



The Oventrop Quality Management System is certified to DIN-EN-ISO 9001

Function:

When used in conjunction with the Oventrop electrothermal or electromotive actuators and the Oventrop radiator valves, the Oventrop room thermostats allow an individual room temperature control or, depending on the layout of the pipework, a zone control.

A timed temperature control is possible by use of the Oventrop room thermostat-clock or the Oventrop electronic room thermostat Heating/Cooling.

Tender specification:

Room thermostat 230 V / 24 V

Room thermostat with switch for temperature setback, nominal setting via rotary knob, frost protection and thermal feedback.

The control range can be limited by use of the hidden limiting elements (on the reverse side of the rotary knob).

Used in conjunction with electrothermal actuators (two point)..

Temperature range: 5°C up to 30°C
 Temperature setback: about 5 K (via external time switch)
 Operating current: 230 V, 50/60 Hz
 24 V, 50/60 Hz

Switching current: 10 (4) A with 250 V
 Connection of a maximum of 12 electrothermal actuators
 1 (1) A with 24 V
 Connection of a maximum of 3 electrothermal actuators

Type of contact: 1 break contact

Switching temperature difference: about 0.5 K

Protection: IP 30

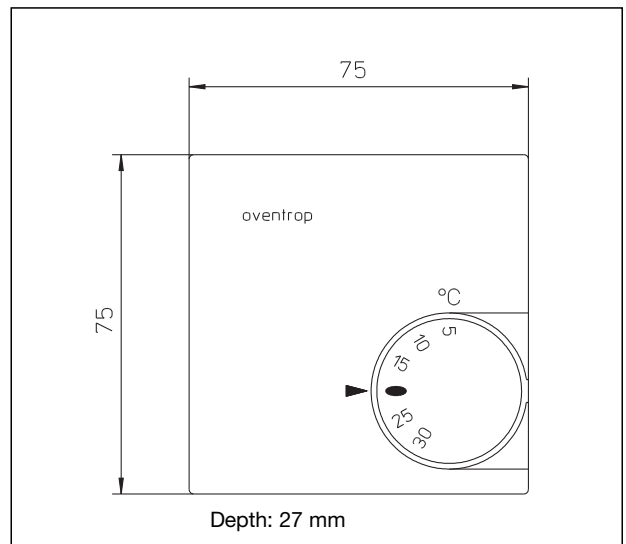
Heating: Use electrothermal actuators closed with current "off"

Cooling: Use electrothermal actuators opened with current "off"

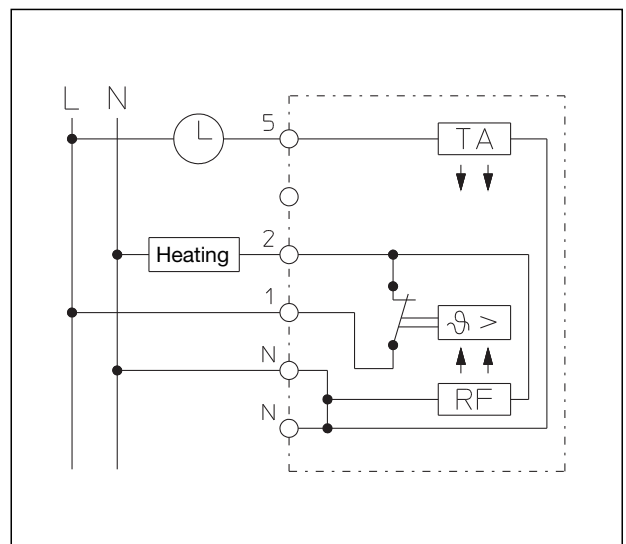
Timed temperature setback by connection to Oventrop room thermostat-clock or Oventrop electronic room thermostat Heating/Cooling.

Item no. 115 20 51 230 V

Item no. 115 20 52 24 V



Room thermostat 230 V / 24 V



Wiring diagram

Tender specification:

Flush-mounted room thermostat 230 V / 24 V
 Room thermostat with switch for temperature setback, nominal setting via rotary knob, frost protection and thermal feedback. The control range can be limited by use of the hidden limiting elements (on the reverse side of the rotary knob).
 Installation in a standard flush socket, Ø 55.
 Used in conjunction with electrothermal actuators (two point).

Temperature range: 5°C up to 30°C
 Temperature setback: about 4 K (via external time switch)
 Operating current: 230 V, 50/60 Hz
 24 V, 50/60 Hz
 Switching current: 10 mA – 10 (4) A
 Connection of a maximum of 12 electrothermal actuators
 1 break contact

Type of contact: 1 break contact
 Switching temperature difference: about 0.5 K

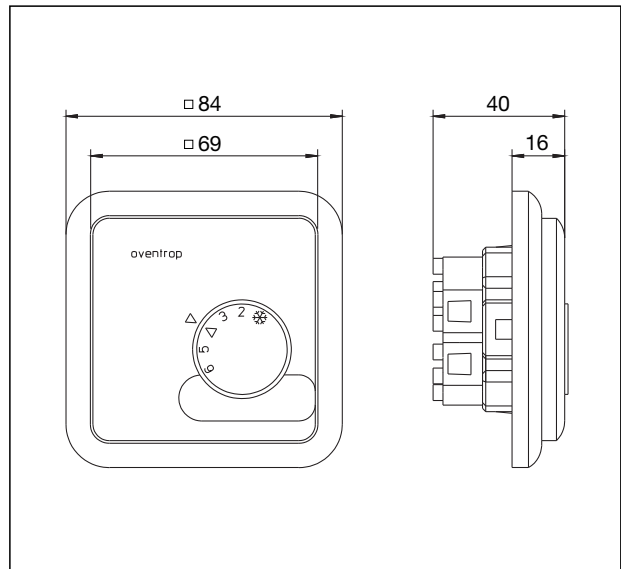
Protection: IP 30
 Installation: in a standard flush socket Ø 55 (according to DIN 49073)

Heating: Use electrothermal actuators closed with current "off"

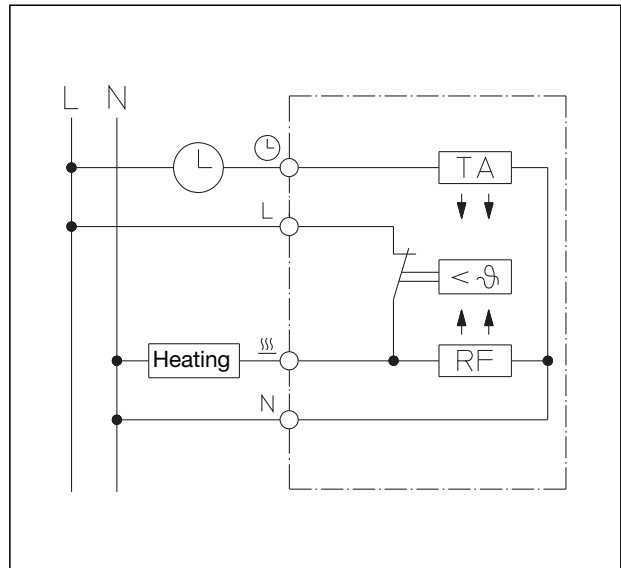
Cooling: Use electrothermal actuators opened with current "off"

Timed temperature setback by connection to Oventrop room thermostat-clock or Oventrop electronic room thermostat Heating/Cooling.

Item no. 115 20 71 230 V
 Item no. 115 20 72 24 V



Flush-mounted room thermostat 230 V / 24 V



Wiring diagram

Tender specification:

Room thermostat-clock 230 V / 24 V

Room thermostat with time switch for timed temperature setback, additional manual control of constant operation and constant setback, nominal setting via rotary knob, frost protection, temperature setback adjustable, output signal pulse-width modulation.

The control range can be limited by use of the hidden limiting elements (on the reverse side of the rotary knob).

Used in conjunction with electrothermal actuators (two point)..

Temperature range: 5°C up to 30°C

Setback temperature: 5°C up to 30°C
(infinitely adjustable,
under the cover)

Regulation behaviour: Proportional control (similar to steady control due to pulse-width modulation)

Proportional band: 1.5 K

Operating current: 230 V, 50/60 Hz
24 V, 50/60 Hz

Power consumption: < 1.5 W

Switching current: 10 mA up to 16 A $\cos \varphi = 1$
max. 4 A $\cos \varphi = 0.6$
Connection of a maximum of 12 electrothermal actuators

Switching voltage: 24 V up to 250 V AC

Type of contact: 1 change-over contact, volt free

Programme switch: Day/Automatic/Night
(under the cover)

Time switch output: 230 V: max. of 50 mA
24 V: max. 150 mA
max. of 20 TA inputs

Switching times: programmable in 15 min. intervals,
for room thermostat with daily setting
programmable in 1 h intervals,
for room thermostat with weekly setting

Power reserve

time switch: about 100 h

Protection: IP 30

Protective system: II

Operating temperature: -10°C up to +40°C,
without condensation

Storage temperature: -25°C up to +65°C

Heating: Use electrothermal actuators closed
with current "off" (terminal 2)

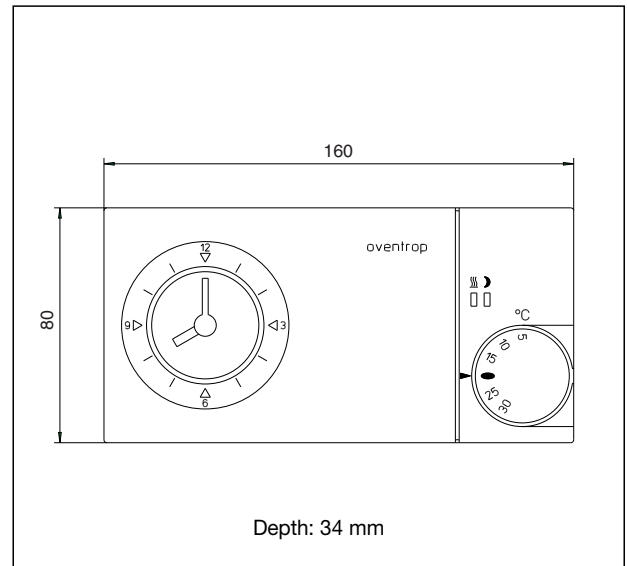
Item no. 115 25 51: 230 V, with daily setting

Item no. 115 25 52: 230 V, with weekly setting

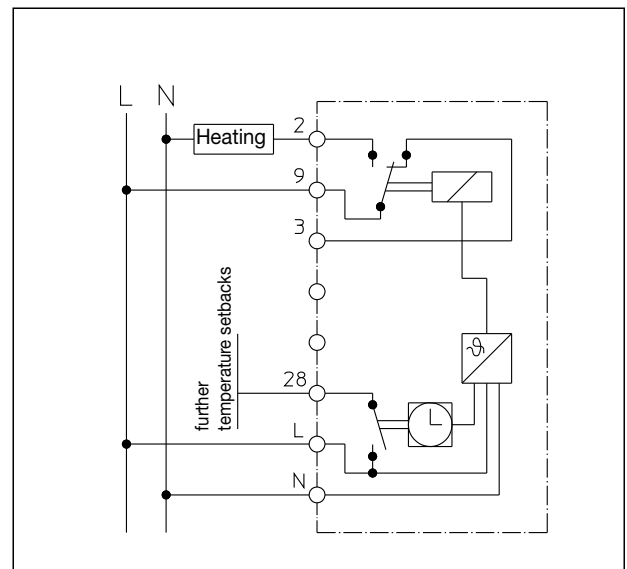
Item no. 115 25 54: 24 V, with daily setting

Protection cover for

room thermostat-clock: Item no. 115 25 91



Room thermostat-clock 230 V / 24 V



Wiring diagram

Tender specification:

Electronic room thermostat 24 V, item no. 115 21 51, room thermostat with one proportional output 0-10 V each for heating and cooling (may be used in four pipe systems). Nominal setting via rotary knob, adjustable neutral zone.

The control range can be limited by use of the hidden limiting elements (on the reverse side of the rotary knob).

Used in conjunction with electrothermal actuator item no. 101 29 51 and electromotive actuator item no. 101 27 00.

Temperature range: 5°C up to 30°C
 Operating current: 24 V, 50/60 Hz
 Power consumption: 0.35 V with 24 V

Outputs: 0-10 V DC
 max output voltage: 13 V
 max. current load: 3 mA

Connection of a maximum of 15 electromotive actuators
 Connection of a maximum of 25 electrothermal actuators

Neutral zone: 2 K (0.5 up to 7.5 K infinitely adjustable)

Proportional band: 1.5 K
 Protection: IP 300

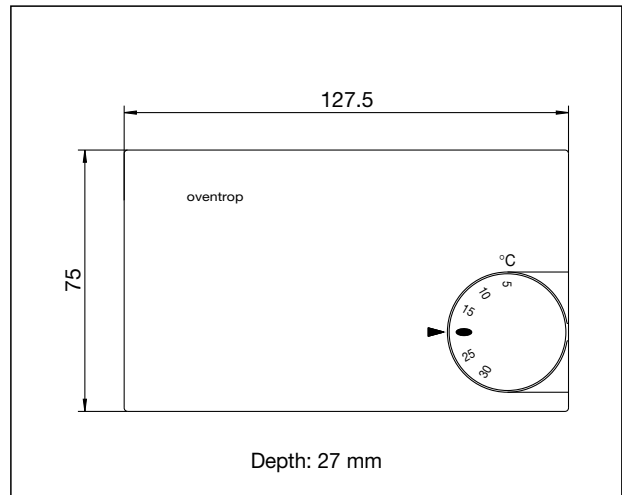
Function:

The nominal value adjusts the temperature at which a voltage of 1.5 V is reached at the output "heating".

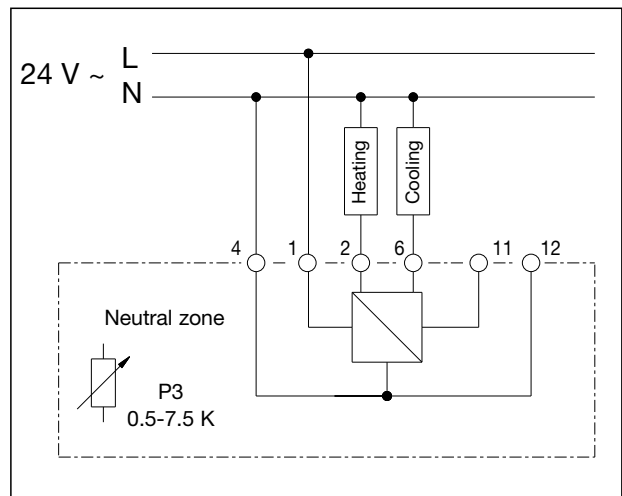
When the temperature rises, the voltage at the output "heating" drops below 1.5 V after having reached the nominal value. When the sensor temperature drops, the voltage at the analogue outlet "heating" rises up to 10 V within the proportional band $X_p = 1.5K$.

If the nominal value has been exceeded (heating "off"), and the sensor temperatures continues to rise, the voltage at the output "heating" drops to almost 0 V and the voltage at the output "cooling" adjusts to 1.5 V after sequence of the neutral zone. If the temperature continues to rise, the voltage at the output "cooling" increases to 10 V within the proportional band $X_p = 1.5 K$.

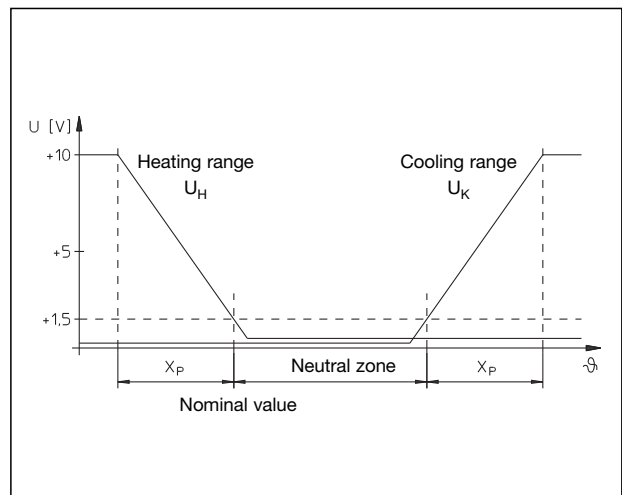
The neutral zone between the two rates is preset at works to 2 K (P3 marking on 2 K). After removal of the upper body housing, the neutral zone can be set between 0.5 K (limit stop on the left hand side) and 7.5 K (limit stop on the right hand side) with the help of the potentiometer P3 (centre of the PC board).



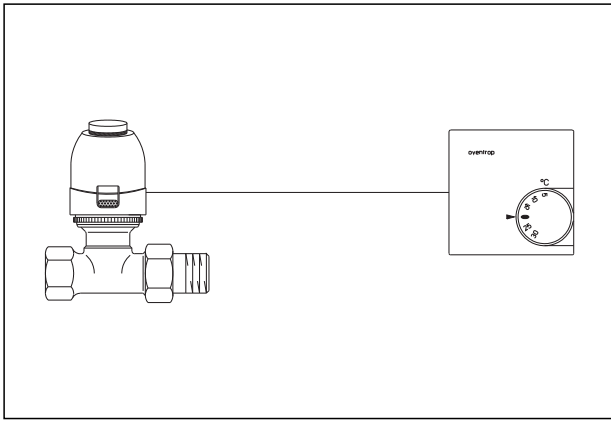
Electronic room thermostat



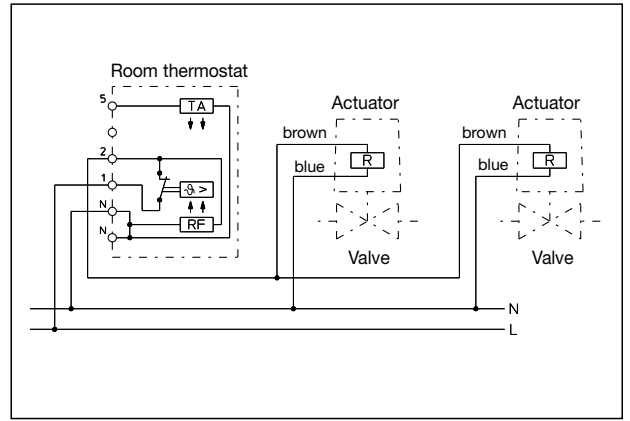
Wiring diagram



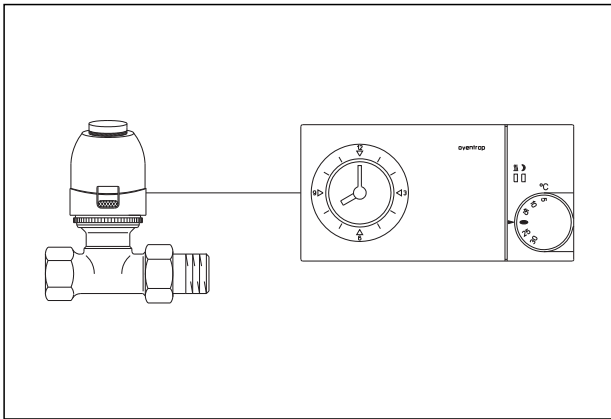
Functional diagram



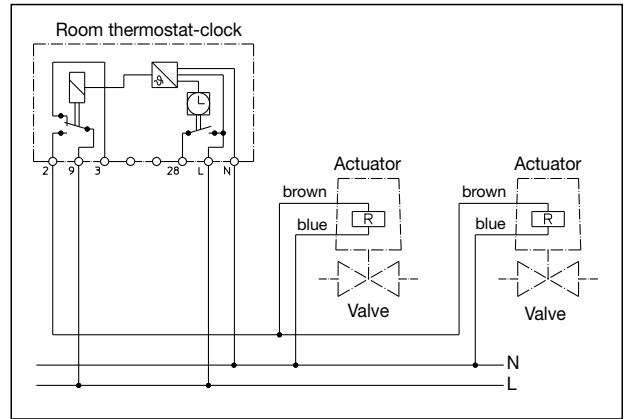
Connection example 1



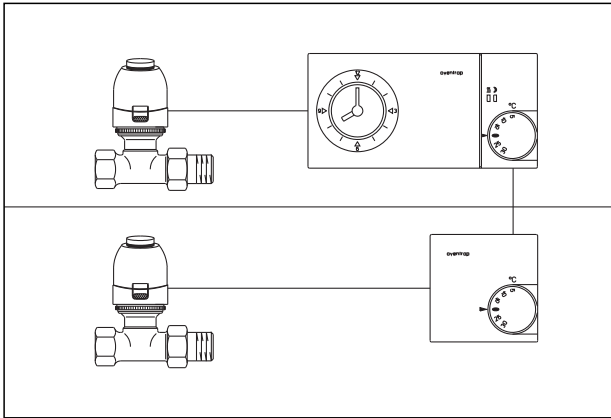
Wiring diagram



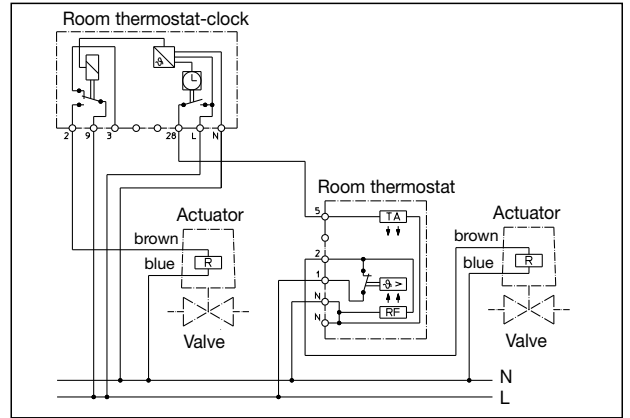
Connection example 2



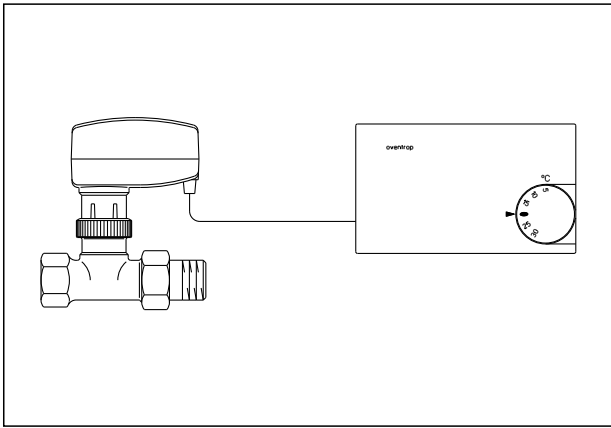
Wiring diagram



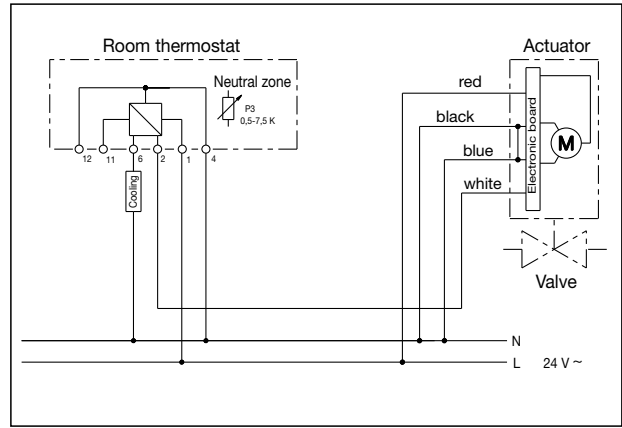
Connection example 3



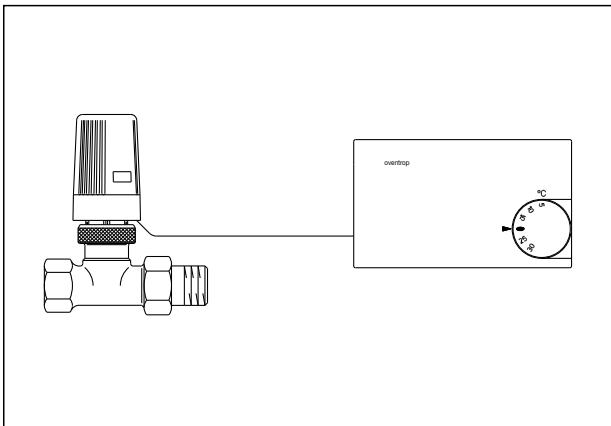
Wiring diagram



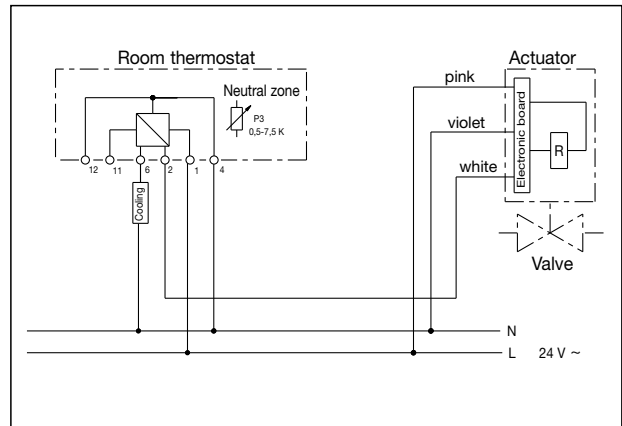
Connection example 4



Wiring diagram



Connection example 5



Wiring diagram

Subject to technical modification without notice.

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