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## JUMO Room Thermostats (1-pole) Type AMDR

### Brief description

Type AMDR room thermostats are used in HVAC, in industrial and commercial premises, garden centers and stables for the control of heating / cooling, air-conditioning and ventilation systems. Room thermostats in the AMDR series operate on the principle of liquid expansion. A temperature change in the liquid-filled sensing system, which consists of probe, capillary and diaphragm, produces a volume change. The resulting movement of the diaphragm operates a microswitch through a lever mechanism.

### Switching action

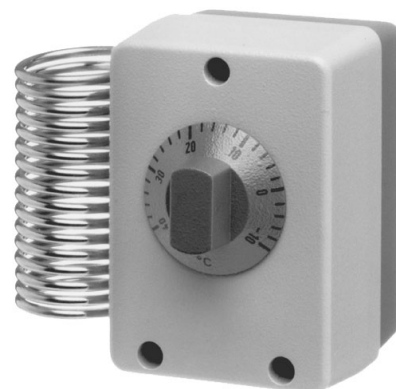
#### TR and TW

If the temperature at the probe exceeds the set limit, the circuit is opened through a snap-action switch. If the temperature falls below the set limit (by the switching differential), the switch returns to its initial position.

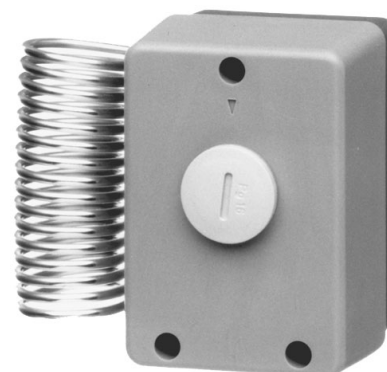
### Types

**AMDR-1** Temperature controller TR,  
switching point externally adjustable

**AMDR-2** Temperature monitor TW,  
switching point adjustable after removing the screw plug



AMDR-1



AMDR-2

## Technical data

### Electrical data

Switching element	1-pole microswitch with changeover contact
Max. rating	terminal 2: 16 (3) A, 230 V AC +10%, p.f. = 1 (0.6) terminal 4: 8 (1.5) A, 230 V AC +10%, p.f. = 1 (0.6) 0.25 A, 230 V DC +10% max. starting current: 16 A, p.f. = 0.6
Electrical connection	after removing housing cover, at screw terminals up to 2.5mm <sup>2</sup> conductor cross-section

### Operating data

Control ranges	0 to +50°C or -10 to +40°C
Switching point accuracy	±0.75°C at +20°C
Switching differential	1 – 2°C
Permissible ambient temp.	in operation: -20 to +60°C
Permissible storage temp.	-50 to +50°C
Nominal position (NL)	to DIN 16 257, NL 0 – NL 90 (other NL on request)

### Housing

Housing	plastic housing in impact-resistant polycarbonate color: cover gray beige, RAL 1019; base/setpoint knob light brown RAL 8025
Housing fixing	by 2 screws on the inside of housing
Cable entry	as standard: clamping gland M 20 x 1.5, for 8 – 10 mm cable diameter
Enclosure protection	IP54 to EN 60 529
Temperature probe	coiled probe, tinned copper
Weight	approx. 0.35 kg

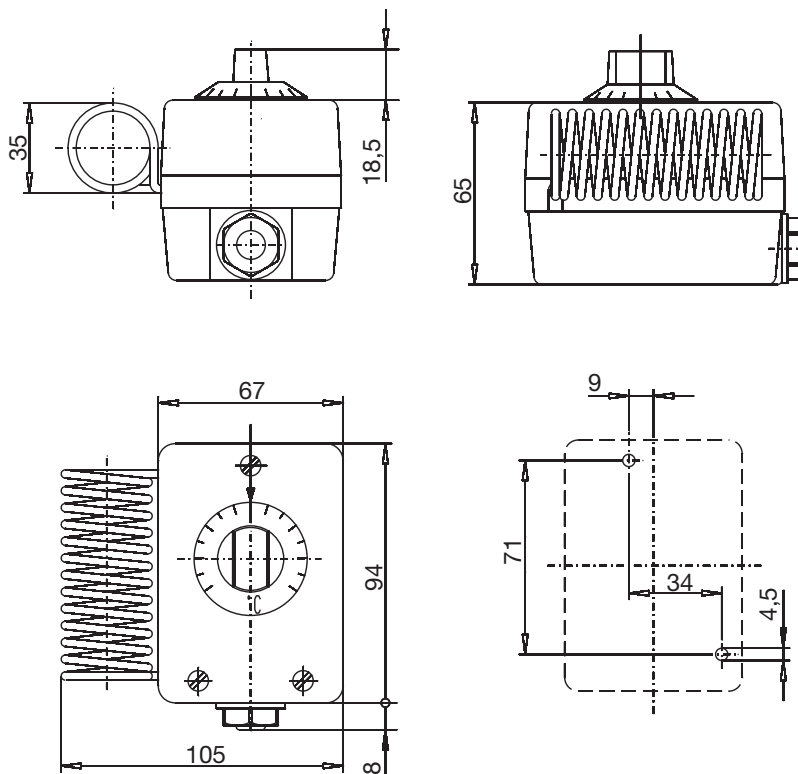
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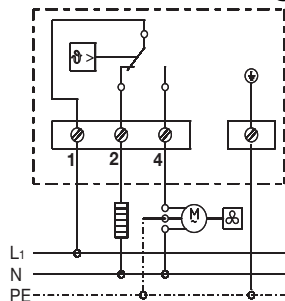
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## Dimensions



## Connection diagram



## Order details: AMDR Series

<b>Order code</b>	<b>(1) Basic type</b>
604046	Room thermostat, AMDR series
	<b>(2) Basic type extension</b>
01	AMDR-1 Temperature controller (TR), switching point externally adjustable by rotary knob
02	AMDR-2 Temperature monitor (TW), switching point adjustable with screwdriver after removing the screw plug
	<b>(3) Control / limit ranges</b>
016	-10 to +40°C
021	0 to +50°C

## Order code

(1) 604046 / (2) .. - (3) ...

### Order example

604046 / 02 - 016 = Temperature monitor (TW),  
switching point adjustable with screwdriver after removing the screw plug, -10 to +40°C