

# DESEO RTR

## Installation Manual

### Safety instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

Failure to observe these instructions might damage the device.

The device may only be installed and connected by professional electricians.

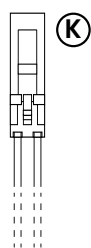
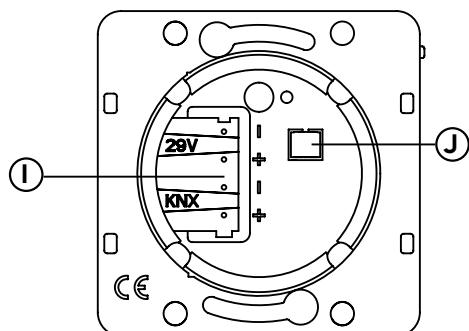
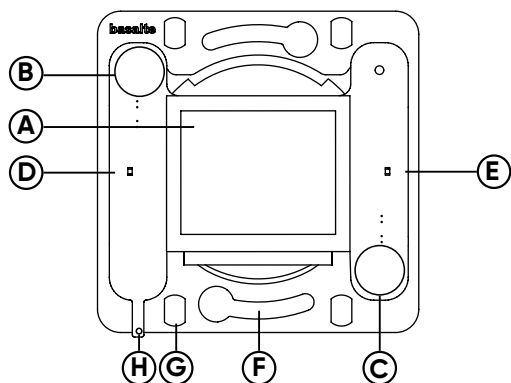
All relevant rules and regulations valid in the country of use, as well as KNX guidelines, apply.

### Description

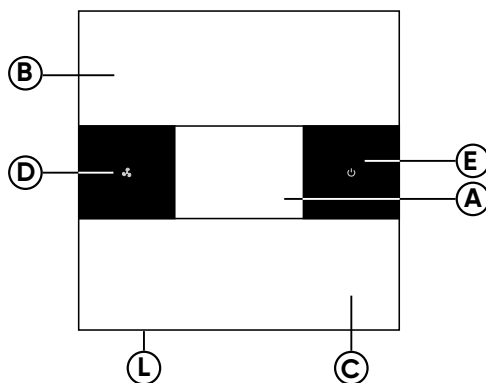
The Deseo RTR is a HVAC control panel that can be part of a KNX system. Deseo combines touch-sensitive technology with a 1.7" OLED display. The 4 touch-sensitive touch sensors allow you to control the setpoint, change the mode and control the fan. By touching the upper and lower sensor at the same time the multi-touch will be activated and a welcome or goodbye scene can be triggered.

### Components

**Deseo RTR KNX**  
Model No. 0310-02



**Deseo front cover**  
Model No. 0311-xx (not included)

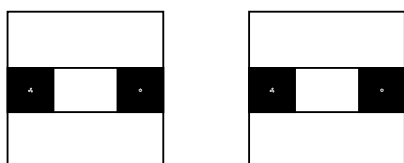


- A 1.7" OLED-display
- B Touch sensor up
- C Touch sensor down
- D Touch sensor left
- E Touch sensor right
- F Opening to screw the device into the wall box
- G Guide for the Deseo front cover
- H Temperature/Humidity sensor
- I KNX connector + external power supply
- J Male connector for external temperature sensor (not included)
- K Female connector with cable for external temperature sensor (not included)
- L Opening for temperature/humidity sensor

### Important advice



- Never connect the device to 110 V / 230 V.
- Avoid obstacles which might obstruct the proper mounting of the cover to the Deseo, such as round headed screws, plastering or textured wall paint.
- Installing Deseo on a metal wall or a mirror surface might cause the device to not function properly.
- The minimum gap between 2 Deseo controllers must be at least 4 cm (1.6 in).
- Do not install any device nearby that might cause interference such as fluorescent lights or RF devices.
- Not mounting the Deseo front cover correctly may result in a poor sensitivity of the touch sensors. Please make sure to always push the front cover onto the Deseo switch as far as possible.



minimum gap = 4 cm (1.6")

### Power requirement

Deseo needs an additional power supply between 18 and 36V DC, typically 24V. In order to have a good capacitive detection, a power supply should be used with a good connection to the electrical earth, preferably with a metal housing. The power supply needs to be connected with the 29V connector.

### Installation and commissioning

- Use a standard European back box with screws. The distance between the screws needs to be 60mm. The depth required is 32mm. Additional depth should be reserved for connecting the device.
- When mounting Deseo use screws with countersunk, flat head and do not apply too much force as this might deform the plastic housing.
- Connect the additional power supply according to the markings on Deseo.
- Connect the bus line according to the KNX standard.
- Load the physical address into the Deseo switch from ETS via the KNX bus.
- Commission the Deseo in ETS and load the configuration into the device.
- Please refer to the software manual to configure the Deseo roomcontroller.

### Note

The Deseo can also be placed in programming mode by keeping the left sensor touched and tapping the right sensor 4 times.

### Calibration

In order to function properly, the sensors of Deseo need to calibrate to the environment. This calibration can start when bus and additional power are applied, when a cover is installed, when the sensor detects a touch for more than 20 seconds. When calibration is forced, the device will reboot. Do not touch the front cover while rebooting because this can lead to bad calibration and insensitive sensors!

### Operating

Deseo has 4 touch-sensitive areas. The upper and lower metal parts and the left and right surfaces next to the display. The metal parts are completely touch-sensitive, no matter where they are touched. The left and right sensors have a white LED. The LEDs light up when the touch sensors are enabled. Touching the upper and lower metal parts simultaneously will trigger the multi-touch event.

### Temperature & humidity sensor

Deseo has an integrated temperature sensor. The measurement takes into account the added heat dissipation of the display and does a compensation. Because of this, the temperature measurement at start-up can be lower than expected.

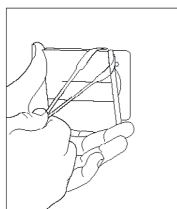
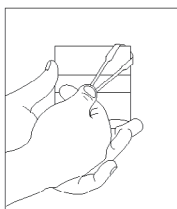
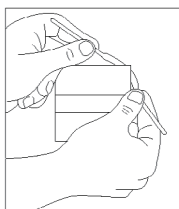
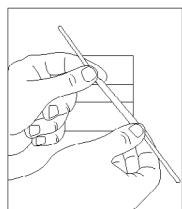
Please consider a delay of about 20 minutes until you have the correct value. After 20 minutes you can compare the measured value with a measurement in the room with a digital temperature sensor to get the compensation value.

### How to remove Deseo front cover

We provide the 'tube' tool to easily remove the Deseo front cover.



Do not use a screwdriver or other tools, as these might damage the cover.



### Technical data

**Current consumption:** KNX bus: 10mA

Current from the additional power supply: 30mA by normal use on 24V DC (up to 60mA at start-up for up to 300ms)

**Power rating:** 1W

**Inputs:** 4 capacitive touch sensors and 1 internal and external temperature sensor PT1000 (not included)

**Ambient temperature:**

Operation: -5°C to 45°C  
Storage: -15°C to 55°C  
Transport: -15°C to 55°C

**Outputs:** 1 OLED display

**Max. humidity:** 93% relative humidity, no moisture condensation

**Protection class:** II

**Type of protection:** IP 20

**Certification:** CE

