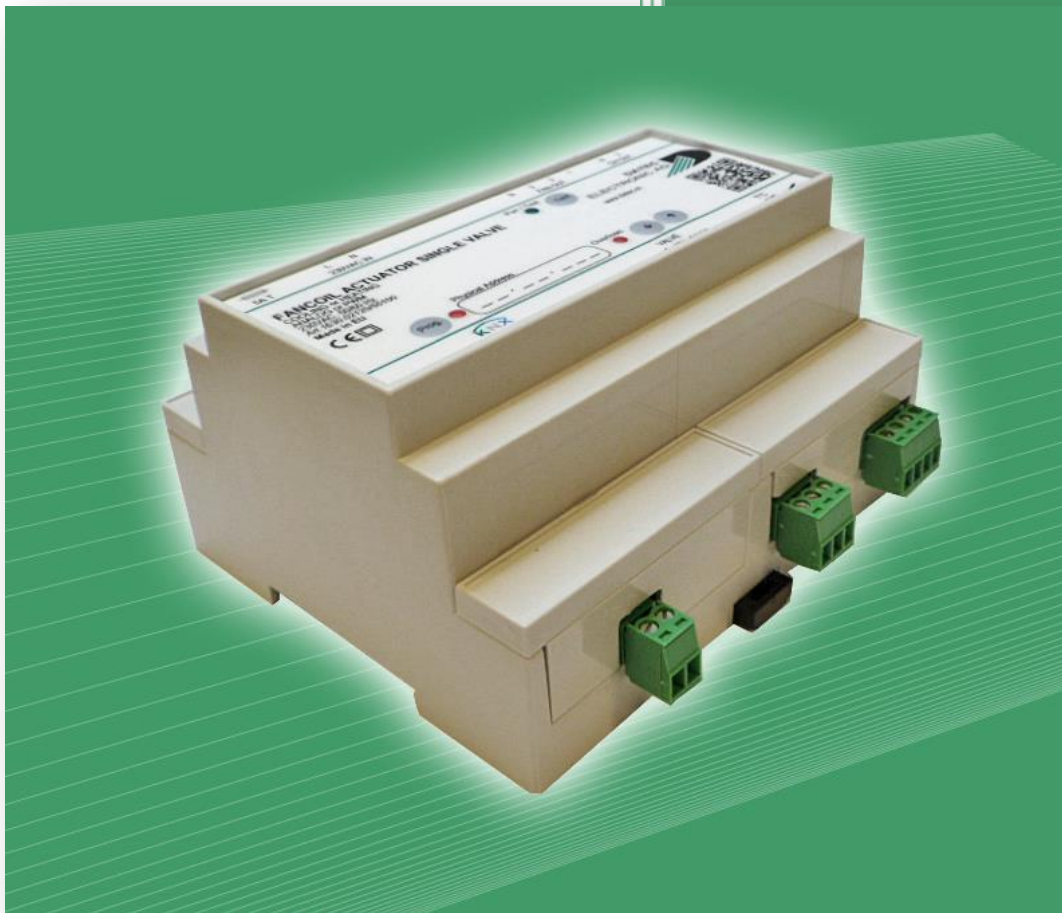


Datasheet

FANCOIL ACTUATOR
COOLING or HEATING
ANALOG or PWM
Art. 1630.02120/55100



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Datasheet

FANCOIL ACTUATOR- Art. 1630.02120/55100

Description

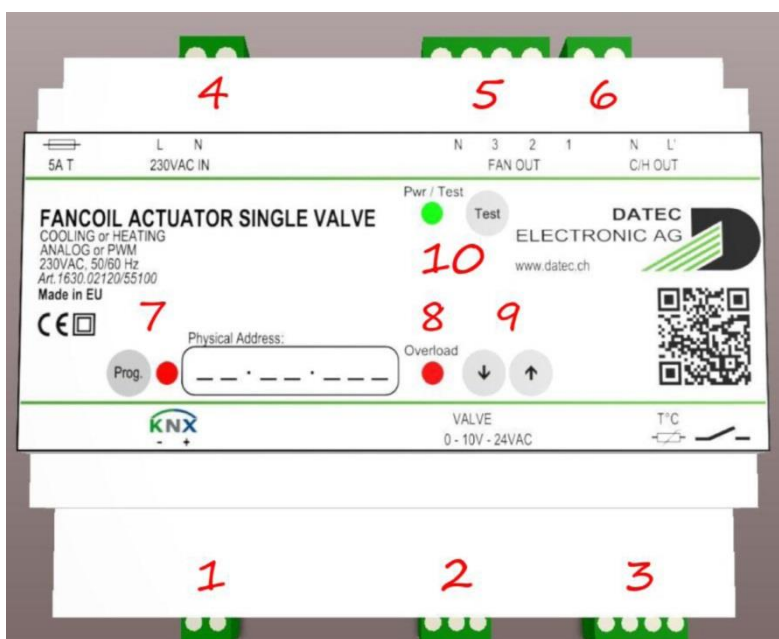
The **FANCOIL ACTUATOR** is a DIN Rail mounted KNX device, for Heating or Cooling applications in offices, hotel rooms and much more. This device is used for driving fans and valves (0-10V or PWM) as determined by the room controller. The **FANCOIL ACTUATOR** is able to drive up to three fan speeds and an additional 230VAC relay output (ex. for electrical heater). The device has two physical inputs, the first for connecting a local temperature sensor and the second to be used as a binary input or as a window contact input.

Also, the 24V power supply is included.

Using *Handmode*, the installation can be tested even without connection to the KNX bus.

Functional description

- FANCOIL ACTUATOR Heating or Cooling
- 230VAC Power input is protected by a 5A T replaceable fuse
- Single output for heating or cooling valve
- Valve output can be set to analog 0-10VDC or 24VAC PWM (PWM Period can be set to several values between 15 seconds and 1 hour)
- FAN Output with 1, 2 or 3 fan speeds (separate 230VAC relay)
- Supplementary 230VAC Relay Output, for electric coil heating, cooling or other application
- **Overload** LED indicator with internal protection
- **Handmode** is available for testing purpose, in order to check installation even without device being programmed or connected to KNX bus (Buttons to Increment / Decrement valve output, Increment fan speed, manually switch output Relay)
- Local temperature sensor input
- Local temperature sensor correction (A fixed value can be added or subtracted to the measured temperature)
- Binary input or local window contact input, 24VDC with output limited to about 6mA provided by device. Needs only dry contact
- Operating LED for running or **Handmode** state indication
- To be mounted on 35mm DIN Rail
- Operating temperature -5°C ... +45°C
- Housing 106mm (6 units) x 110 x 60mm



Terminals

1. KNX terminals
2. Valve terminals
3. Local temperature sensor & Binary input / Window contact input
4. 230VAC supply
5. 230VAC fan outputs
6. 230VAC relay output

Buttons

7. KNX programming button
9. Increment and decrement buttons
10. Test button

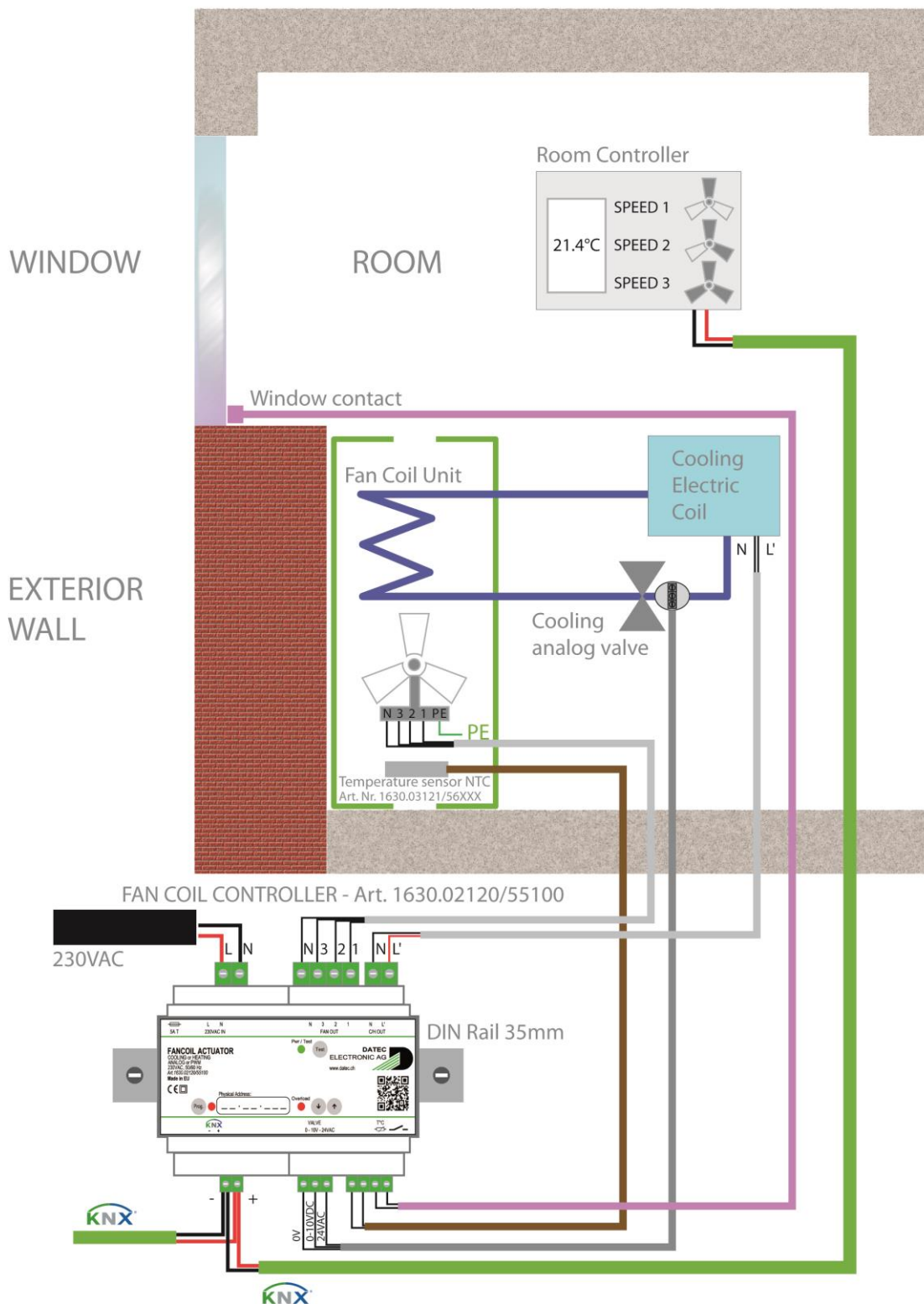
LED's:

7. KNX programming LED
8. Overload
10. Pwr/Test LED

Datasheet

FANCOIL ACTUATOR- Art. 1630.02120/55100

Application example: Fancoil use in cooling mode with analog valve



Technical Data

| | |
|--|---|
| Housing | 106mm (6 units) x 110 x 60mm |
| Mounting | To be mounted on 35mm DIN Rail |
| Housing material | UL94-V0 flame retardant polycarbonate |
| Protection degree | IP20 |
| Weight | 0.370kg |
| Operating temperature | -5°C ... +45°C |
| Terminals Mains voltage / Low voltage | Pluggable screw terminals, 12A 250V / 8A 160V |
| Wire section | 2.5mm ² (14AWG) / 1.5mm ² (16AWG) |
| Clamp opening size | 2.8x3.1mm / 1.8x2.6mm |
| Screw | M3 / M2 |
| Maximum torque | 0.5Nm (4.5in.lbs.) / 0.25Nm (2.3in.lbs.) |
| Supply | 230VAC, 50/60Hz |
| Replaceable fuse | Subminiature fuse, 8.5mm, 5A time-lag T, 250VAC, IEC 60127-3 The same fuse supplies device and all outputs! |
| KNX | 10mA current consumption from bus |
| Window contact input | NO or NC dry contact |
| Voltage supplied from device to window contact | 24VDC, max. 6mA (4k Ohm internal) |
| Cabling | Twisted pair, maximum 30m |
| Temperature sensor input | Temperature sensor from DATEC Electronic Art. 1630.03121/56XXX (XXX length in cm) NTC 6K8 B25/100 = 4200K |
| Cabling | Twisted pair, maximum 30m |
| Voltage supplied from device to temperature sensor | 24VDC, modulated |
| Relay outputs | 230VAC |
| Total current of all outputs | Maximum 5A |
| Contact rating | 5A, 250VAC |
| Contact material | AgNi |
| Maximum switching power | 1250VA |
| Dielectric strength | 1000VAC 1minute between open contacts |
| Valve output | 24VAC PWM or 0-10VDC modulating |
| Voltage supplied from device to valve | 24VAC, max. 4.5VA nominal, overload / short circuit protected |
| Type of valve | 24VAC PWM or 0-10VDC modulating |
| 24VAC PWM output pulse ratio | 0 – 100% |
| 24VAC PWM Period | 15 seconds ... 1 hour |
| 0-10VDC modulating output cabling | 0-10VDC, max. 10mA Maximum 3m |
| EMC | EN 61000-4-2 EN 61000-4-3 EN 61000-4-4 EN 61000-4-5 EN 61000-4-6 EN 61000-4-11 |