

# Bimetal room temperature controllers

For surface installation – Design Berlin 2000



## Technical data

<b>Operating voltage:</b>	250 V ~; 24 V ~ / 50 / 60 Hz
<b>Sensor:</b>	bimetal
<b>Switching current:</b>	see circuit diagram
<b>Setting ranges:</b>	5 ... 30°C; 10 ... 60°C; -20 ... +30°C
<b>Switching difference:</b>	approx. 0.5 K
<b>Temperature decrease:</b>	approx. 4 K
<b>Degree of protection:</b>	IP 30
<b>Protection class:</b>	II, after according installation
<b>General equipment:</b>	thermal recirculation, mechanical range suppression
<b>Admissible air moisture:</b>	max. 95 % r. H., non condensing
<b>Storage temperature:</b>	-20 ... +70°C
<b>Radio interference suppression:</b>	EN 60730
<b>Ambient temperature:</b>	0 ... 30°C, 10 ... 60°C, -20 ... +30°C (depending on the temperature range)
<b>Housing colour:</b>	pure white, similar to RAL 9010
<b>Housing material:</b>	plastic (ABS)
<b>Mounting / installation:</b>	surface / wall installation (4 hole fixing on an UP box)
<b>Weight:</b>	approx. 90 g
<b>Electrical connections:</b>	terminal screws

## Application

Control or supervision of temperatures in closed rooms. Suited for all types of heating systems.

Valve: normally closed type. Normally open heating valves must, if existing, be connected to the cooling outlet of the changeover contact.

Up to 10 valve actuators can be connected (break contact) and up to 5 actuators to the changeover contact (regarding thereto, also please pay regard to the switching capacity information in the "circuit diagram").

Specially suited for use with **switch cabinets**, see type PTR 01.082

Other climate controllers as of page 37.

Model / Picture	Item No.	Equipment	Circuit diagram	PG
	MA 010000  Replaces PTR 01.000	Break contact, 5 ... 30°C	RTBSB-001.000  10(4)A 250V ~  T <sub>max</sub> = 30°C 4K/h  	A
	MA 010100  Replaces PTR 01.002	Break contact, 5 ... 30°C, temperature decrease function	RTBSB-001.002  10(4)A 250V ~  T <sub>max</sub> = 30°C 4K/h  	A
	MA 010200  Replaces PTR 01.010	Changeover contact, 5 ... 30°C	RTBSB-001.010  Kl.3: 10(4)A250V~ Kl.1: 5(2)A250V~  T <sub>max</sub> = 30°C 4K/h  	A
	MA 010900  Replaces PTR 01.025/026/054	Changeover contact, 5 ... 30°C, ON / OFF switch, permanently operated fan	RTBSB-001.026  Kl.1,2: 5(2)A250V~ Kl.3: 10(4)A250V~  T <sub>max</sub> = 30°C 4K/h  	A
	MA 011200  Replaces PTR 01.045	Changeover contact, -20 ... +30°C	RTBSB-001.045  Kl.3: 10(4)A250V~ Kl.1: 5(2)A250V~  -20 T 30 4K/h  	A


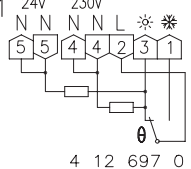
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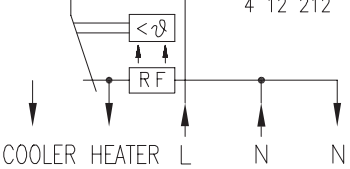
Model / Picture	Item No.	Equipment	Circuit diagram	PG	
	MA 011300 Replaces PTR 01.048	Changeover contact, <b>10...60°C</b>	RTBSB-001.048 KI.3: 10(4)A250V~ KI.1: 5(2)A250V~ $T_{max} = 60^{\circ}\text{C}$ 4K/h 	 4 12 684 0	A
	MA 011400 Replaces PTR 01.050	Break contact, 5...30°C, ON / OFF switch, indicator lamp, switch / indicator lamp "additional heating"	RTBSB-001.050 Total current 10(4)A $\frac{250\text{V}}{\sim}$ $T_{max} = 30^{\circ}\text{C}$ 4K/h 	 4 12 685 0	A
	MA 012400 <b>New</b> Replaces PTR 01.034/073/074	Break contact, 5...30°C, ON / OFF switch, temperature decrease function, heating indicator lamp	RTBSB-001.062 $\frac{10(4)\text{A}}{250\text{V}}$ ~ $T_{max} = 30^{\circ}\text{C}$ 4K/h 	 4 12 690 0	A
	MA 010600 Replaces PTR 01.065	Changeover contact, 5...30°C, heating/cooling switch <b>Climate controller for use            with 2-pipe systems,            especially heat pumps</b>	RTBSB-001.065 $\frac{5(2)\text{A}}{250\text{V}}$ ~ $T_{max} = 30^{\circ}\text{C}$ 4K/h 	 4 12 618 0	A
	MA 010500 Replaces PTR 01.075	Changeover contact, 5...30°C, triple switch "temperature de- crease / heating / temperature decrease via external timer", temperature decrease mode indicator lamp	RTBSB-001.075 KI.3: 10(4)A250V~ KI.1: 5(2)A250V~ $T_{max} = 30^{\circ}\text{C}$ 4K/h 	 4 12 606 0	A
	MA 010800	Break contact, 5...30°C, numeric scale 1...6, <b>switching            capacity 3000 Watt</b> , for use with direct electrical heating sy- stems, such as marble heating systems and others. Precursor model PTR 01.086 + plug-in socket (see page 15)	RTBSB-001.086 $\frac{13(4)\text{A}}{250\text{V}}$ ~ T30 [max.3000W] 4K/h Do not connect terminal 4 as of a calorific output of 1500W! 	 4 12 629 0	A
	MA 012500 <b>New</b>	Break contact, 5...30°C, numeric scale 1...6, <b>switching            capacity 3000 Watt</b> , heating indicator lamp. Suited for use with electrically operated direct-heatings, such as marble heatings and others.	RTBSB-001.096 $\frac{13(4)\text{A}}{250\text{V}}$ ~ [max.3000W] $T_{max} = 30^{\circ}\text{C}$ 4K/h 	 4 12 686 0	A
	MA 011700 Replaces PTR 01.202	Break contact, 5...30°C, temperature decrease function, <b>24 V~</b>	RTBSB-001.202 $\frac{1(1)\text{A}}{24\text{V}}$ ~ $T_{max} = 30^{\circ}\text{C}$ 4K/h 	 4 12 687 0	A
	MA 012000 Replaces PTR 01.902 PTR 01.910	Changeover contact, temperature decrease function, <b>internal setting</b>	RTBSB-001.910 KI.3: 10(4)A250V~ KI.1: 5(2)A250V~ $T_{max} = 30^{\circ}\text{C}$ 4K/h 	 4 12 688 0	A

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Model / Picture	Item No.	Equipment	Circuit diagram	PG
<b>RTBSB-001.948/1</b> 	MA 012600 Replaces PTR 01.910/2 (24 V) PTR 01.948/1	Changeover contact, <b>internal setting, 10...60°C,</b> <b>230 V ~ / 24 V ~</b>	RTBSB-001.948/1 24V 230V N N N N L L * *  KI.3: 10(4)A 250V~ KI.1: 5(2)A 250V~ KI.1+3: 2(2)A 24V~ 10T60 4K/h CE	A

Specially suited for the installation in **switch cabinets** (design Pikolo).  
 For the protection of electrical and electronic components against heat, cold and moisture.

Model / Picture	Item No.	Equipment	Circuit diagram	PG
<b>PTR 01.082</b> 	A 201302	Changeover contact, 230 V ~, heating 10 (4) A, cooling 5 (2) A, 10...60°C, switching difference approx. 2 K, installation on DIN rail	 4 12 212 1	A

