Regula Secura



Description

Lindab has a condensation guard for both chilled beams and facade systems. The condensation guard is called Regula Secura. Since the control exercised by Regula Secura is based on actual condensation, a greater effect is obtained than with conventional humidity control. Conventional humidity control usually measures the mean humidity and sets aside a safety margin for the water temperature, to avoid condensation. With Regula Secura, no margins are required for either the sensor settings or the thermal resistance in the piping.

When condensation is formed on the supply pipes, the cooling valve temporarily shuts down the water flow through the affected product. The protection provided by Regula Secura is separate for each individual chilled beam or facade system. This prevents damp damage caused by condensation. The condensation guard continues to regulate the effect even below the dew point, so the performance of the chilled beam or the facade system is kept to the optimum. An example of a control sequence is shown in the diagram below.

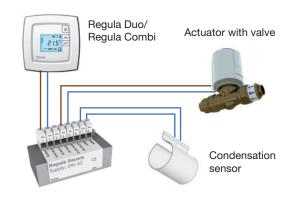
The use of Regula Secura on all beams and facade systems increases the protection against condensation for each individual product. This means that only units where condensation forms will be shut down until the condensation dries out, while all other units will continue working. This is particularly beneficial for room environments with variable climatic conditions, or where there is a risk of external moisture entering the room, for example through open windows.

Function

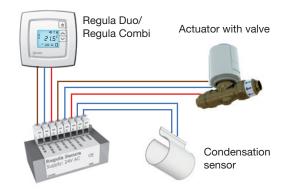
Regula Secura exercises control through the output signal to the actuator and is only active when there is a signal to the actuator to open the valve. When the control signal does not ask for cooling, there is no need to activate Regula Secura. Regula Secura has a sensor mounted on the supply pipe of the beam or the façade system. When the sensor indicates that condensation has formed on the supply pipe, Regula Secura closes the valve until the condensation has dried out.

Regula Secura is compatible with electronic control devices such as Regula Combi or any other equipment with thermoelectric actuators. It is important to note that the valve and the actuator need to be closed in the event of a power cut.

Wiring 0-24V



Wiring 0-10V



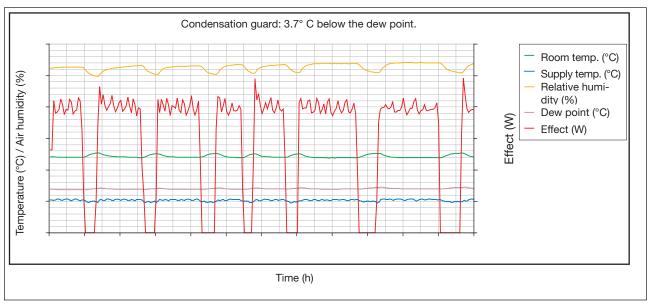
Schematic showing how to connect Regula Secura.





Regula Secura

Condensation guard



The diagram shows a control sequence where the water temperature is 3.7°C below the dew point. Throughout the whole process, the control centre asks for cooling. It can be seen how Regula Secura controls using the ON/OFF feature.

