Technical data	AKR-IO86.01S	AKR-IO108.01S
Number of outputs	6	8
Inrush current	600 A (150 µs) / 250 A (600 µs)	
Total current carrying capacity of the actuator	50 A	
Nominal voltage Un	230 V AC *1	
Nominal Current In and Capacitive Load (per output)	16 A / 140 µF	
Load: Motor	600 W	
Load: Incandescent lamp load	2500 W	
Load: Halogen lamps HV / LV	2500 W / 1500 W	
Load: Fluorescent lamp un / parallel compensated	2300 W / 1500 W	
Max. number of ECG	20	
Number of universal inputs	8 *2	10 *2
Input Voltage (internally generated)	12 V DC	
KNX Medium	TP-256 with long frame support	
KNX Application	as of ETS 5 (latest Version)	
KNX secure	KNX Data secure	
KNX Connection Type	KNX Terminal	
KNX Cross cable section	0,6 ... 0,8 mm, solid conductor	
Typical power consumption KNX bus	≤ 1 W	
Connection type / cross section	Screw terminal with slotted head – 0,5 ... 2,5 mm²	
Screw terminal tightening torque	0,5 Nm	
Ambient operating temperature	0 ... 45 °C	
Humidity	< 95 %	
Protection classification	IP20	
Installation width	4 SU (72 mm)	

Mixed operation of nominal and safety extra low voltage (SELV) within the actuator is not permitted!
Each input can be used as a binary input, PT1000 input, or NTC input.

Operating instructions KNX Room Actuator, 4 SU, 16 A, 140 µF, Secure

for authorised electricians only

■ AKR-IO86.01S ■ **AKR-IO108.01S**

Important safety notes

Danger High Voltage

The relevant standards, directives, regulations and instructions must be observed. The devices are respectively marked with the CE and UKCA symbols. **Use in USA and Canada is prohibited.**

After Installation and connecting mains power supply the outputs can be alive.

After installation a KNX bus telegram can switch the outputs alive.

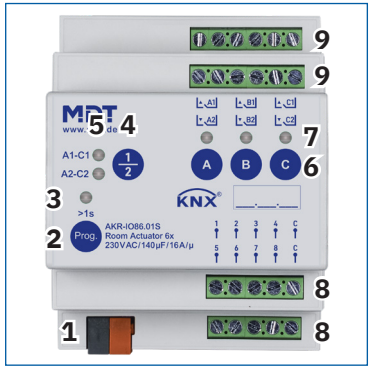
Disconnect the mains power supply prior to installation or disassembly.

Between KNX bus cables and 230 V cables the minimum gap has to be 4 mm. The applicable standards and regulations must be observed.

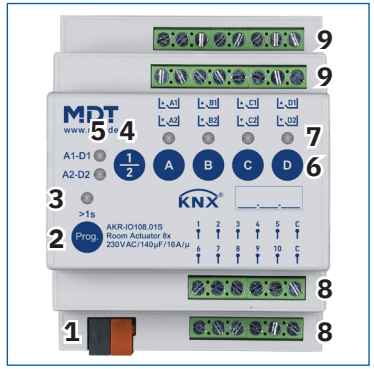
All terminals and connections must be completely covered after installation in accordance with the applicable regulations and standards.

Operating

AKR-IO86.01S



AKR-IO108.01S



1 – KNX Bus connection Terminal

2 – Programming button

3 – Programming LED

4 – Button for operating level

5 – LED status – Operating level

6 – Buttons for manual operation

7 – Channel LED

8 – Connection terminal for inputs

9 – Connection terminal for outputs

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Stand: 12/25

Manual controls and LEDs

Button	Usage	
Prog	> 1 s	Switches the device to programming mode.
	10 s + 5 s	Resets the device to factory settings
1/2	Allows you to set whether outputs A1 ... C1 (D1) or outputs A2 ... C2 (D2) manually can be switched. The selection is indicated by the LED “A1 - C1 (D1)” or “A2 - C2 (D2)”.	
A ... D	Switches the output. Repeated actuation switches the output state off or changes it, depending on the configuration.	

LED	Colour	Function
Programming LED	Red	The device is in programming mode.
A1 - C1 (D1)		The outputs of the A1 ... C1 (D1) level can be switched manually using the A ... C (D) buttons. The respective status of the outputs is indicated by the LEDs A ... C (D).
A2 - C2 (D2)		The outputs of the A2 ... C2 (D2) level can be switched manually using the A ... C (D) buttons. The respective status of the outputs is indicated by the LEDs A ... C (D).
A ... C (D)		Indicates the switching status of the output in the selected level.

Reset to factory settings

If the device was already in use or if the initial start-up failed, it must be reset to the factory settings according to the following procedure.

1. Press the programming Button for at least 10 seconds. The programming LED will start flashing.
2. Release the button and press it again for 5 seconds until the programming LED flashes rapidly. The LED switches off by releasing the button.
3. The device resets and restarts.

Installation

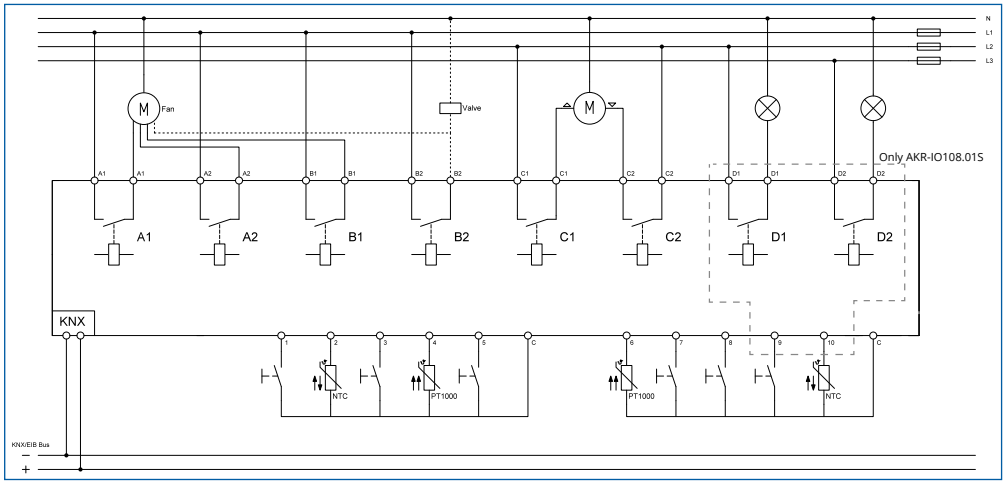
1. Mount the device on a 35 mm DIN rail.
2. Wire the switch actuator according to the diagram. The switching contacts must be fused with a circuit breaker.
3. Connect the device to the KNX bus.
4. Switch up mains power supply.

Commissioning

Note: The KNX application is available at www.mdt.de\downloads.html and in the ETS online catalogue.

1. Assign the physical address and set parameters within the ETS.
2. Download the individual address and the application program into the device.
   Press the programming button for at least 1 second when prompted.
3. After successful programming the red LED is switched off.

Wiring diagram



Usage	Inputs
Binary inputs such as switches ...	C - 1; C - 2; C - 3; C - 4; C - 5; C - 6; C - 7; C - 8; C - 9; C - 10
NTC temperature sensor	
PT1000 temperature sensor	

Usage	Outputs
E.g. lamps	A1; A2; B1; B2; C1; C2; D1; D2
Shutters and blinds	A1 - A2; B1 - B2; C1 - C2; D1 - D2
Fan coil	A1 - B2

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