KNX 12CH 10A Multi-Function Actuator

Datasheet

KE.R1210

Function

1.Switch Output

(1) Independent control for each circuit's lights/loads;

(2) With manual switch control capability;

(3) With relay magnetic latching function;

(4) Delayed on/off operation;

(5) Timing off and cyclic on/off;

(6) Status value query and response functionality;

(7) Scene combination control and scene learning capabilities;

(8) Interlock group and channel lock features;

(9) "AND" and "OR" logic operation capabilities;

(10) Selectable relay state after bus power-off and recovery;

(11) I/O dry contact input interface supporting switch, curtain, dimming, and scene commands, with direct linkage to fire emergency lighting.

2.Curtain Output

(1) Can move up/down, stop/adjust the louvers, change position, etc.

(2) Supports both Blind and Shutter operation modes;

(3) With manual switch control capability;

(4) With relay magnetic latching function;

(5) Status value query and response functionality;

(6) Configurable scene combination control;

(7) Selectable relay state after bus voltage recovery;

(8) I/O dry contact input interface supporting switch, curtain, dimming, and scene commands, with direct linkage to fire emergency lighting;

(9) Applications: opening and closing curtains, projection screens, venetian blinds, rolling shutters, lifters, etc.

3.Fan Coil Output

(1) Controls 2-pipe or 4-pipe fan coil output;

(2) Supports fans with 1-speed, 2-speed, and 3-speed control;

(3) Fan operation modes: Auto and Manual;

(4) With manual switch control capability;

(5) With relay magnetic latching function;

(6) Delayed fan on/off function;

(7) Status value query and response functionality;

(8) Selectable relay switch state after bus voltage recovery;

(9) Reports local fan speed and valve status;

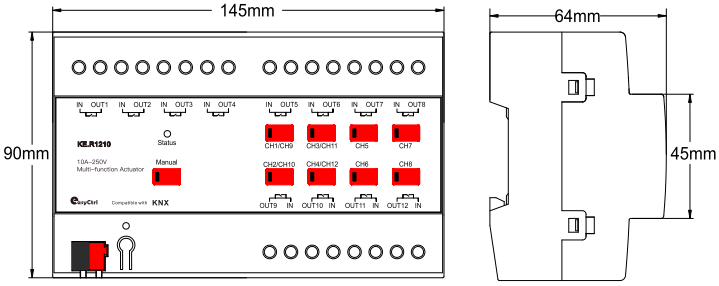
(10) Controls heating, cooling, and low/medium/high fan speeds according to automatic or manual operation;

(11) I/O dry contact input interface supporting switch, curtain, dimming, and scene commands, with direct linkage to fire emergency lighting.

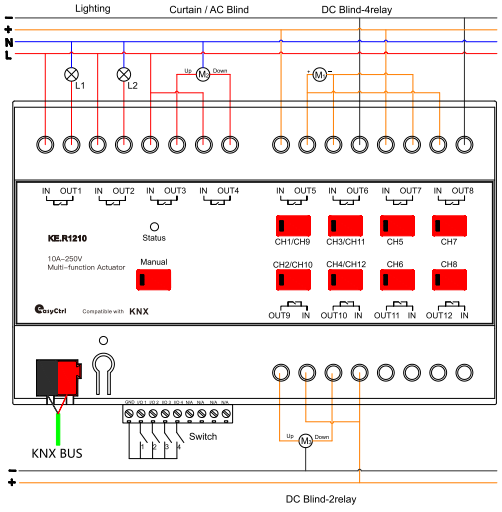
Parameters

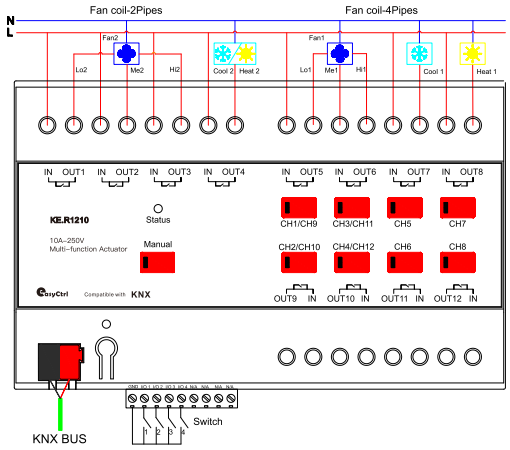
Bus voltage:	21-30 VDC, KNX bus power
Static current:	≤ 12mA
Charging current:	≤ 20mA
Static Bus power:	≤ 360mW
Charging Bus power:	≤ 600mW
Main output:	12-channel design,Each CH 250VAC (50/60Hz) Max 10A (resistive LOAD)
Shell material:	PA66
Dimensions:	145mm x 90mm x 64mm
Weight:	About 0.45 kg
Installation:	35mm DIN
Operating Temperature:	-5°C...+45°C
Storage Temperature:	-25°C...+55°C
Transportation Temperature:	-25°C...+70°C
Relative Humidity:	Max 90%

Dimension



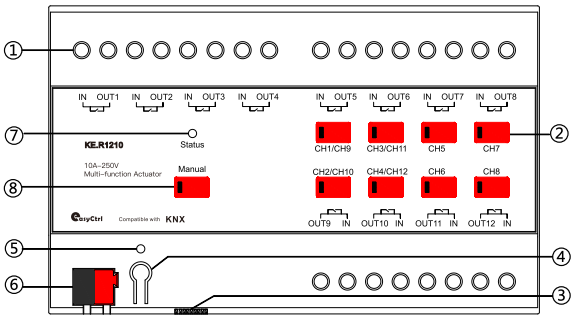
Wiring





Note: "L"is the live wire in a two-phase circuit, and "N" is the neutral wire in a two-phase circuit.
"+"is the positive pole of 24V DC, "-"is the negative pole of 24V DC.

Operation



① Description: Relay output terminal, one in and one out, the aperture can connect 0.2-4 mm^2 wires;

② Description: Manual operation button and output indicator for channel output. A short press of the button toggles the relay state of that circuit.

● When the button is used to control switch output, each channel corresponds to one button and one indicator light. When the relay is closed, the indicator light on the button is on; when the relay is open, the indicator light is off.

● When the button is used to control curtains / blinds (AC/DC), a short press for upward / downward movement. During operation, a short press again stops the movement / adjusts the blinds. When the curtain / blind is in operation, the corresponding indicator light is on; when the movement stops or the limit position is reached, the indicator light is off.

● When the button is used to control the output of fan coil units, under 2/4 pipe systems, the buttons and indicator lights respectively represent: cooling, heating, low fan speed, medium fan speed, and high fan speed. When the function key is turned on, the indicator light on the key is on; when it is turned off, the indicator light is off.

③ Description: Dry contact input terminal;

④ Description: Programming button, short press this button to enter programming mode;

⑤ Description: Programming indicator light, when the indicator light is red, the device is in programming state, and when the device is programmed or working normally, the indicator light goes out.

⑥ Description: KNX terminal block, KNX bus access, red wire connected to "+", black wire connected to "-".

⑦ Description: Status indicator shows device power state. Green indicate snormal bus power supply.

⑧ Description: Manual is the circuit switching button. A short press toggles the button indicator between red and orange states. When the button indicator is red, it controls circuits CH1 to CH8. When the button indicator switches to orange, it controls circuits CH9 to CH12.

Installation

The device is installed in the distribution box and can be installed on the 35mm DIN rail of DIN EN 60715 standard. In order to facilitate the rapid installation of the device in the distribution box, it is necessary to ensure that the operation, testing, inspection and maintenance of the device.

Safe use and maintenance

(1) Read all instructions carefully before use.

(2) Create a well-ventilated environment.

(3) During use, pay attention to moisture, shock and dust prevention.

(4) Do not expose to rain, other liquids or corrosive gases.

(5) If the machine is damp or invaded by liquid, it should be dried in time.

(6) If the machine fails, please contact professional maintenance personnel or our company.