

STD-10-1 MODULATING RETURN AIR AND NIGHT HEAT WITH TEMP. AND (CO₂) IN ROOM

The unit is fitted with a modulating return air damper opening and closing parallel to the outside air damper, but unlike the outdoor air damper, it is mounted so that it is open in a de-energized state.

On heating demand the damper is controlled to increase recirculation, i.e. the outdoor air damper closes to the same degree that the return air damper opens. If the air quality deteriorates the recirculation is reduced.

To ensure that the recirculation is working correctly, the pressure balance across the return air damper is controlled. If necessary, the outdoor air damper regulates so that the negative pressure in the outdoor air is maintained.

If there is heating demand outside regular operating hours the unit starts unoccupied heating and opens the return air damper. The exhaust air then passes through the return air damper and is heated by the heating coil without running the exhaust fan.

The function is only available with duct pressure control mode.

Settings:

Air quality 1 stpt	<i>Carbon dioxide content that reduces recirculation.</i>
Start up temp	<i>The outside air temperature that if undershot, starts recirculation.</i>
Start stpt heating	<i>The temperature that if undershot, starts unoccupied heating.</i>
Heating setpoint	<i>Supply air temperature setpoint during unoccupied heating.</i>
Hysteresis stop	<i>Specifies how far above the start setpoint the unoccupied heating is to reach before stopping.</i>