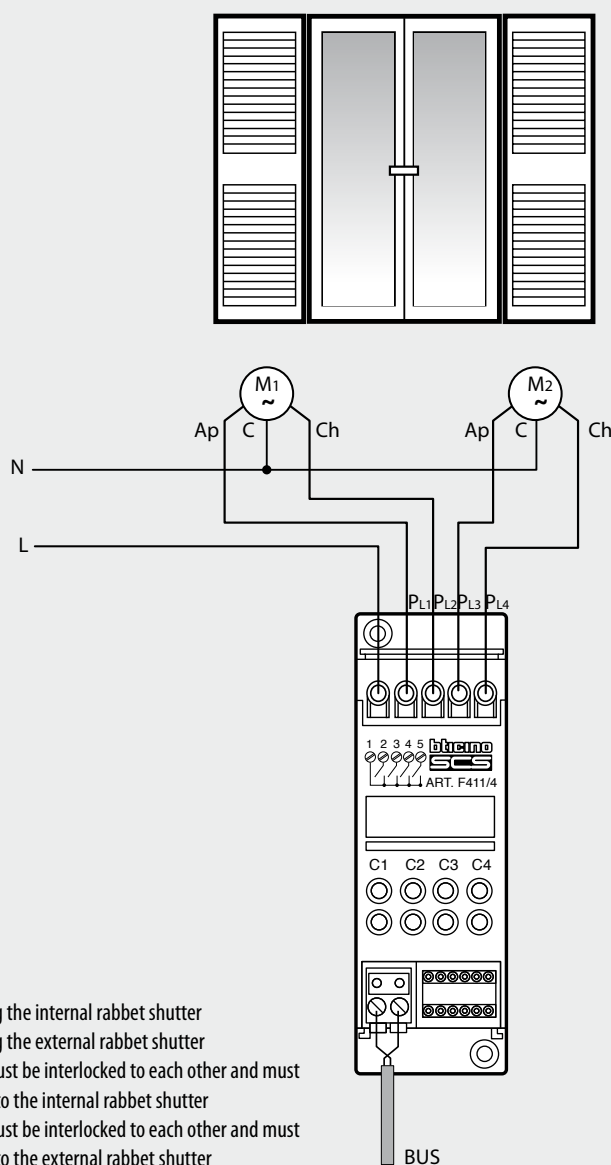
**Wiring diagrams**

Diagram for the connection of lighting devices



BT00276-b-UK

**Diagram for shutter movement control**



M1 = motor controlling the internal rabbit shutter  
 M2 = motor controlling the external rabbit shutter  
 PL1 - PL2 = contacts: they must be interlocked to each other and must always be fitted to the internal rabbit shutter  
 PL3 - PL4 = contacts: they must be interlocked to each other and must always be fitted to the external rabbit shutter

**WARNING: figure PL1 = PL2 = PL3 = PL4**

**Operation:**

- The opening of the shutter with external rabbit must start before the one with internal rabbit. The opening of PL1 will start 3 seconds after the start of PL3.
- The closing of the shutter with external rabbit must start after the one with internal rabbit. The closing of PL4 will start 3 seconds after the start of PL2.
- The total time for the full opening/closing of the shutters must be adjustable between 15 and 25 seconds. This adjustment is possible during installation, based on the size of the shutters, to allow for strong winds.