

Object Controller 55 [SCN-RTR550.01]

Temperature and humidity affect the comfort of a room. The Object Controller 55 measures these values and is able to control the room temperature and ventilation. Potential-free contacts such as conventional push-buttons or window contacts can be connected to 4 binary inputs. Fits 55 mm systems/ranges.

Room temperature controller

The comprehensive PI temperature controller only needs the actual temperature of the internal or an external temperature sensor to start the regulation. The setpoints for “Comfort”, “Standby” and “Night” can be individually configured independently of the “Basic Comfort” setpoint. This ensures a high level of compatibility with many visualisations. The external setpoint shift via objects can be done classically via 1 bit (step), 1 byte (counter pulses) and via 2 bytes (temperature difference and absolute value). This also provides a high compatibility with other visualisations. Setpoints and the operating mode can be saved and restored in the event of a bus voltage failure.



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Additional heating level

To shorten the heating phases, the temperature controller has an additional heating level- optionally as a 2-point control or as PWM (switching PI control).

Temperature and humidity sensor

The Object Controller 55 has a humidity sensor and a temperature sensor. In addition to the measured value output of the relative and absolute humidity, the dew point temperature can be automatically calculated and a dew point alarm can be triggered.

Lock heating/cooling operation while windows are open

If, for example, a window is opened for ventilation in winter, the temperature controller disables the heating operation and switch into frost protection mode. As soon as the window is closed, the heating mode is activated again. In cooling mode, the heat protection would be activated.

Setpoint controlled via outdoor temperature

In cooling mode, it is possible to control the setpoint via the outdoor temperature. In this way, high temperature differences between the outside and inside temperatures can be avoided.

Maximum flow temperature

If the flow temperature is measured with an external temperature sensor and linked via an object, the maximum flow temperature can be limited. In cooling mode, it is possible to limit the temperature via dew point monitoring using a 1-bit alarm or 2-byte threshold value comparison.

Ventilation control

The ventilation control enables the control of fans manually in up to 4 steps, via the control value of the temperature controller, by means of the temperature difference between the setpoint and actual value or via the relative humidity (external object). Furthermore, the [day/night] function ensures the individual setting of the ventilation according to the time of day. A sticking protection function is available for the ventilation system

Binary inputs

Window contacts or conventional light/blind push-buttons, for example, can be connected to the 4 binary inputs for potential-free contacts. Functions such as switching, short/long switching, dimming, blinds and sending values/states are possible with individual or grouped inputs.

Diagnosis

The Object Controller 55 provides plain text diagnosis and displays the current status of the controller via a 14-byte object. This allows the localisation of errors in a short time, which makes commissioning much easier for the system integrator.

Updateable via DCA App

If necessary, the Object Controller 55 can be updated via the MDT Update Tool (DCA). The download is available free of charge at www.mdt.de and www.knx.org.

Long Frame Support

The Object Controller 55 supports „long frames“ (longer telegrams). These contain more user data per telegram, which significantly reduces the programming time.