




DTM-RP

PWM ROOM THERMOSTATS

- Room thermostat with or without display
- Supports PWM thermic actuators
- With external T° sensor input (NTC 10kΩ)
- Dead zone adjustable (0 .. 3°C)
- Cooling mode can be disabled

Room

PWM

DESCRIPTION

The DTM-RP is made for individual room and zone control applications. Temperature is measured by the internal (or external) NTC 10kΩ sensor. The room temperature is maintained at the set point by modulating the position of the actuator to meet the cooling (green light) or heating (red light) demand.

The thermostat supports thermic actuators for heating and cooling by using 20s pulse width modulation (PWM).

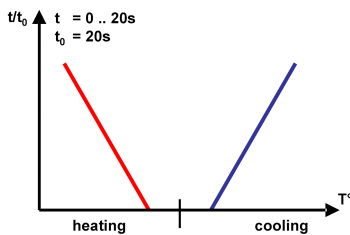
DTM-RP-LCD has built-in display which indicates the room temperature. During commissioning the display indicates the settings of the thermostat. When any of the settings is adjusted, the display automatically switches to display that value, and returns to normal operation after 2 seconds delay.

The dead zone (no red or green light) between heating and cooling is adjustable (0 .. 3°C).

The cooling mode can be disabled by connecting Z1=G₀ using an external switch.

The middle point of the set point potentiometer can be changed to the desired value by opening and closing the jumper S3. The P-band of the controller can be selected by S2.

As an option, the thermostat can be delivered with a 5-position switch.

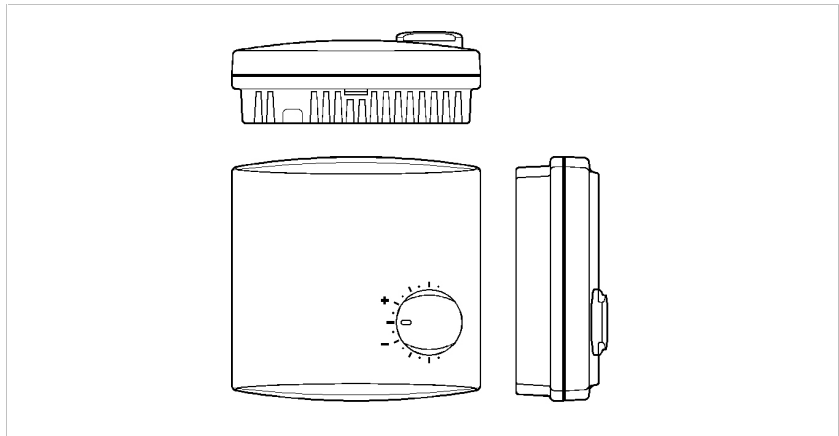


TECHNICAL DATA

TYPE
DTM-RP

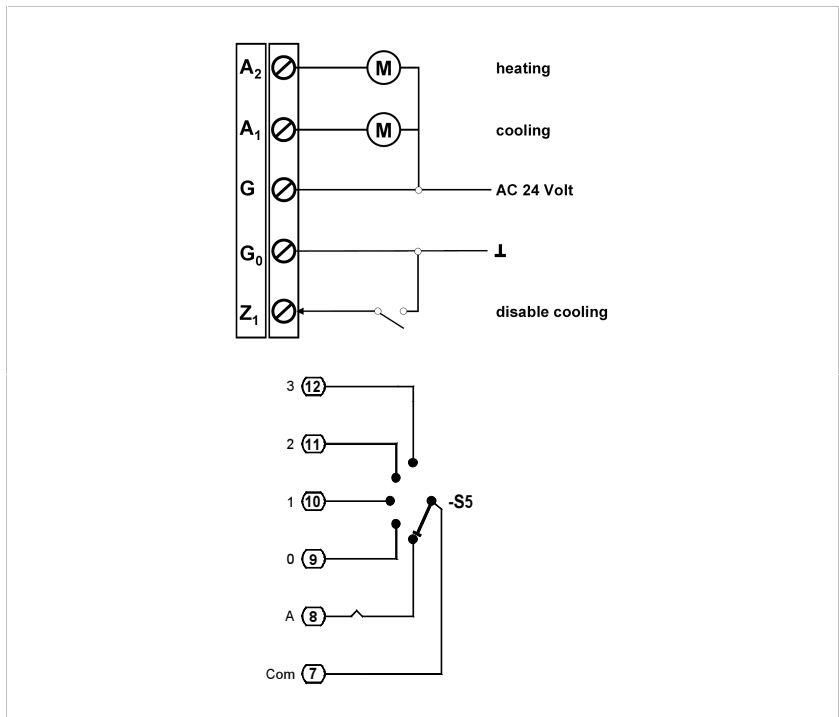
Power supply	AC 24 Volt (20...26V) / 2 VA
Setpoint	+18°C .. +24°C, ±3°C (factory default: +21°C)
Accuracy	±0.5°C
Dead Zone	D _z = 0..3°C (factory default : 0.2°C)
Proportional Band	X _p = 1°C or 2°C (factory default = 4°C)
Outputs A ₁ and A ₂	AC 24 Volt (20...26V) / 2 VA
Protection Class	IP20
Operating Humidity	0..85% rH, non-condensing
Wiring Terminals	1.5 mm ²
Housing	ABS plastics, IP20
Dimensions	85 x 85 x 32 mm

DIMENSIONS

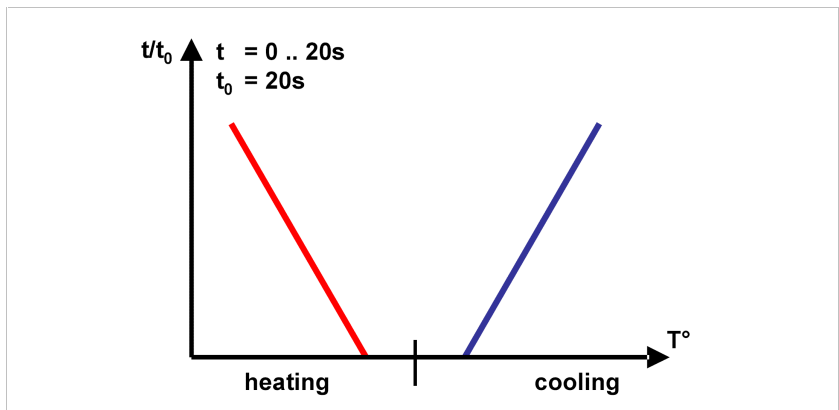


85 x 85 x 32 mm

WIRING DIAGRAM



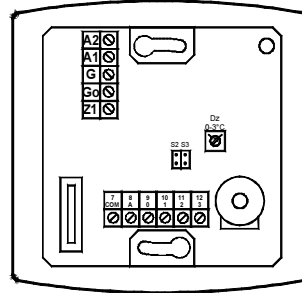
FUNCTIONAL DIAGRAM



BEHAVIOUR CODING BY JUMPERS (ON/OFF)

S2	off on*	proportional band	Xp = 2 °C Xp = 1 °C
S3	off+on	change of the middle point (of potentiometer)	

* factory setting



Caution

1. The electrical installation, device connection and commissioning can only be carried out by qualified professionals and according to the local wiring regulations!
2. The outputs are connected to G₀ (= earth).
3. When any of the settings is adjusted, the display automatically switches to display that value, but returns to normal operation after 2 seconds delay.
4. When the cooling is disabled but demanded the green light is blinking every 30s.

ORDERING INFORMATION

TYPE	AC 24 VOLT	PWM	5-Pos. SWITCH	EXT. SENSOR	LCD DISPLAY
DTM-RP	◆	heating/cooling			
DTM-RP-LCD	◆	heating/cooling			◆
DTM-RP-X	◆	heating/cooling		◆	
DTM-RP-X-LCD	◆	heating/cooling		◆	◆
DTM-RP-X-S5	◆	heating/cooling	◆	◆	
DTM-RP-X-S5-LCD	◆	heating/cooling	◆	◆	◆