



### AirQualy sensor mounting mechanism

e-Bus Coupling Surface is a family of smart mechanisms that are connected to AirQualy sensors to supply them with the power they need to operate. Depending on the model, they include a communications protocol to transmit the information to a building management system or a range of digital and analogue outputs to control an air renewal system.

There are three models to choose from in accordance with the needs of each installation:

- A stand-alone model without outputs or a communications bus, designed for AirQualy sensors with LEDs that only need a power supply to operate. The unit includes a jack connector for a power source that can be plugged into a wall socket, significantly facilitating its mounting.
- A model with a relay output for on/off control and a 0-10 V or 4-20 mA output that provides the value of any sensor or can be configured for PI control over an external unit to automate air renewal.
- A model with Modbus RTU communication (RS-485), which provides the measured value of all the sensors and has an output register that provides PI control over any sensor.

The unit is designed to be mounted on a surface, in such a way that it is not necessary to use a box for its installation, given that it can be installed on any wall or glass surface.

The unit is configured with the AirQualy sensor, using the EConfigurator smartphone APP and NFC technology to transfer the information to the unit.

### Stand-alone model with jack connector for plug-in power supply

### Model with relay output and configurable 0-10 V or 4-20 mA output

### Model with Modbus RTU communication (RS-485)

### Unit for surface mounting

### Configuration with APP and NFC via the AirQualy sensor

### Stand-alone model

e-Bus Coupling Surface SA is the stand-alone model designed for installations where an AirQualy sensor with LEDs is to be used.

It includes a jack connector for the plug-in power source ref. FAP-12W-12V, as well as terminals to enable connection to a DIN rail external power supply.

### Model with digital and analogue outputs

e-Bus Coupling Surface 20 includes a relay output that can be associated with any sensor for on/off control from a configurable setpoint. It also has a configurable analogue output to work in 0-10 V or in 4-20 mA and can be associated with any sensor to read the measured value, or for PI control over an air-conditioning or air renewal system. The unit is powered with a 12-24 V DC power supply and includes terminals to connect to a DIN rail external power supply (ref. FA-15W-24V).

### Technical specifications of the outputs:

Potential free contact relay:

- Maximum contact voltage: 30 V DC
- Maximum contact current: 1 A

0-10 V analogue output:

- Output voltage: 0-10 V
- Maximum current: 60 mA
- Protected against overvoltage and overcurrent

4-20 mA current output:

- Output current: 4-20 mA

### Model with Modbus communication

e-Bus Coupling Surface Modbus has multiple registers to configure the Modbus address, communication speed and parity, setpoints of each sensor for control, measurement levels for each LED and each sensor, output registers to show instantaneous levels and maximum/minimum levels, among others. The unit is powered with a 12-24 V DC power supply and includes terminals to connect to a DIN rail external power supply (ref. FA-15W-24V).



### Ordering numbers

**BC.400000-031**  
**e-Bus Coupling Surface SA**  
 Surface-mounted stand-alone unit  
 12-24 V DC power supply jack connector

**BC.400201-031**  
**e-Bus Coupling Surface 20**  
 Unit with 1 relay, one 0-10 V / 4-20 mA output  
 12-24 V DC power supply

**BC.470002-031**  
**e-Bus Coupling Surface Modbus**  
 Unit for Modbus RTU (RS-485)  
 12-24 V DC power supply

### Accessories

**FAP-12W-12V**  
 100-240 V AC  
 Plug-in power source  
 with jack connector



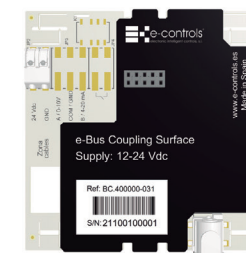
**FA-15W-24V**  
 95-250 V AC / 24 V DC  
 DIN rail external  
 power supply



## Examples of possible combinations

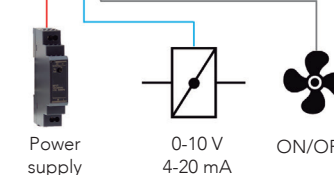
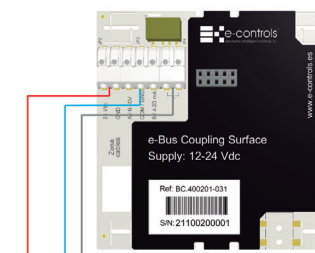
### e-Bus Coupling Surface SA

Stand-alone model for AirQualy sensor with LEDs  
 Power supply jack connector



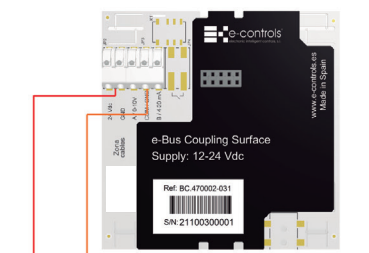
### e-Bus Coupling Surface 20

Direct control with PI algorithm  
 0-10 V / 4-20 mA output to read the measured value of any sensor



### e-Bus Coupling Surface Modbus

Model with Modbus communication to report data to a BMS



DD50121506000-0, BC.4XYZZ-031 - e-Bus Coupling Surface DD5EN