



### KNX MCU-09

#### Actuator for 9 motors

##### Product description

Actuator for the electronic operation of venetian and canvas blinds, awnings, roller shutters or windows.

##### Security advices

- Equipment connection and start-up shall be carried out by authorized skilled electricians only.
- For installation, assembly, operating and accident prevention please comply with the regional provisions in force.
- The device shall be disconnected prior to connection and maintenance operations.
- Do not start the device in case of dangerous situation, but rather set it out of service.
- The device shall be used for the intended use only and according to the specified technical data.
- The wiring of control section and BUS must meet SELV requirements.

##### Instructions for installation

###### Local control

- Upper end position: long keypress AUF (> 0,4 s)
- Lower end position: long keypress AB (> 0,4 s)
- Shading position: long keypress AB (> 0,4 s), immediately followed by short keypress AB (< 0,4 s)
- Stop: short keypress in opposite direction (< 0,4 s)
- Move slats: short keypress when stationary (< 0,4 s)

###### Status display of the local control

- LED flashing: manual operation locked out – security lock-out
- LED on: automatic lock-out set

##### Configuration

- The configuration is made through the Konnex association's ETS3 or later (Engineering Tool Software). For any detail as to adjustments and functions please refer to the relevant guide on-line.
- By means of the programming key it is possible to enable or disable the programming mode. The programming LED shows the mode concerned. If the LED is off, there is no BUS tension. The physical address can be programmable only with LED on.

##### Starting-up

- Check the device, terminals and connections (visual control)
- The motors shall not be connected in parallel.
- Activate the power supply. Check on the device the tension and LED state.
- Through the unit test key check the operation and direction of the device.
- Should the rotation direction be wrong, carry out the correct connection of the motor. Same function as the local control.
- After the test move venetian blinds, awnings, façade awnings, roller shutters or windows to the safety final position (usually upwards).
- Mount all covers; apply special labels, if necessary; update the technical documentation.



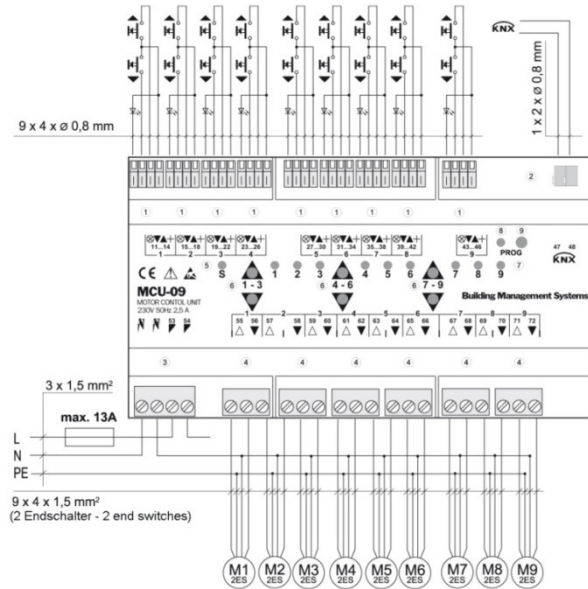
##### Technical Details



<b>Connections</b>	<b>Voltage range</b>	230 V AC $\pm$ 10 %
	<b>Frequency range</b>	50Hz
	<b>Cable</b>	3 wires (L, N, PE), 1,5 mm <sup>2</sup> , single of fine wire circuit breaker max. 13 A
<b>Motor connection</b>	<b>Fuse protection</b>	IP 10
	<b>Motor type</b>	asynchronous motor 230 V AC, 50 Hz, max. 2,5 A with 2 end switches
	<b>Power factor</b>	> 0,9
<b>Environment</b>	<b>Cable</b>	4 wires (AUF, AB, N, PE), 1,5 mm <sup>2</sup> , single or fine wire. Neutral conductor of the motor can be lead singly or together.
	<b>Operation area</b>	dry rooms 0° to +50°C pollutional index 2
	<b>Local control</b>	
<b>KNX</b>	<b>Circuit</b>	SELV (12 V / 20 mW)
	<b>Cable</b>	4 wires (AUF, AB, LED, +), $\varnothing$ 0,8 mm, single wire, twisted, cable length max. 100 m, use potential-free contacts
	<b>Connecting clamp</b>	$\varnothing$ 0,5 ... 0,8 mm, fine wire
<b>General</b>	<b>Bus connection</b>	according to KNX standard
	<b>Mounting</b>	on top hat rail 35 mm or comparable
	<b>Dimensions</b>	9 TE/ 158 x 58 x 89 mm (LxWxH)
	<b>Gewicht</b>	480 g



### Connection plan



### Legend

#### Connections

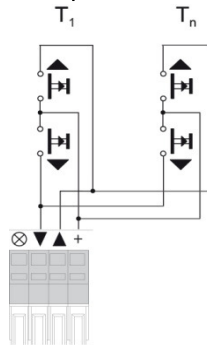
- ① M1... M9 local operation
- ② BUS KNX bus
- ③ L, N, PE power supply
- ④ M1... M9 motors
- ▲ AUF upper end position
- ▼ AB, AB2 lower end position
- + common connection for control unit (12 V DC)

#### Operation and display

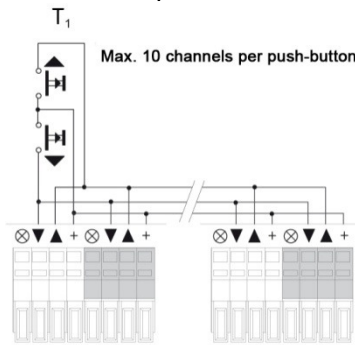
- Ⓢ S Status LED
- Ⓜ group test-button
- ⑦ 1... 9 LED for motor status
- Ⓟ PROG -LED for programming
- Ⓟ PROG push-button for programming
- LED Status display of local operation (1,6 mA / 20 mW)
- T push-button or switch for operation

**Caution! Incorrect connection can seriously damage the device!**  
The neutral conductor of the motor can be connected singly or together.

### Wiring of several control sections to one local operation connection:



### Wiring of one control section to several local operation connections:



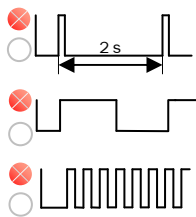
Local control with status display:  
Only one LED allowed. Do not link LED connections to each other.

### Display at the device LED for the motor status

normal operation,  
power supply present

manual operation locked out  
or security lock-out enabled

check motor or supply line



If LED is on, the automatic lock-out is set.  
If LED is off, the channel is switched off.

### Programming LED

If LED is on, the device is in the programming modus.

### Legend

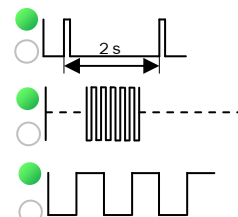
- ⊗ red LED active
- ⊙ green LED active
- LED off

### Status LED

normal operation,  
power supply present

telegram being received

no bus supply present



If the LED is red, a device error is given.