

# Clima

# e-Room<sup>®</sup> Modbus

Room Climate Control for Fan Coil applications

## 2 HVAC control with occupancy sensor



### Energy saving occupancy detection based control

**e-Room Modbus** device has some embedded configurations available to manage different input and output arrangements for room automation in hotels and offices. In this application note the device has been configured to manage the HVAC control of the zone depending on the occupancy detection provided by means of a motion sensor. The device is installed on the zone and wired with a sensor which carries out the occupancy detection signal. The purpose of the application note is to automatically switch on and off the climate control, or change it into economy mode when the room turns to occupied and unoccupied.

In order to control the occupancy of the room, one or more motion sensors can be installed on the zone and wired to a digital input of the device. Some door contacts are also installed to automatically switch the system off when the door is opened and all the people has left the zone. With this concept, anytime the door opens, the system reads the motion sensors in order to switch off the HVAC system if the sensors does not monitor any activity in the room.

The RS-485 channel and the Modbus protocol provides the possibility to monitor and control the room from remote at any time. Any activity detected by the motion sensors are translated into the e-Room<sup>®</sup> and can be monitored through the network, but also the temperature and some other functions.

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HVAC control interface

Easy and intuitive visualization

Local control pushbuttons

Front panel integrated temperature sensor

Easy installation

Remote control through Modbus RTU (RS-485)