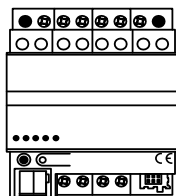


SpaceLogic KNX Analogue actuator REG-K/4-gang

Operating instructions



Art. no. MTN682291

Necessary accessories

- Power supply REG, AC 24 V/1 A
(Art. no. MTN663529)

The actuator requires an external power supply to operate. This can supply a connected analogue actuator module or additional devices.

Accessories

- Analogue actuator module REG/4-gang
(Art. no. MTN682292)

For your safety

⚠ ⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Safe electrical installation must be carried out only by skilled professionals. Skilled professionals must prove profound knowledge in the following areas:

- Connecting to installation networks
- Connecting several electrical devices
- Laying electric cables
- Connecting and establishing KNX networks
- Safety standards, local wiring rules and regulations

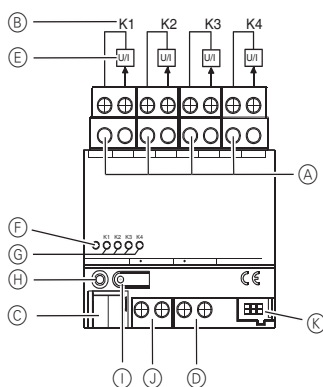
Failure to follow these instructions will result in death or serious injury.

Getting to know the actuator

The analogue actuator REG-K/4-gang (referred to below as the **actuator**) has 4 analogue outputs and converts KNX telegrams (1 byte and 2 bytes) into analogue output signals.

- These analogue output signals enable heating, air conditioning and ventilation system actuators to adapt their output variables based on bus information and to participate in control processes.
- The outputs are parameterised to voltage or current signals using software.
Voltage outputs: 0 to 1 V, 0 to 10 V
Current outputs: 0 to 20 mA, 4 to 20 mA
- Voltage outputs are monitored for short circuits.
- The output status is indicated by the status LEDs.
- The analogue actuator module 4-gang, art. no. MTN682292 can be used to expand the number of analogue outputs by 4 outputs to 8 outputs. Connections are made using a system plug.
- The output variables can be prioritised.
- Outputs that are not required can be switched off.
- For installation on DIN rails EN 50022.
- The bus is connected using a bus connecting terminal; a data rail is not necessary.

Connections, displays and operating elements



- (A) Reference potential for outputs K1 to K4
- (B) Analogue outputs K1 to K4
- (C) Bus connecting terminal
- (D) External supply voltage for analogue actuator module
- (E) Analogue actuators (e.g. analogue actuators etc.)
- (F) Status LED, three colours (red, orange, green)
- (G) Status LEDs of the four analogue outputs (yellow)
- (H) Programming LED
- (I) Programming button
- (J) Auxiliary voltage connection
- (K) System connection, 6-pin for connecting an analogue actuator module



CAUTION

The device could become damaged.

Do not connect any electronic ballasts or electronic transformers with 1-10 V control input to the outputs!

Do not connect external voltages to the the outputs. Connected components must guarantee the safe isolation from other voltages.

The GND terminals must not be connected to analogue actuator module terminals with the same name (risk of destroying the device).

- Current outputs may be loaded up to max. 500 Ω.
- Voltage outputs must be loaded with at least 1 KΩ.
- The GND terminals of outputs K1 to K4 are interconnected internally.
- The respective output is switched off in the event of a short circuit of a voltage output between K1 to K4 and GND.

Mounting the actuator



It is not permitted to use non-approved interconnecting cables, their use may impair electrical safety and the proper functioning of the system.

An analogue actuator module is connected solely with a 6-pin system plug (supplied with the analogue actuator module).

In order to make connection convenient, two terminals for the power supply are available and are interconnected in pairs.

Installing the module

The following basic rules should be observed when installing an analogue module:

- A maximum of one analogue actuator module can be connected.
- One extension module can be exchanged for another of the same type - e.g. if a module is faulty - while the system is in operation (disconnect module from voltage!). After a module has been replaced, the actuator carries out a reset after approx. 25 seconds. This re-initialises all outputs on the actuator and the connected modules and resets them to their original status.
- It is not permitted to add or remove modules without adapting the configuration and downloading it into the actuator, as this may lead to system malfunctions.

Commissioning the actuator

The actuator carries out a module scan after being switched on for the first time (status LED: "Orange / On"). As a new device does not have a project as standard, the status LED switches to "Red/flashes quickly".

A connected analogue actuator module signals that it is ready for operation by switching its status LED to "Flashing quickly".

After a project has been loaded into the actuator, the status LED switched to "Green/On", the module switches its status LED off.

Status LED

Device status (three colours red, orange, green)

| | |
|-----------------------------|--|
| OFF | No power supply |
| Orange / on | Module scan by analogue actuator |
| Orange / flashes quickly | Analogue actuator module scan |
| Red / flashes slowly | Error: Undervoltage at the module connection |
| Red / flashes quickly | Error: No project / parameterisation error |
| Green / flashes slowly | Address allocation, module scan complete, configuration OK |
| LED green / flashes quickly | Parameter download in the module |
| LED green / on | Module scan complete, everything OK |

Flashing slowly = 1/s; flashing quickly = 2/s

Output signals K1 to K4 (yellow):

LED off: The output signal is equal to zero

Technical data

| | |
|---|---|
| Auxiliary voltage: | AC 24 V \pm 10 % |
| Current consumption: | max. 308 mA |
| KNX voltage: | DC 24 V (+8 V / -3 V) |
| KNX power consumption: | typ. 150 mW |
| Ambient temperature: | -5 °C to +45 °C |
| Storage/transport temp.: | -25 °C to +70 °C |
| Humidity | |
| Environment/storage/transport: | max. 93% relative humidity, no condensation |
| Connections | |
| Outputs, power supply: | Screw terminals |
| Single-core: | 0.5 mm ² to 4 mm ² |
| Finely stranded (without core end sleeve): | 0.34 mm ² to 4 mm ² |
| Finely stranded (with core end sleeve): | 0.14 mm ² to 2.5 mm ² |
| KNX: | Connecting and branch terminal |
| Analogue actuator module: | 6-pin system plug |
| Analogue outputs | |
| Number: | 4 |
| Ranges: | DC 0 to 1 V, DC 0 to 10 V, DC 0 to 20 mA , DC 4 to 20 mA |
| Voltage measurement impedance: | > 1 k Ω |
| Current measurement impedance: | < 500 Ω |
| Analogue actuator module power supply: | DC 24 V via system bus max. 80 mA |
| Type of protection: | IP 20 in accordance with EN 60529 |
| Device width: | 4 TE = approx. 72 mm |

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