



The Shutter Actuator Standard RA/S 4.230.1 is used to control a maximum of four independent 230 VAC drives for positioning shutters, blinds, awnings and other hangings as well as for controlling doors, windows and ventilation flaps.

The Shutter Actuator Standard is a DIN rail mounted device for insertion in the distribution board. It is connected to the ABB i-bus® EIB via a Bus connection terminal.

The output contacts for the directions UP and DOWN are mechanically interlocked so that voltage cannot be applied at both contacts at the same time. The pause on change in direction can be set via the parameters.

Technical data

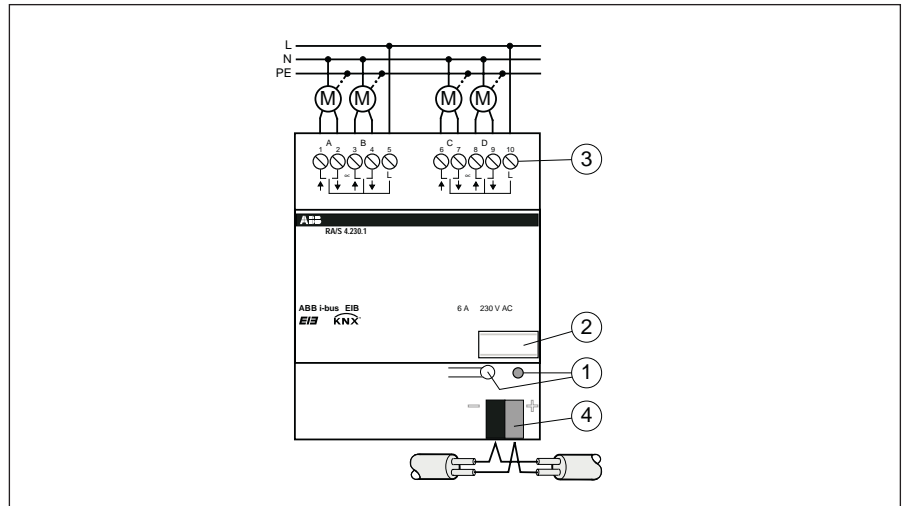
| | | |
|---------------------------------------|--|---|
| Power supply | – Operating voltage | 21...30 VDC, via the EIB |
| | – Current input | typ. 10 mA |
| | – Power consumption via EIB | < 250 mW |
| Outputs | – Number of outputs | 4 independent outputs, each with 1 changeover contact (UP/DOWN mechanically interlocked) |
| | – Nominal voltage | 230 VAC |
| | – Max. switching current | 6 A (AC1/AC3) at 230 VAC or 6 A (AC1/AC3) at 400 VAC |
| | – Min. switching current | 100 mA at 5 V or 10 mA at 10 V or 1 mA at 24 V |
| Operating and display elements | – Red LED and push button | for entering the physical address |
| Connections | – Load circuits | 2 screw terminals for phase connection (e.g. L1 and L2) 2 screw terminals per output for UP and DOWN Wire range: finely-stranded: 0.2 – 2.5 mm ² single-core: 0.2 – 4.0 mm ² Bus connection terminal (black/red) |
| | – EIB | |
| | – IP 20, EN 60 529 | |
| Type of protection | – Operation | – 5 °C ... + 45 °C |
| | – Storage | – 25 °C ... + 55 °C |
| Ambient temperature range | – Transport | – 25 °C ... + 70 °C |
| | – Design | – Modular installation device, proM |
| Housing, colour | – Plastic housing, grey | |
| Mounting | – on 35 mm mounting rail, DIN EN 50 022 | |
| Dimensions | – 90 x 72 x 64 mm (H x W x D) | |
| Mounting depth/width | – 68 mm/ 4 modules at 18 mm | |
| Weight | – 0.25 kg | |
| Mounting position | – as required | |
| Certification | – EIB- and KNX-certified | |
| CE norm | – in accordance with the EMC guideline and the low voltage guideline | |

Application programs

| | Max. number of communication objects | Max. number of group addresses | Max. number of associations |
|------------------------|--------------------------------------|--------------------------------|-----------------------------|
| Shutter Standard, 4f/1 | 9 | 254 | 254 |

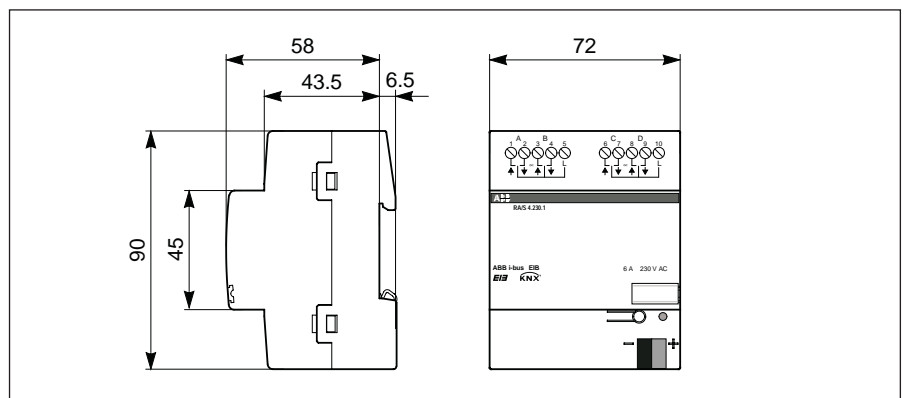
Circuit diagram

“Shutter” and “Blinds” operating modes



- 1 Programming LED, push button
- 2 Marker Tag
- 3 Connection terminals
- 4 Bus terminal

Dimension drawing



Note

The programming is carried out with ETS from version ETS2 V1.2a onwards.

To guarantee all the programmable functions, in particular the UP/DOWN directions of travel, it is important to ensure that the drive has been connected properly. The technical data supplied by the drive manufacturer must be taken into account!

If the outputs are switched several times in rapid succession, the switching of the output contacts is delayed.

The following process should be carried out during the initial commissioning of the shutter actuator:

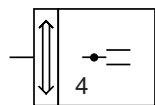
1. Install and wire up the shutter actuator.
2. **First** connect the EIB voltage.
The output contacts automatically adopt the neutral position.
3. Only **then** connect the 230 VAC operating voltage for the shutter outputs.



If the preselected parameter settings have been modified during programming, the output contacts adopt the specified Position on bus voltage recovery once the EIB voltage has been connected.

The Shutter Actuator Standard is supplied with a downloaded application program. It is therefore only necessary to download the group addresses and parameters during commissioning. The complete application program can also be downloaded if required.

Shutter Standard, 4f/1



Selection in ETS2

- ABB
- └ Shutter
- └ Switch

Communication objects

Move shutter Up-Down**Move blinds Up-Down**

If a telegram with the value "0" is received at this communication object, the shutter/blind is raised. If a telegram with the value "1" is received, the shutter/blind is lowered. The output contact reverts to the neutral position once the total travel time has elapsed.

Telegram value:

- "0": UP
- "1": DOWN

Louvre adj./Stop Up-Down**Stop Up-Down**

If the shutter/blind is in motion, the movement is stopped on receipt of a telegram at this communication object, regardless of whether a "0" or a "1" is received.

"Blinds" operating mode: If the shutter is idle, it is raised ("0") or lowered ("1") for the duration of the louvre adjustment and then stopped on receipt of a telegram at this object.

"Shutter" operating mode: If the blind is idle, no action is carried out on receipt of a telegram at this communication object.

Telegram value:

- "0": Stop/louvre adj. UP
- "1": Stop/louvre adj. DOWN

Wind alarm

This communication object expects cyclical telegrams. If a telegram with the value "0" is received within the monitoring period, the outputs can be controlled.

If no telegrams or a telegram with the value "1" are received during the monitoring period, the shutters/blinds are moved to the set *Position for wind alarm*. Operation is disabled.

If a telegram with the value "0" is received again for the first time after a weather alarm or once the monitoring period has been exceeded, the shutters/blinds are moved to the *Position on reset of wind alarm* and operation is enabled again.

The monitoring period is restarted after each receipt of a telegram, after the programming of the actuator and on bus voltage recovery.

If the parameter *Position for wind alarm* has been set to "no reaction", a wind alarm is not carried out for the respective output and the cyclical monitoring of the object is not taken into account.

Telegram value:

- "0": No alarm
(operation enabled)
- "1": Alarm (operation blocked)

Parameters

Wind alarm

If the option "activated" is selected, the communication object "Wind alarm" appears.

Monitoring period for wind alarm [s]

For setting the monitoring period for the wind alarm in seconds. The monitoring period in the Shutter Actuator should be at least twice as long as the cyclical sending time of the sensor so that the shutters/blinds are not immediately moved to the alarm position due to the negligible omission of a signal (e.g. due to a high bus load).

If the value of this parameter is set to "0", the monitoring of the communication object is deactivated.

Operating mode

The operating mode is set via this parameter. The communication objects and the parameters for the respective output differ depending on the operating mode.

Position on bus voltage failure

For setting the behaviour on bus voltage failure. If the option "no reaction" is set, the output contacts remain in their current position. In the option "Stop", the shutter/blind is halted immediately. The output contact reverts to the neutral position.

Position on bus voltage recovery

For setting the behaviour on bus voltage recovery. If the option "no reaction" is set, the output contacts remain in their current position. In the option "Stop", the shutter/blind is halted immediately. The output contact reverts to the neutral position. If the option "Position X" is selected, the shutter/blind first moves right to the top after bus voltage recovery (reference movement) before it travels to the set position.

Position after programming and bus reset

For setting the behaviour after programming or bus reset. If the option "no reaction" is set, the output contacts remain in their current position. In the option "Stop", the shutter/blind is halted immediately. The output contact reverts to the neutral position. If the option "Position X" is selected, the shutter/blind first moves right to the top after programming (reference movement) before it travels to the set position.

Total travel time [s]

For setting the total travel time in seconds.

Duration of louvre adjustment [ms]

(only in the "Blinds" operating mode)
For setting the duration of louvre adjustment in milliseconds.

Pause on change in direction [ms]

For setting the pause on change in direction in milliseconds.



The technical data supplied by the manufacturer of the drive must be taken into account!

Position for wind alarm

For setting the behaviour in the event of a wind alarm. In the option "Stop", the shutter/blind is halted immediately. The output contact reverts to the neutral position. If the option "no reaction" is set, the current movement is carried out in full. If the option "deactivated" is selected, this output does not react to a wind alarm or to the monitoring period of the wind alarm.

“Direct” communication objects

in “Blinds” operating mode
using “Output A” as an example

| No. | Type | Object name | Function |
|-----|-------|-------------|----------------------------|
| 11 | 1 bit | Output A | Move blinds Up-Down |
| 12 | 1 bit | Output A | Louvre adj. / Stop Up-Down |

“Direct” communication objects

in “Shutter” operating mode
using “Output A” as an example

| No. | Type | Object name | Function |
|-----|-------|-------------|----------------------|
| 11 | 1 bit | Output A | Move shutter Up-Down |
| 12 | 1 bit | Output A | Stop Up-Down |

“Wind alarm” communication objects

All operating modes
General for all outputs A...D

| No. | Type | Object name | Function |
|-----|-------|--------------|------------|
| 1 | 1 bit | Output A...D | Wind alarm |

General parameters

General for all outputs A...D.
The default setting for the values is
printed in bold type.

| “General” parameter window | | |
|--|--|-------------------------------|
| – Wind alarm | | activated/ deactivated |
| – Monitoring period for wind alarm [s] | | 0..1,000 (0) |

Parameters

Separate for each output.
The default setting for the values is
printed in bold type.

| “A-General” parameter window | | |
|--|--|--|
| – Operating mode | | Blinds/Shutter |
| – Position on bus voltage failure | | Up/Down/ Stop /no reaction |
| – Position on bus voltage recovery | | Up/Down/ Stop /no reaction |
| – Position after programming or bus reset | | Up/Down/ Stop /no reaction |
| – Total travel time [s] | | 0..6,000 (60) |
| Only if “Operating mode” = “Blinds” | | |
| – Duration of louvre adjustment [ms] | | 50..1,000 (200) |
| – Pause on change in direction | | 50..10,000 (500) |
| – Position for wind alarm | | Up/Down/Stop/no reaction/ deactivated |