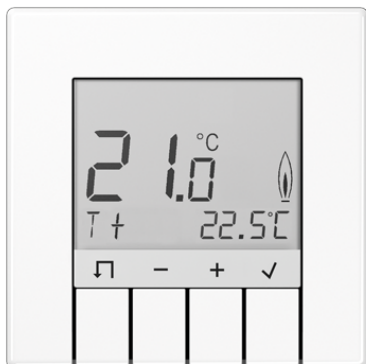


# Product data sheet

## Room thermostat standard with display



### Reference number

TR D LS 231 WW

### Room thermostat standard with display

with white illuminated display  
screw fixing only, without claws

**Delivery capacity is ensured until the end of March 2021.**

### Intended use

- Measurement and feedback control of the room temperature
- Measuring and controlling the floor temperature
- Room temperature control via floor heating with a limiting function (for example in conjunction with tiled stoves)
- Can be used for "heating only" or "cooling only"
- Installation in flush box according to EN 60670-1
- Only for use in dry, enclosed rooms

### Product characteristics

- Large display with backlighting
- Text display for self-explanatory operation
- Different user languages can be selected
- Internal temperature sensor
- An external remote sensor can be connected
- ECO input [clock] for the activation of a freely settable temperature, e.g. for night reduction
- Time limit for the manually selected temperature
- Simply switch between 2 temperatures (comfort, reduction)
- Short-time timer ("party function")
- Frost protection function
- Display of energy consumption for electric heating systems
- Pulse width modulation (PWM) or two-point control system
- Adjustable cycle time (PWM), hysteresis and minimum on/off time (two-point)
- Switch-on delay, such as for burners (with two-point control)
- Adaptation to valves normally open or normally closed)
- Valve protection (as a room temperature controller with and without a limiting function)
- Separate resetting of user and installer settings
- Heating interruption acc. to EN 50559 adjustable (not for valves opened without power)

The control method depends on the type of heating and is determined by the installer:

**Room thermostat:** The heating is turned on when the room temperature falls below the set target temperature (measured with an internal sensor or external remote sensor).

**Floor thermostat:** The underfloor heating is turned on when the floor temperature falls below the set target temperature (measured using an external remote sensor).

**Room thermostat with a limiter (in conjunction with underfloor heating):** The room temperature is measured and regulated using the internal sensor. An additional external remote sensor is connected to measure the floor temperature, and a target temperature range for the floor is set. The room temperature control is deactivated when the floor temperature is outside of this range. If temperature falls below this range, the heater is turned on, and if the temperature is above this range, the heater is turned off independent of the current room temperature.

**Accessories:**  
external sensor ref.-no.: FF 7.8

## Technical data

Rated voltage:	AC 230 V ~, 50 Hz, neutral conductor required
Output:	relay (NO contact)
Switching current	
as room thermostat:	10 mA ... 10 (4) A, 230 V ~
as floor thermostat:	10 mA ... 16 (4) A, 230 V ~
Power consumption:	approx. 1.2 W
Ambient temperature:	0 ... +40 °C (no condensation)
Storing temperature:	-20 ... +70 °C (no condensation)
Temperatur-Regelbereich:	in increments of 0.5 °C
as room thermostat:	5 ... 30 °C
as floor thermostat:	10 ... 40 °C
Temperature indication:	in increments of 0.1 °C
Output signal:	pulse width modulation (PWM) or two-point control (on/off)
PWM cycle time:	adjustable (10 ... 30 min)
Hysteresis:	adjustable (with two-point control)
Minimum switching time:	adjustable (1 ... 30 min)
Power reserve:	approx. 10 years (lithium cell)

**Thermoplastic (breakproof) high-gloss**

**Colour:**  
white

**Material:**  
thermoplastic