# Shutter actuator 4 channels

Shutter actuator is interconnected in KNX network in order to control 4 shutter groups with following features:

- Widely distributed shutter motors are supported without any additional logic elements needed

- Protection from simultaneous operation in two opposite directions

- Limitation of the work duration of the motor

- Adjustable time delay of reverse and reswitching
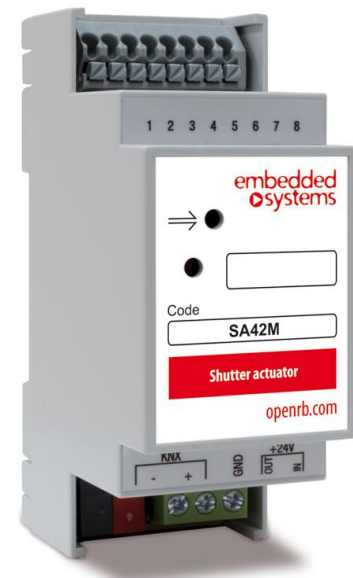
ENG - Data sheet
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Application

HVAC

Types of product

Fancoil actuator	SA42M

Standards and norms compliance

EMC:	EN61000-6-1
	EN61000-6-3
PCT	Certificate

Technical data:

Power supply:	29V DC from KNX/EIB bus	
Power consummation:	0.25W	
Interface:	KNX	1
	Shutter outputs	4 x 2 (2 outputs per one shutter)
Outputs	Type	Digital
	Max continuous current	380 mA

Connections:	KNX	Bus Connection Terminal 0.8mm2
	Outputs	Clamp, 1.5mm2
Operating elements	LED	1 - Activity
Enclosure:	Material:	Polyamide
	Color:	Gray
	Dimensions:	36(W)x91(H)x56(L) mm

Usage temperature:	0C ... +45C
Storage temperature:	-15C ... +55C
Weight:	50g
Warranty:	2 years
Relative Humidity:	10...95 % without condensation

⚠️ **Caution**
Security advice

The installation and assembly of electrical equipment may only be performed by skilled electrician. The devices must not be used in any relation with equipment that supports, directly or indirectly, human health or life or with application that can result danger of people, animals or real value

Mounting advice

The devices are supplied in operational status. The cables connections included can be clamped to the housing if required.

Electrical connection

The devices are constructed for the operation of protective low voltage (SELV). Grounding of device is not needed. When switching the power supply on or off, power surges must be avoided.

1. Connection diagram
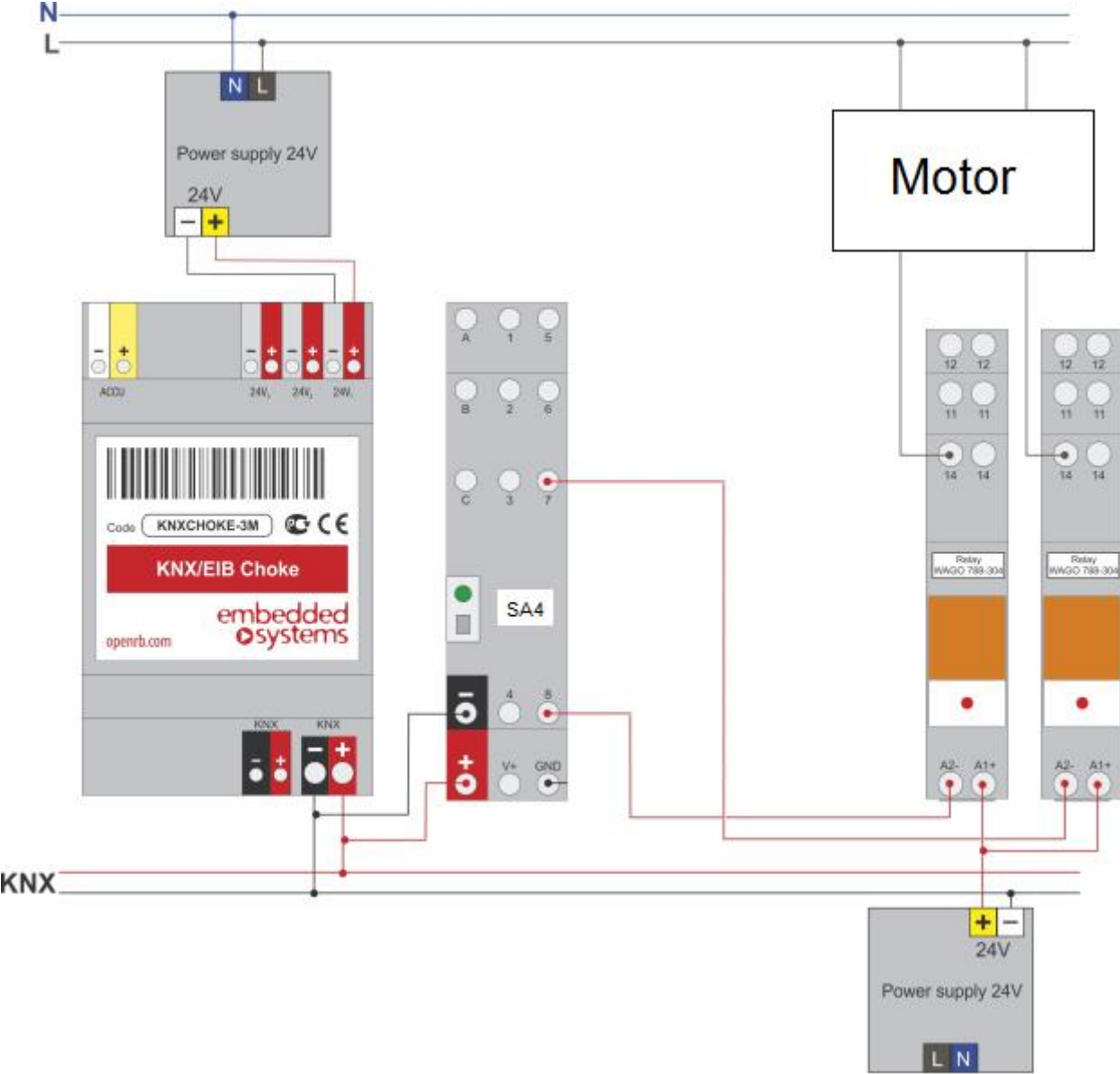
2. Shutter requirements

Shutter control interface should consist of 2 discrete inputs. Each of inputs is supposed to operate the movement of motor in one of directions. It is assumed that during inactive state of SA42M the motor should be in Stop position.

SA42M automatically protects against simultaneous activation of one channel's both outputs and limits maximum active state to prevent overloading.

3. Default settings

To reset the device to default settings, press and hold programming button for more than 10 seconds. Programming LED will blink several times after releasing the programming button. The device will restart automatically after the reset is complete.

4. Default state of the device

Factory-new devices have the physical address 1.1.255, no group addresses. Shutter group default settings: *Movment, A:Up/Stop B:Down/Stop*

5. ETS configuration

Note! All settings should be set in accordance with motor manufacturer's requirements otherwise unstable operation is possible or even damage of equipment.
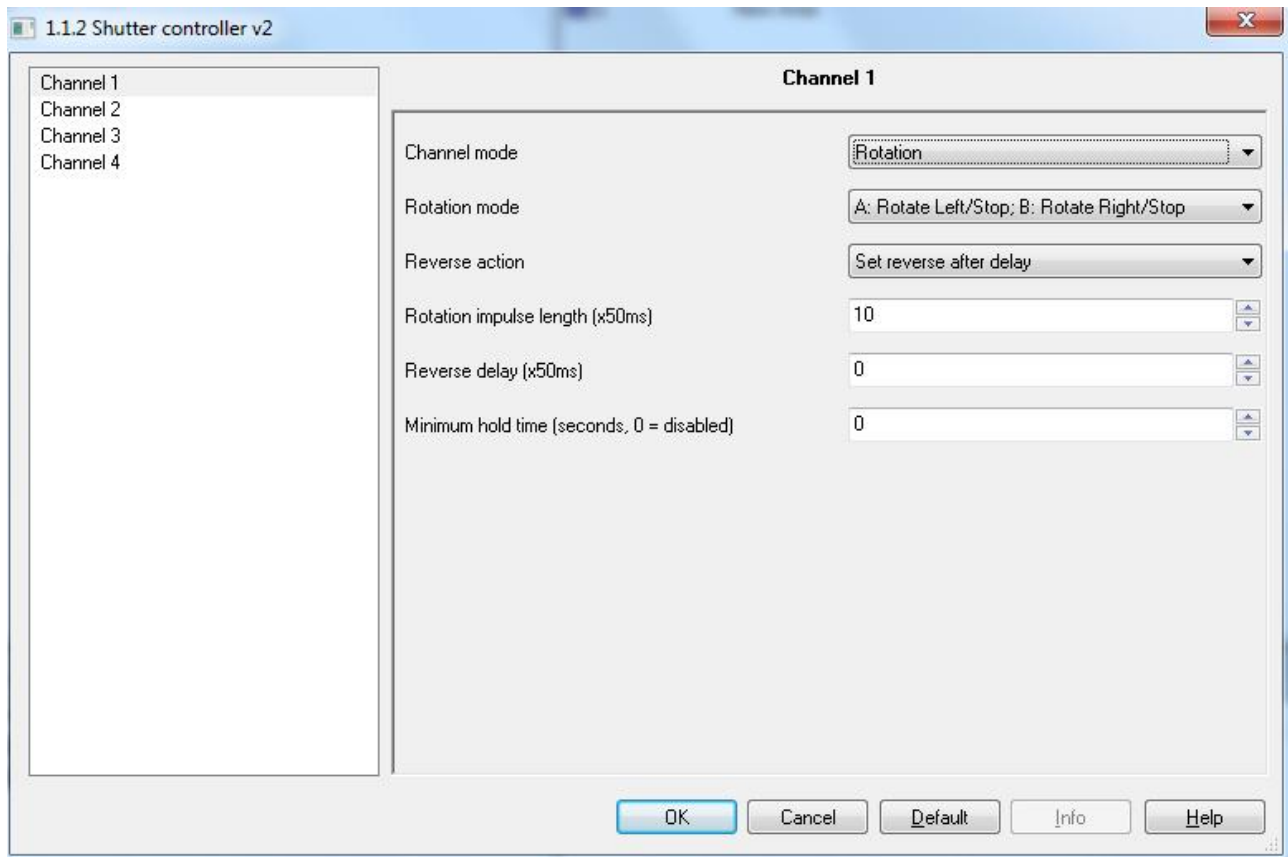
Movement mode

Movement mode – prolonged movement, ability to move the shutter from lock to lock for 1 cycle e.g. for curtain/shutter motor control mechanism.
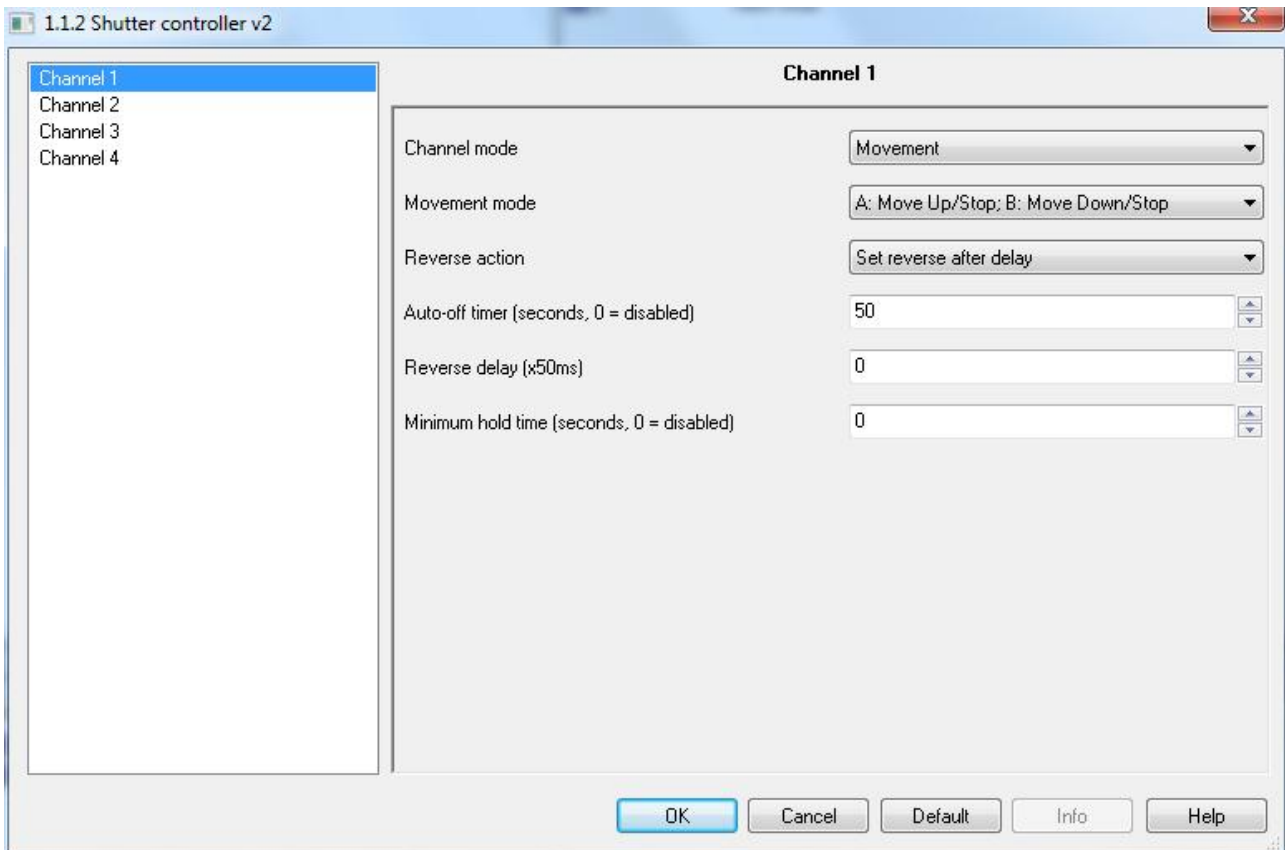
- *Channel mode [Movement; Rotation]* – shutter channel mode
- *Movement mode* – A: Move Up/Stop; B: Move Down/Stop or A: Move Up/Down; B: Stop
- *Reverse action [Set reverse after delay; Stop]* – action on reverse movement command
- *Auto-off timer (seconds, 0=disabled) [0..120]* – time after which to disable movement. Is useful for motors which don't have end-position switcher
- *Reverse delay (x50ms) [0..120]* – delays the activation of the output while the set time has not passed since deactivation of movement in opposite direction
- *Minimum hold time (seconds, 0=disabled) [0..10]* –delays the activation of any output for specific time period since Reverse command activation or Stop command

Rotation mode

Rotation mode – Impulse control, the motor automatically stops after short period of time (step), which in some cases gives a possibility of accurate positioning e.g. in blinds.

- *Channel mode [Movement; Rotation]* – shutter channel mode
- *Rotation mode* – A: Rotate Left/Stop; B: Rotate Right/Stop or A: Rotate Left/Right; B: Stop
- *Reverse action [Set reverse after delay; Stop]* – action on reverse rotation command
- *Rotation impulse length (x50ms) [2..120]* – time period after which the last activated output for specific channel will be automatically deactivated (motor completes one step)
- *Reverse delay (x50ms) [0..120]* – delays the activation of the output while the set time has not passed since deactivation of movement in opposite direction
- *Minimum hold time (seconds, 0=disabled) [0..10]* – delays the activation of any output for specific time period since Reverse command activation or Stop command

6. Objects

Nr.	Object	Name	Type	Priority	Read	Write	Transmit
0	Channel 1 - A	In: Movement - Up/Down	1.* Boolean (1.001 switch)	Low	-	W	-
0	Channel 1 - A	In: Movement - Up/Stop	1.* Boolean (1.001 switch)	Low	-	W	-
0	Channel 1 - A	In: Rotation - Left/Right	1.* Boolean (1.001 switch)	Low	-	W	-
0	Channel 1 - A	In: Rotation - Left/Stop	1.* Boolean (1.001 switch)	Low	-	W	-
1	Channel 1 - B	In: Movement - Down/Stop	1.* Boolean (1.001 switch)	Low	-	W	-
1	Channel 1 - B	In: Movement - Stop	1.* Boolean (1.001 switch)	Low	-	W	-
1	Channel 1 - B	In: Rotation - Right/Stop	1.* Boolean (1.001 switch)	Low	-	W	-
1	Channel 1 - B	In: Rotation - Stop	1.* Boolean (1.001 switch)	Low	-	W	-
2	Channel 2 - A	In: Movement - Up/Down	1.* Boolean (1.001 switch)	Low	-	W	-
2	Channel 2 - A	In: Movement - Up/Stop	1.* Boolean (1.001 switch)	Low	-	W	-
2	Channel 2 - A	In: Rotation - Left/Right	1.* Boolean (1.001 switch)	Low	-	W	-
2	Channel 2 - A	In: Rotation - Left/Stop	1.* Boolean (1.001 switch)	Low	-	W	-
3	Channel 2 - B	In: Movement - Down/Stop	1.* Boolean (1.001 switch)	Low	-	W	-
3	Channel 2 - B	In: Movement - Stop	1.* Boolean (1.001 switch)	Low	-	W	-
3	Channel 2 - B	In: Rotation - Right/Stop	1.* Boolean (1.001 switch)	Low	-	W	-
3	Channel 2 - B	In: Rotation - Stop	1.* Boolean (1.001 switch)	Low	-	W	-
4	Channel 3 - A	In: Movement - Up/Down	1.* Boolean (1.001 switch)	Low	-	W	-
4	Channel 3 - A	In: Movement - Up/Stop	1.* Boolean (1.001 switch)	Low	-	W	-
4	Channel 3 - A	In: Rotation - Left/Right	1.* Boolean (1.001 switch)	Low	-	W	-
4	Channel 3 - A	In: Rotation - Left/Stop	1.* Boolean (1.001 switch)	Low	-	W	-
5	Channel 3 - B	In: Movement - Down/Stop	1.* Boolean (1.001 switch)	Low	-	W	-
5	Channel 3 - B	In: Movement - Stop	1.* Boolean (1.001 switch)	Low	-	W	-
5	Channel 3 - B	In: Rotation - Right/Stop	1.* Boolean (1.001 switch)	Low	-	W	-
5	Channel 3 - B	In: Rotation - Stop	1.* Boolean (1.001 switch)	Low	-	W	-
6	Channel 4 - A	In: Movement - Up/Down	1.* Boolean (1.001 switch)	Low	-	W	-
6	Channel 4 - A	In: Movement - Up/Stop	1.* Boolean (1.001 switch)	Low	-	W	-
6	Channel 4 - A	In: Rotation - Left/Right	1.* Boolean (1.001 switch)	Low	-	W	-
6	Channel 4 - A	In: Rotation - Left/Stop	1.* Boolean (1.001 switch)	Low	-	W	-
7	Channel 4 - B	In: Movement - Down/Stop	1.* Boolean (1.001 switch)	Low	-	W	-
7	Channel 4 - B	In: Movement - Stop	1.* Boolean (1.001 switch)	Low	-	W	-
7	Channel 4 - B	In: Rotation - Right/Stop	1.* Boolean (1.001 switch)	Low	-	W	-
7	Channel 4 - B	In: Rotation - Stop	1.* Boolean (1.001 switch)	Low	-	W	-
8	Output 1	Out: Status	1.* Boolean (1.001 switch)	Low	R	-	T
9	Output 2	Out: Status	1.* Boolean (1.001 switch)	Low	R	-	T
10	Output 3	Out: Status	1.* Boolean (1.001 switch)	Low	R	-	T
11	Output 4	Out: Status	1.* Boolean (1.001 switch)	Low	R	-	T
12	Output 5	Out: Status	1.* Boolean (1.001 switch)	Low	R	-	T
13	Output 6	Out: Status	1.* Boolean (1.001 switch)	Low	R	-	T
14	Output 7	Out: Status	1.* Boolean (1.001 switch)	Low	R	-	T
15	Output 8	Out: Status	1.* Boolean (1.001 switch)	Low	R	-	T