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# Surface Type Room Temperature Controller super-slim design - silent switching device



only 13.9 mm deep

Technical data		Application
<b>Operating voltage:</b>	see "Features"	This Heating controller has been specially devised for the control and supervision of temperatures in offices, living spaces and hotels. It can trigger up to 5 valve drives (24 V~ or 230 V~, normally closed types). The HTRTB is equipped with an internal sensor. This sensor captures the currently existing room temperature and, as soon as it detects a deviation of the actual value from the adjusted set value, activates the heating system as needed. The triac switching element used in place of a relay or bimetal relay, produces, in contrast to these components, no switching noises during the operation of the device.
<b>Sensor:</b>	NTC – internal	
<b>Switching element:</b>	triac	
<b>Switching capacity:</b>	15 W (max. 5 actuators 24 V~, normally closed types)	
<b>Setting range:</b>	5 ... 30 °C	
<b>Scale:</b>	°C scale	
<b>Power consumption:</b>	< 0,8 W (5 VA)	
<b>Electrical connections:</b>	screw terminals 0,5 ... 1,5 mm <sup>2</sup>	
<b>Admissible ambient temperature:</b>	0 ... 40 °C	
<b>Admissible storage temperature:</b>	- 20 ... + 70 °C	
<b>Admissible air moisture:</b>	max. 95 % r.h., non-condensing	
<b>Indication (LED):</b>	yellow = heating	
<b>Housing design:</b>	Berlin 1000	
<b>Housing material and colour:</b>	plastic (ABS), pure white (similar to RAL 9010)	
<b>Protection class:</b>	see "Features"	
<b>Degree of protection:</b>	IP30	
<b>Mounting method:</b>	surface / wall mounting (4-hole fi xing on UP box)	

Type / Picture	Item no.	Features	Wiring diagram	Euro / WG
HTRTB-250.100	MA700700	24 V~, protection class III, max. 5 actuators 24 V~, normally closed types		53,70 / I
HTRTB-210.100	MA700600	230 V~, protection class II (after corresponding installation), max. 5 actuators 230 V~, normally closed types		57,10 / I



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# Surface Type Room Temperature Controller super-slim design - silent switching device



only 13.9 mm deep

Technical data		Application
<b>Operating voltage:</b>	see "Features"	This Air-conditioning regulator has been specially devised for the control and supervision of the heating and cooling operations performed by 2-pipe systems existing in hotel rooms, living spaces and business premises. The device is able to trigger up to 5 valve drives (24 V~ or 230 V~, normally closed types). The KTRTB measures, based on the data delivered by an internal sensor, the temperature that exists in the related room and, in the event a deviation of the actual value with regard to the set value is detected, triggers the activation of the heating or cooling installation as needed. The triac switching element used in place of a relay or bimetal relay, produces, in contrast to these components, no switching noises during the operation of the device.
<b>Sensor:</b>	NTC – internal	
<b>Switching element:</b>	triac	
<b>Switching capacity:</b>	15 W (max. 5 actuators, normally closed types)	
<b>Setting range:</b>	5 ... 30 °C	
<b>Scale:</b>	°C scale	
<b>Power consumption:</b>	< 0,8 W (5 VA)	
<b>Electrical connections:</b>	screw terminals 0,5 ... 1,5 mm <sup>2</sup>	
<b>Admissible ambient temperature:</b>	0 ... 40 °C	
<b>Admissible storage temperature:</b>	- 20 ... + 70 °C	
<b>Admissible air moisture:</b>	max. 95 % r.h., non-condensing	
<b>Indication (LED):</b>	yellow = heating, blue = cooling	
<b>Housing design:</b>	Berlin 1000	
<b>Housing material and colour:</b>	plastic (ABS), pure white (similar to RAL 9010)	
<b>Protection class:</b>	see "Features"	
<b>Degree of protection:</b>	IP30	
<b>Mounting method:</b>	surface / wall mounting (4-hole fi xing on UP box)	

Type / Picture	Item no.	Features	Wiring diagram	Euro / WG
KTRTB-251.108	MA700400	24 V~, protection class III, max. 5 actuators 24 V~, normally closed types		64,80 / I
KTRTB-211.108	MA700300	230 V~, protection class II (after corresponding installation), max. 5 actuators 230 V~, normally closed types		68,00 / I

The controller is equipped with a joint heating/cooling output, the changeover operations of which are being triggered by an external contact (changeover contact). All controllers used for the management of the overall system can, based on this function, be changed over from one central point. The control direction of the device can, by means of the switch marked as switch No. 2 (see wiring diagram), be adapted to the operations triggered via this contact.

The operation in energy economizing mode can be triggered via an external contact (ECO contact). Selecting this mode enables to adjust to a temperature value that is by 3K lower while heating and to adjust to a temperature value that is by 3K higher while cooling. This allows, controlled by, for example, a time contact, to save energy in all currently unoccupied or unused rooms or floors in a centralised manner. The switch marked as switch No. 1 (see wiring diagram) allows to adapt the controller in such a manner that, instead of a decrease/increase of the temperature, it is being deactivated (frost protection function remains active).