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JUMO Room thermostats Type ATHR

Brief description

Type ATHR 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 ATHR 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

Temperature controller TR and temperature monitor 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

Single thermostats

- ATHR-1** temperature controller TR
switching point externally adjustable
- ATHR-2** temperature monitor TW
switching point adjustable after removing case cover

Twin thermostats

- ATHR-11** 2 x temperature controller TR
- ATHR-12** 1 x temperature controller TR / 1 x temperature monitor TW
- ATHR-22** 2 x temperature monitor TW



Technical data

Electrical data

Switching element	Single thermostat	Twin thermostat
	1 microswitch with changeover contact	2 microswitches with changeover contact
Max. contact rating	10 (2) A, 230 V AC +10%, p.f. = 1 (0.6) 0.25 A, 230 V DC +10%	

Operating data

Control ranges	0 to +50°C or -10 to +40°C
Switching point accuracy	±0.5°C at 20°C
Switching differential	0.5 — 1.5°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)

Case

Case	plastic case in impact-resistant polycarbonate color: cover pebble gray – RAL 7032, base anthracite gray – RAL 7016	
Case fixing	by 2 screws on inside of case	
Cable entry	as standard: clamping gland M 20 x 1.5, for 8 — 10 mm cable diameter	
Enclosure protection	EN 60 529-IP54	
Temperature probe	1 or 2 coiled probe(s), tinned copper	
Weight	approx. 0.35 kg	approx. 0.65 kg

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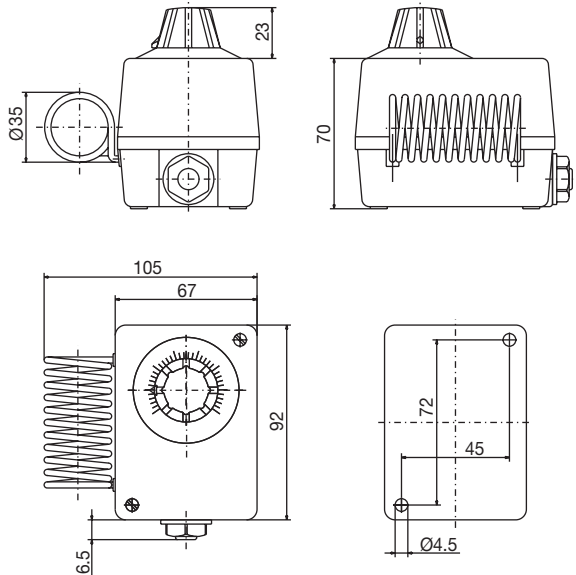
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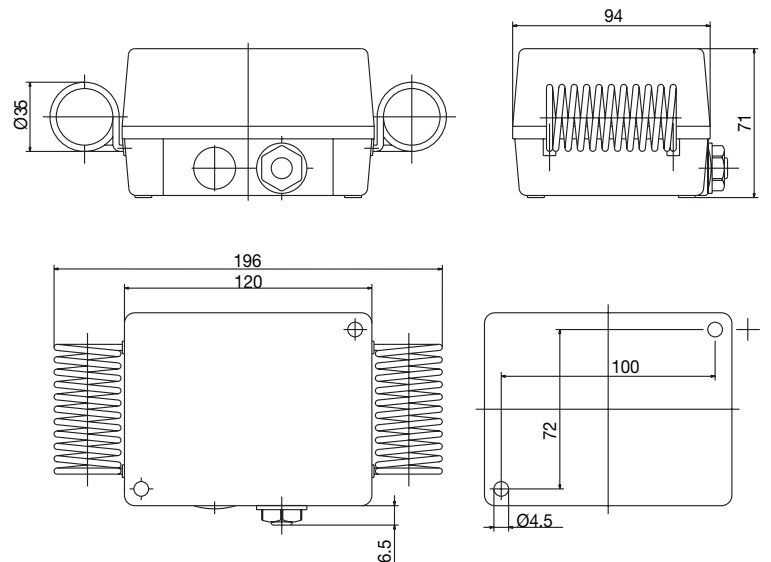


Dimensions

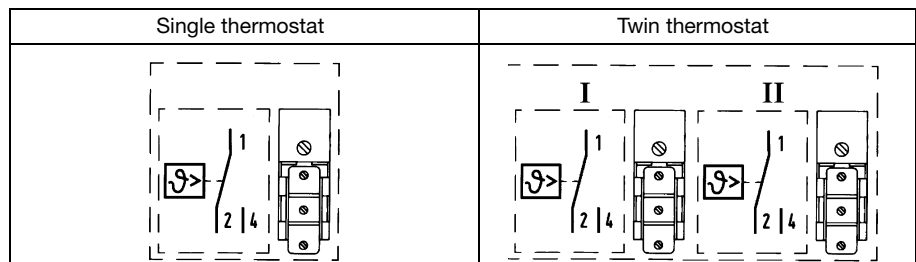
ATHR-1



ATHR-22



Connection diagrams

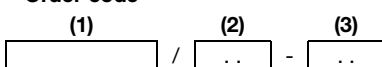


Order details:

ATHR series

Order code	(1) Basic type
604024	room thermostat Typ ATHR
(2) Basic type extension	
01	ATHR-1 1 x temperature controller TR, switching point externally adjustable
02	ATHR-2 1 x temperature monitor TW, switching point adjustable after removing case cover
11	ATHR-11 2 x temperature controller TR, switching point externally adjustable
12	ATHR-12 1 x temperature controller TR, switching point externally adjustable, 1 x temperature monitor TW, switching point adjustable after removing case cover
22	ATHR-22 2 x temperature monitor TW, switching point adjustable after removing case cover
(3) Control / limit ranges	
16	-10 to + 40°C
21	0 to + 50°C

Order code



Order example

/ - = thermostat with microswitch and changeover contact, 1 x temperature controller TR, switching point externally adjustable, 0 to + 50°C

/ - = thermostat with microswitch and changeover contact, 1 x temperature controller TR, switching point externally adjustable, 1 x temperature monitor TW, switching point adjustable after removing case cover, -10 to + 40°C