

Datasheet

FANCOIL ACTUATOR SINGLE VALVE
COOLING or HEATING
ANALOG or PWM

Art. 1730.02120/55100



DATEC Electronic AG

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Description

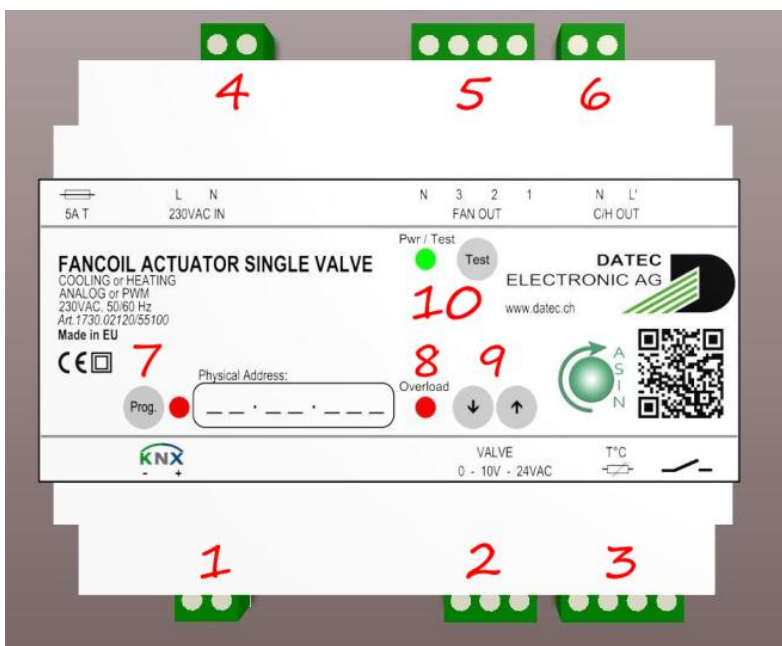
The Datec **FANCOIL ACTUATOR SINGLE VALVE** is a DIN Rail mounted KNX device, for Heating or Cooling applications in offices, hotel rooms and much more. The fancoil can be used in Analog 0-10VDC or PWM mode.

This device is used for activating fan and valves according to the request from a room controller. The fancoil actuator is able to drive up to three fan speeds and an additional 230VAC relay output (ex. electric coil). The device has two physical inputs, the first for connecting a local temperature sensor and the second to be used as binary input or as window contact input.

The *Handmode* function helps to check the installation 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 DATEC 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

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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)
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	0-10VDC, max. 10mA
cabling	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