

## Technical Datasheet clima FCB-10V

### 1. Product description



The Fan Coil Box clima FCB-10V is an actuator extension for the room control unit of the clima RCM and RO FC-FC series.

The device can drive up to a three-stage fan motor and has two analog outputs 0-10V interface. On two digital inputs potential-free contacts can be connected.

All connections are made inside the box with spring-loaded terminals.

For configuration is a convenient LNS plug-in available.

### 2. Mounting and installation

#### 2.1. Mounting



The installation and assembly of electrical equipment may only be performed by a qualified electrician.



All connections are made in the fan coil box (FCB). Within the FCB no further distribution terminals must be used. Unused terminals are free to leave!

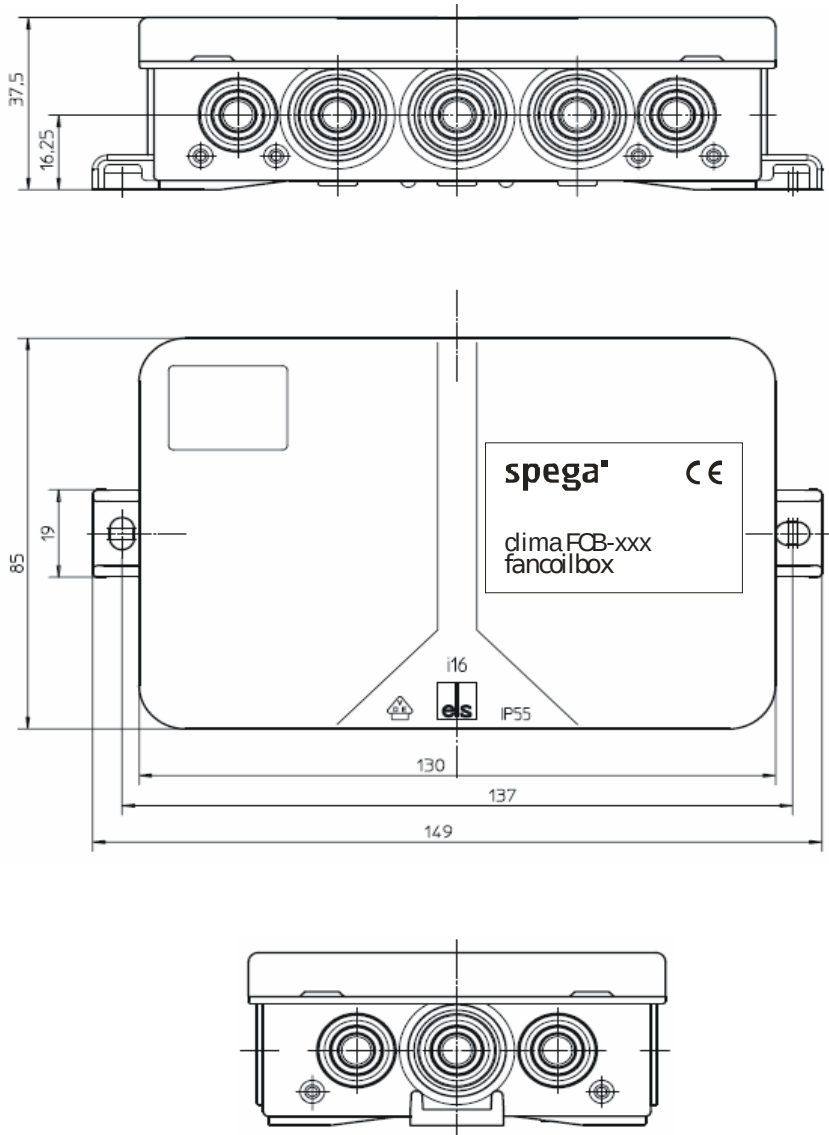


Inside the box there are areas for mains voltage and low voltage protection. When preparing the wiring for security clearances!



The IP55 junction box is valid only when properly cable entry and assembly.

The fan coil box (FCB) is composed of an electronic control system with terminals and a junction box. Using the External mounting brackets, it is possible to mount the junction box directly on a wall, ceiling or floor.



Dimensions clima FCB

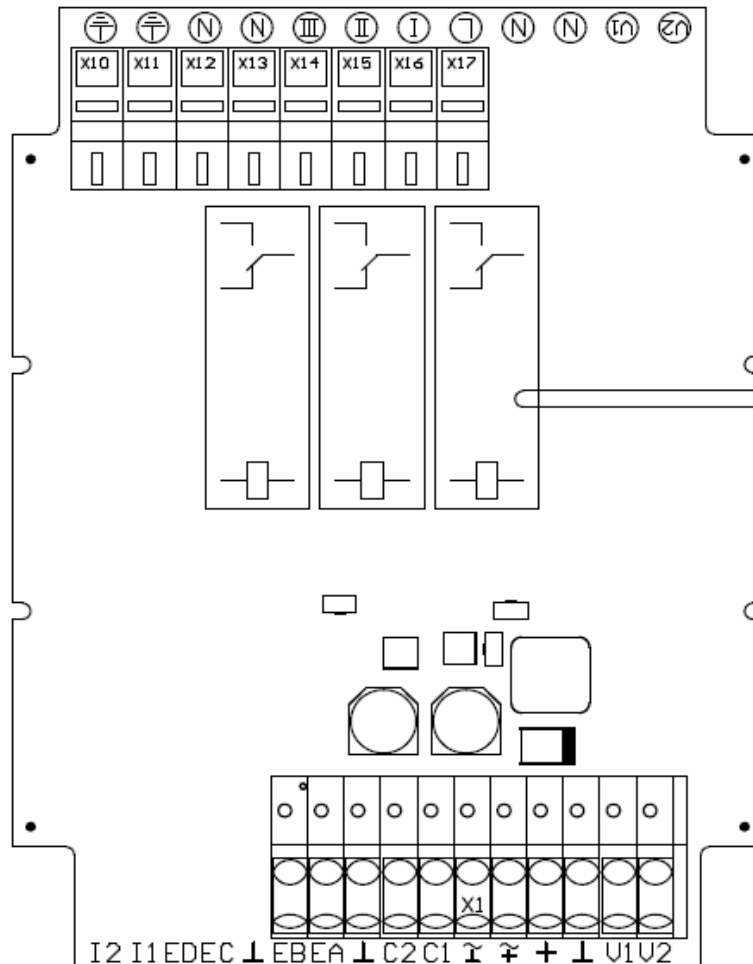
## 2.2. Installation



The installation and assembly of electrical equipment may only be performed by a qualified electrician.

The fan coil box (FCB) are only suitable for connection to the LON Room temperature controller clima clima RCM - FC or RO - FC.

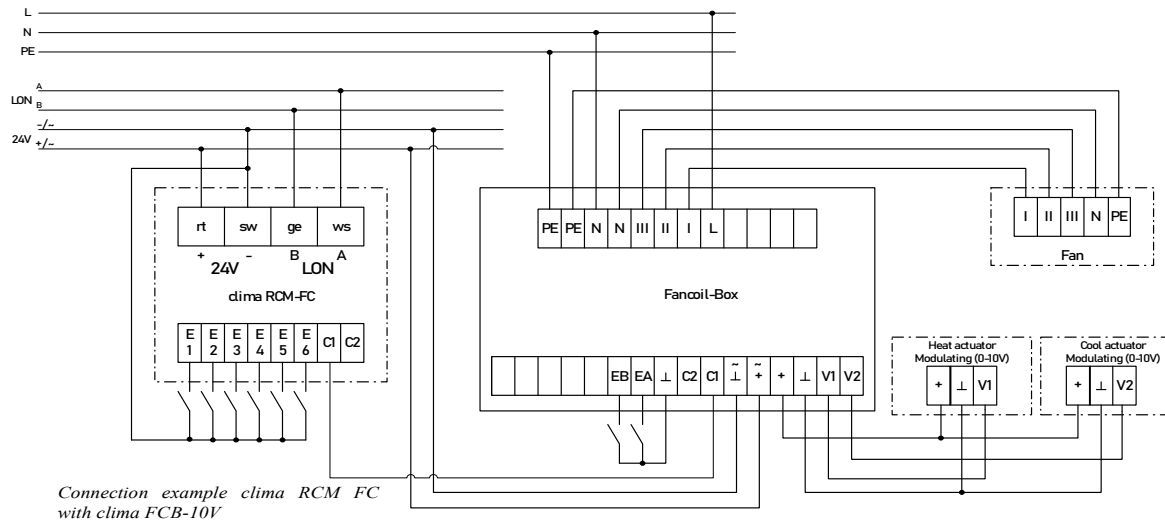
The communication to the LON Room temperature controller is carried out by a three-pole cable. The power supplies of FCB and room thermostat with typ 24V AC / DC can be supplied from different sources. It is important that the supply voltage are both FCB and the room thermostat at the same ground potential.



Clamps clima FCB-10V

Clamp	Designation on circuit card	Function	Type
X1-1	EB	Binary input EB	Input
X1-2	EA	Binary input EA	Input
X1-3	Ground	Ground potential for binary inputs	Power supply BOX
X1-4	C2	Communication line 2 FC-BOX of clima RCM-FC / RO-FC	Communication
X1-5	C1	Communication line 1 FC-BOX of clima RCM-FC / RO-FC	Communication
X1-6	~ Ground	Ground Power supply FC-BOX	Power supply BOX
X1-7	~ +	+24V DC / AC Power supply FC-BOX	Power supply BOX
X1-8	+	Power supply - Input for thermal actuators 1 +2	Power supply actuators
X1-9	Ground	Power supply - Input for thermal actuators 1 +2	Power supply actuators
X1-10	V1	Output 0-10V Continuous actuator 1	Output
X1-11	V2	Output 0-10V Continuous actuator 2	Output
X10	PE	Power supply PE	Clamps
X11	PE	Motor connection PE	Clamps
X12	N	Power supply N	Power supply
X13	N	Motor connection N	Motor connection
X14	III	Motor stage 3	Relay-Output
X15	II	Motor stage 2	Relay-Output
X16	I	Motor stage1	Relay-Output

Clamp	Designation on circuit card	Function	Type
X17	L	Power supply L	Power supply



Connection example clima RCM FC  
 with clima FCB-10V

### 3. Technical data

#### Power supply

Operating voltage	24 V AC / DC (+/- 10%), common ground with clima RCM-FC or clima RO-FC
Current input	max. 50 mA

#### Connections

Interface to clima xxx-FC	1 Wire Interface to clima FCB, common ground with clima RCM-FC or clima RO-FC
Fan outputs	5-pin terminal connector for connecting cables: 0.08 to 2.5 mm <sup>2</sup> rigid / flexible 230 V AC, max. 250 W (AC3-load)
Analog outputs	2 pieces: 2-pin terminal connector for connecting cables: 0.2 to 1.5 mm <sup>2</sup> rigid / flexible AO 0-10V, max. 5mA
Digital inputs	2 pieces: 2-pin terminal connector for connecting cables: 0.2 to 1.5 mm <sup>2</sup> rigid / flexible DI, potential free

#### Housing

Type of protection	IP 55
Dimensions	40 x 150 x 86 (H x B x T)
Type/location of installation	On-wall mounting

#### Ambient conditions

Operating temperature	-5°C ... +45°C
Storage temperature	-25°C ... +55°C
Transport temperature	-25°C ... +70°C
Relative humidity	5% ... 93% (without condensation)
Installation height	up to 2000 m above sea level

### Safety

Electrical isolation	SELV (EN 60 950)
Class of protection	III (IEC 536 / VDE 106 part 1)

### Standards

Device safety	acc. EN 50 090-2-2
Immunity	acc. EN 50 090-2-2
Certification	CE

## 4. Order information

Order number	Description
410 342	<b>clima FCB-10V</b> Fan Coil Box for controlling fan coils with 2 analog outputs 0-10 V and 3 switching stages
231 334 W	<b>clima RCM-FC</b> LON room thermostat with fan switch and 6 digital inputs, pure withe
231 334 GW	<b>clima RCM-FC</b> LON room thermostat with fan switch, 6 digital inputs, pure withe glossy
231 334 A	<b>clima RCM-FC</b> LON room thermostat with fan switch and 6 digital inputs, aluminium
231 335 W	<b>clima RCM-FC</b> LON room thermostat with fan switch, occupancy button and 6 digital inputs, pure withe
231 335 GW	<b>clima RCM-FC</b> LON room thermostat with fan switch, occupancy button and 6 digital inputs, pure withe glossy
231 335 A	<b>clima RCM-FC</b> LON room thermostat with fan switch, occupancy button and 6 digital inputs, aluminium
231 344 W	<b>clima RCM-FC-rH</b> LON room thermostat with fan switch, 6 digital inputs and relative humidity sensor, pure withe

Order number	Description
231 344 GW	<b>clima RCM-FC-rH</b> LON room thermostat with fan switch,6 digital inputs and relative humidity sensor, pure withe glossy
231 344 A	<b>clima RCM-FC-rH</b> LON room thermostat with fan switch,6 digital inputs and relative humidity sensor, aluminium
231 345 W	<b>clima RCM-FC-rH</b> LON room thermostat with fan switch, occupancy button, 6 digital inputs and relative humidity sensor, pure withe
231 345 GW	<b>clima RCM-FC-rH</b> LON room thermostat with fan switch, occupancy button, 6 digital inputs and relative humidity sensor, pure withe glossy
231 345 A	<b>clima RCM-FC-rH</b> LON room thermostat with fan switch, occupancy button, 6 digital inputs and relative humidity sensor, aluminium
231 331 W	<b>clima RO-FC</b> LON continuous controller with 6 digital inputs, pure withe
231 331 A	<b>clima RO-FC</b> LON continuous controller with 6 digital inputs, aluminium
231 361 W	<b>clima RO-FC-rH</b> LON continuous controller with 6 digital inputs and relative humidity sensor, pure withe
231 361 A	<b>clima RO-FC-rH</b> LON continuous controller with 6 digital inputs and relative humidity sensor, aluminium



## 5. Support

The information given in this manual was carefully compiled. Should you have any further questions regarding this product, please contact:

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