BUILDING AUTOMATION
CONTROL TECHNOLOGY
SENSOR TECHNOLOGY

alre

TEMPERATURE CONTROLLER FOR HEATING AND AIR CONDITIONING

Intelligent solutions
for intelligent buildings

Mechanical room temperature regulator

for "superflat" surface-mounted installation – Design Berlin 1000

Technical Data	
Sensor:	Bimetal
Type:	several different versions (Pictured RTBSB-201.062)
Equipment:	Break contact, temperature decrease, "ON / OFF" switch, "Heating / Cooling" switch, "Decrease / Heating / Decrease via external timer" switch, "Heating" light, insulated cover, protective cap, thermal recirculation, mechanical range suppression.
Application:	Regulation or monitoring of temperatures in closed rooms

13,9 mm

Surface-mounted installation – Design Berlin 2000

Technical Data	
Sensor:	Bimetal
Type:	several different versions (Pictured RTBSB-001.062)
Equipment:	Break contact, temperature decrease, "ON / OFF switch, "Heating / Cooling" switch, "Decrease / Heating / Decrease via external timer" switch, "Heating" light, "Decrease" light, "Auxiliary Heating" switch / light, continuous fan, thermal recirculation, mechanical range suppression, internal setting. Variante „2-wire-controller", 3000W switching capacity, 230V~ / 24V~
Application:	Control or supervision of temperatures in closed rooms

Flush-mounted installation – Design Berlin UP

Technical Data	
Sensor:	Bimetal
Switching capacity (Break contact):	10 (4) A / 230 V ~ bzw. 13 (4) A / 250 V ~, 1 (1) A / 24 V ~
Type:	several different versions (Pictured FTR 101.000#21)
Equipment:	Break contact, temperature decrease, "ON / OFF" switch, "Heating / Cooling" switch, "Decrease / Heating / Decrease via external timer" switch, "Heating" light, "Decrease" light, "ON / OFF" light, thermal recirculation, mechanical range suppression, internal setting, insulated cover, protective cap, up to 3000W switching capacity, 230V~ / 24V~
Application:	Control and supervision of temperatures in closed, dry rooms. Suited for almost all types of heating systems.
Cover versions:	50 x 50 mm and 55 x 55 mm (colours similar to RAL 9010, 1013 or 9016 / glossy or matt)

Electronic room temperature regulator silent

for "superflat" surface-mounted installation – Design Berlin 1000

Technical Data	
Sensor:	NTC internal
Type:	HTRTB-250.100 – 24 V ~ / HTRTB-210.100 – 230 V ~
Equipment:	Mechanical range suppression, if the Decrease function via an external contact is desired (approx. 3 K), the climate controllers KTRTB-251.108 – 24 V ~ / KTRTB-211.108 – 230 V ~ can be used
Application:	Control or monitoring of temperatures in enclosed spaces with triac as switching element (noiseless switching)

13,9 mm

Electronic room temperature regulator with timer

Surface-mounted installation – Design Berlin 3000

Technical Data	
Sensor:	NTC internal
Type:	HTRRBu-110.117/21 (Picture) / HTRRBu-110.121/21
Equipment:	mechanical range suppression, summer / winter time switching, child lock / valve protection, 4-day power reserve, backlighting (Typ HTRRBu-110.121/21). Simple to operate with direct dial "ON / OFF" buttons holiday setting, party setting, operating mode and information retrieval for displaying all settings, temperature dial with °C scale self-learn function (can be deactivated), 230 V ~
Application:	For the time-dependent control of temperatures in closed rooms. Suited for all kinds of heating systems.

Electronic room temperature regulator with timer and floor monitoring

Surface-mounted installation – Design Berlin 3000

Technical Data	
Sensor:	NTC internal, 2K NTC external (HF-8/4-K2)
Type:	HTRRBu-110.122 / HTRRBu-110.123 (Picture)
Equipment:	Remote sensor 4 m (DIN 44574) for limiting floor temperature (internal scale 20 … 42 °C). Temperature decrease (adjustable – factory setting 17 °C) can be triggered by timer or operating mode. Extremely simple operation thanks to direct access buttons for "ON / OFF", holiday setting, party setting, operating mode and display of all settings. Temperature dial with °C scale, self-learn function. Display: temperature, time and symbols according to setting, backlit (Typ HTRRBu-110.123), 230V~
Application:	For time-dependent temperature control in closed rooms. For the heating of floors, of fringe zones, bathrooms, ceilings, tiled stoves, marble and / or wall heating systems or tempering systems.

Electronic room or floor temperature control with clock

Flush-mounted installation – Design Berlin UP

Technical data	
Sensors:	NTC internal, NTC – can be connected externally (optional)
Type:	different possible variants (pictured HTRRUu-210.021#21)
Features:	illuminated, graphic display, display "Heating", backlight, operating mode Off with frost-protection monitoring. child-safe, load adjustment, power reserve (approx. 5 days). actual value correction / measured value correction, learning function, valve protection, holiday mode, party mode, VDE-checked, plaggable screw terminals for fast, simple installation, max 3000W switching capacity, 230V~
Application:	Flush-mounted controller for time-dependent single room or floor temperature regulation for electric and warm water heating systems (currentless, closed actuators). The device can be used as a room temperature controller, also as a room temperature controller with floor monitoring or for floor temperature monitoring using an optional remote sensor (remote sensor is not included in delivery).
Cover variants:	50 x 50 mm, 55 x 55 mm, BUSCH-JAEGER Reflex SI/SI Linear (Colours similar to RAL 9010, 1013 oder 9016 / glossy or matt)

Electronic room or floor temperature control with clock and remote sensor

Surface-mounted installation – Design Berlin 3000

Technical data	
Sensors:	external 2K NTC (HF-8/4-K2 belongs to the delivery)
Type:	HTRRBu-110.017 / HTRRBu-110.021 (pictured)
Features:	External NTC remote sensor 4 m (DIN 44574), temperature decrease (adjustable – factory setting 17 °C) triggered by clock or operating mode, direct selection buttons for "ON/OFF", holiday setting, party setting, operating mode and information call up to display all settings, self-learn function, display shows: time and symbols according to setting, backlighting (Typ HTRRBu-110.021) 230V~, 3000W switching capacity
Application:	time-dependent temperature control (e.g. electric heating systems) for floor, fringe zones, bathrooms, celing and tiled stoves, marble and wall heating or tempering systems

Electronic floor temperature regulator with remote sensor

Surface-mounted installation – Design Berlin 2000

Technical Data	
Sensor:	external NTC (HF-8/4-K2 included in delivery)
Type:	several different versions (Pictured HTRRB-011.010)
Equipment:	Mechanical range suppression, "ON/OFF" switch (no frost protection), red "Heating" light, 10 … 60 °C, 10 … 42 °C, 20 … 80 °C, 230 V ~, 3000W switching capacity
Application:	Control of temperatures produced by heating systems, e.g. electrical systems for the heating of floors, fringe zones, bathrooms, ceilings tiled stoves, marble and/or wall heating systems or tempering systems.

Electronic floor temperature regulator with remote sensor

Flush-mounted installation – Design Berlin UP

Technical Data	
Sensor:	external 2K NTC (HF-8 / 4-K2 included in delivery)
Type:	several different versions (Pictured FETR 101.715#21)
Equipment:	Sensor break and short circuit protection (heating is switched off), mechanical range suppression, "ON/OFF" switch, red "Heating" light, green "Decrease" light
Application:	Temperature control (e.g., of electrical heating systems) for floor, fringe zone, bathroom, ceiling, tiled stove, marble and wall heating systems or tempering systems, direct floor heating systems
Cover versions:	50 x 50 mm and 55 x 55 mm (colours similar to RAL 9010, 1013 or 9016 / glossy or matt)

Bimetal climate controllers

Surface-mounted installation – Design Berlin 3000

Technical Data	
Sensor:	Bimetal
Type:	several different versions (Pictured KTBSB-113.500)
Equipment:	Operating voltage 230 V ~, 50 Hz, Setting ranges 5…30 °C, Switching capacity 6 (3) A / 230 V ~, Switching difference ca. 0,5 K, Change-over switch, "ON/OFF" switch, "Heating-Ventilation-Cooling" switch, "3-Stage Fan" switch, "ON" light, "Heating" and "Cooling" light, thermal recirculation, mechanical range suppression
Application:	Control and supervision of temperatures in dry, closed rooms. Remote control of air conditioners and fancoil units and fancoil systems in living spaces, offices and surgery rooms. Specially suited for the optimisation of central air conditioning systems in hotels, hospitals, etc. Suited for all types of heating systems.

Mechanical climate controller with neutral zone

Surface-mounted installation – Berlin 3000

Technical Data	
Sensor:	Bimetal
Type:	KTBSB-112.070
Equipment:	Operating voltage 230 V ~, 50 Hz, setting range 5…30 °C, switching capacity 6 (3) A / 230 V ~, switching differences: heating approx. 1 K / cooling approx. 2 K, neutral zone approx. 2 K, changeover switch, "ON/OFF" switch, "3-Stage Fan" switch, thermal recirculation, mechanical range suppression
Application:	Control and monitoring of temperatures in dry, enclosed spaces. Designed especially for controlling fancoils and partial air conditioning systems in 4-pipe system designs for hotel, home and office spaces.

Electronic air conditioning regulator

Surface-mounted installation – Design Berlin 3000

Technical Data	
Sensor:	Internal NTC / external NTC / external NTC for H/C changeover
Type:	KTRRB-117.128
Equipment:	Operating voltage 230 V~ / 50 Hz, Switching current heating 5 (1) A/ cooling 5 (1) A / fan 3 (1) A, Setting ranges 5…30 °C, Switching difference approx. 1 K, neutral zone: approx. 2 K permanent, "ON/ OFF" switch, "3-Stage Fan" switch, mechanical range suppression, Off (frost protection) / ECO over ext. contact, fan operation in neutral zone "ON/OFF" selectable, switch for heating and cooling (4-pipe) / heating or cooling (2-pipe), switch for external / internal sensor
Application:	Control of climates in individual rooms. Device with neutral zone for the control of 2- or 4-pipe air conditioning systems.

Universal electronic climate controller with timer

Flush-mounted installation – Design Berlin UP

Technical Data	
Sensor:	internal NTC, external NTC, dew point sensor
Type:	several different versions (pictured: KTRRUu-217.456#21)
Equipment:	Operating and switching voltage: 230 V~ / 50 Hz, switching capacity: 2 relays, each with 3 (0.5) A, analogue output 0-10 V / max. 5 mA for fan control, setting ranges: 5…30 °C heating / 18…40 °C cooling, switching difference: < 1 K, external "ECO" contact, external "OFF" contact, external "Heating / Cooling Changeover" contact
Application:	Timer function for heating / cooling control in 2 and 4-pipe systems used in hotel, home and office spaces. Suitable for normally closed and normally open valve actuators. Unit can be used as climate controller, heating controller or cooling controller with and without fan. Matches almost all current switch ranges. Can be used as master for other controllers for switching to ECO mode.
Cover versions:	50 x 50 mm, 55 x 55 mm , BUSCH-JAEGER Reflex SI/SI Linear (colours similar to RAL 9010, 1013 or 9016 / glossy or matt)

Electronic climate controller "silent"

Surface-mounted super flat – Design Berlin 1000

Technical data	
Sensors:	NTC internal
Type:	KTRTB-251.108 – 24 V ~ / KTRTB-211.108 – 230 V ~
Features:	Operating voltage 230 V ~ or 24 V ~ / 50 Hz, switching capacity 15 W (max. 5 actuators currentless closed), adjustment range 5 ... 30 °C, switching difference < 1 K, decrease approx. 3 K, lamps „Heating / cooling", external contact "Komfort / ECO", external contact for H/C changeover mechanical range restriction
Application:	Individual room temperature controller for 2-pipe air conditioners with Triac as switching element (silent switching)

13.9 mm

Electronic climate controller for fancoils with EC motors

Surface-mounted installation – Design Berlin 3000

Technical data	
Sensors:	NTC internal, NTC external, NTC external for H/C switching
Type:	KTRRB-117.169
Features:	Operating and switching voltage 230 V~, 50 Hz, adjusting range 5...30°C, switching capacity heating/cooling: 5(1) A / 230 V~, 3-stage output 0-10 V (max. 5mA) with adaption of individual ventilation speed or dynamic 0-10V, ventilator mode in neutral zone "ON/OFF" can be selected, switching difference approx.0.5K, neutral zone approx. 2 K, switching close contact, switch "OFF/ventilator manual/ ventilator automatic", switch 3-stage "Ventilator 0-10V" sensor touch surface "parameter setting 3-stage ventilator outlet", mechanical range restriction
Application:	Individual temperature controller with remote sensor can also be connected, activation of EC blower convector, EC fancoil devices and other EC ventilator-assisted air conditioning systems in 2 or 4-pipe systems

Electronic climate controller for cooling ceilings, with remote sensor

Surface-mounted installation – Berlin 2000

Technical Data	
Sensor:	internal NTC, external dew point sensor, external temperature or radiative temperature sensor
Type:	KTRRB-052.244 / KTRRB-052.245 (Picture)
Equipment:	Operating and switching voltage: 24 V~, 50 Hz / 24 V=, switching capacity: 1 A, setting range 21 °C ± 8 K (threshold arrow red / blue), switching differences: heating < 1 K / cooling < 2 K, neutral zone: approx. 2 K permanent, ECO zone: ± 3 K fixed, "Heating / Cooling" light, "Condensation" light, "Frost Protection" light, mechanical range suppression, "OFF (forced switch off) / Day / ECO" switch, frost protection is guaranteed when OFF
Application:	Heating and cooling control of 2 and 4-pipe systems in hotel, home and office spaces, interruption of cooling operation in the event that the optional external dew point sensor detects condensation

Flush-mounted installation – Design Berlin UP

Technical Data	
Sensor:	Internal NTC, external dew point sensor, external temperature or radiative temperature sensor
Type:	several different versions (pictured: KTRRU-052.245#21)
Equipment:	Operating and switching voltage: 24 V~, 50 Hz / 24 V=, switching capacity: 1 A, setting range: 21 °C ± 8 K (red / blue threshold arrow), switching differences: heating: < 1 K / cooling < 2 K, neutral zone: approx. 2 K permanent, ECO zone: ± 3 K fixed, 4-colour LED for "Heating", "Cooling", "Condensation" and "Frost protection", mechanical range suppression, "OFF (forced switch off) / Day / ECO" switch, frost protection is guaranteed when OFF
Application:	For the control of the heating and cooling operations executed by 2- and 4-pipe systems in hotel and living rooms and business premises, cooling interrupted when condensation forms on the optional external dew point sensor.

Electronic climate controller, continuous action

Surface-mounted installation – Berlin 2000

Technical Data	
Sensor:	Internal NTC, external dew point sensor, external temperature or radiative temperature sensor
Type:	several different versions (pictured: KTRVB-052.245)
Equipment:	Operating voltage: 24 V ~, 50 Hz / 24 V =, 1 or 2 analogue outputs 0 … 10 V or 10 … 0 V / max. 5 mA, control range: 21 °C ± 8 K or 5 … 30 °C, ECO zone: 3 K permanent, "Heating / Cooling" light, "Condensation" light, "Frost Protection" light, ext. "Comfort / ECO" contact, ext. contact for H / C changeover, mechanical range suppression, "OFF (forced switch off) / Day / ECO" switch, frost protection is guaranteed when OFF
Application:	Heating and cooling control of 2 and 4-pipe systems and mixing chambers in hotel, home and office spaces, for continuous control of valve actuators

Mechanical room hygrostat

Surface-mounted installation – Design Berlin 3000

Technical Data	
Sensor:	Bi-Metal / synthetic fibres
Type:	RKDSB-171.000
Equipment:	Operating voltage / switching voltage 24 … 230 V ~, switching capacity (at 230 V ~ for dry spaces only): dehumidifying 5 (0.2) A / humidifying 3 (0.2) A / heating 10 (4) A – 1 (1) A at 24 V ~ / cooling 5 (2) A – 1 (1) A at 24 V ~, switching differences approx. 4 % RH / approx. 1 K, setting ranges: hygrostat 30 … 100 % RH / thermostat 10 … 35 °C, "ON / OFF" switch for thermostat and hygrostat, mechanical range suppression
Application:	Supervision and ontrol of the relative humidity of the temperature combined in one device.

Mechanical room hygrostat

Surface-mounted installation – Design Berlin 2000

Technical Data	
Sensor:	synthetic fibres
Type:	RFHSB-060.010 (Picture) / RFHSB-060.011
Equipment:	Switching capacity (at 230 V ~ only for dry spaces and 24 V ~): dehumidifying 5 (0.2) A / humidifying 3 (0.2) A, switching difference approx. 4 % RH, setting range 30 … 100 % RH, mechanical range suppression, external setting, internal setting (RFHSB-060.011)
Application:	The room hygrostat serve for the supervision and control of the relative humidity e.g. in business premises, domiciles, habitations, conservatories, bathing rooms, swimmingpools, EDP rooms

Mechanical room hygrostat

Flush-mounted installation – Design Berlin UP

Technical Data	
Sensor:	synthetic fibres
Type:	FHY 101.060#21
Equipment:	Switching capacity (at 230 V ~ only for dry spaces and 24 V ~): dehumidifying 5 (0.2) A / humidifying 2 (0.2) A, switching difference approx. 5 % RH, setting range 35 … 85 % RH, mechanical range suppression
Application:	The room hygrostat serves for the supervision and control of the relative humidity e.g. in business premises, domiciles, habitations, conservatories, bathing rooms, swimming pools, EDP rooms. Matches almost all switch ranges
Cover versions:	50 x 50 mm and 55 x 55 mm (colours similar to RAL 9010, 1013 or 9016 / glossy or matt)

Electronic dew point monitors

DIN rail mounting

Technical Data	
Sensor:	external dewpoint sensor, up to 5 can be connected
Type:	WFRRN-210.018 – 230V AC / NEHR 24.401 – 24 V AC / DC (Picture)
Equipment:	switching point fixed approx. 98 % rH, isolated changeover contact, displays (LED) red, "dewpoint trigger" 230 V ~ / 24 V ~
Application:	To interrupt cooling operations in case the relative humidity exceeds 98 %.

Dew point sensor TPS

For cooling ceilings and piped cold-water systems

Technical Data	
Type:	TPS 1 (Picture) / TPS 2 / TPS 3
Equipment:	10 m cable length, clips for cooling mats, cable ties
Application:	TPS 1: drywall (plasterboard) cooling ceiling with capillary tube mat, metal cooling ceiling with integrated capillary tube system; TPS 2: cold-water pipes, plaster cooling ceiling with capillary tube system, TPS 3: cold-water pipes

Terminal block for heating circuit manifolds

Technical data	
Installation:	Screw fastening with 4 supplied screws or optionally using pratical magnetic fastening kit JZ-24
Type:	different possible variants (pictured VOOPL-318.000)
Features:	Terminal block in housing for wiring up to 8 room thermostats and a up to 32 actuators, a maximum of 4 actuators are possible per channel, optional: pump module can be attached, IP 20 (VOOPL) / IP 65 (VOOPD), fast, clearly arranged and comfortable installation thanks to screwless spring clips, labeling field, 230V~ (without pump module also for 24V~)
Application:	Terminal block for heating system controller (with or without ECO function), also for heating/cooling controller with integrated heating/cooling switch to use valve actuators "normally closed"

Terminal block for heating circuit manifolds

with central heating /cooling switching

Technical data	
Installation:	Screw fastening with 4 supplied screws or optionally using pratical magnetic fastening kit JZ-24
Type:	different possible variants (pictured VOOPL-318.000)
Features:	Terminal block in housing to wire up to 8 room thermostats and a maximum of 16 actuators, up to 2 actuators possible per channel, external contact for central heating/cooling switching, external contact "ECO", zone forming, additinoal versions with pump logic, fast, clearly arranged and comfortable installation thanks to screwless spring clips, labeling fields, 230 V ~
Application:	Terminal block for 230 V ~ individual room temperature control with switching contact, to use valve actuators "normally closed" or "normally open" suitable

Electrothermic valve actuators

for heating, ventialtion and air-conditioning technology

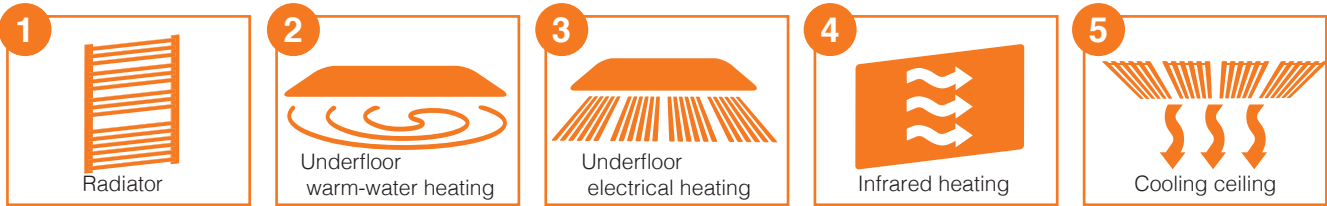| Technical data	
Function type:	normally closed
Type:	ZBOOA-010.100 - 230 V ~ / ZBOOA-040.100 - 24 V = oder 24 V ~
Features:	Operating voltage 230 V ~ ; 24 V = or 24 V ~ / 50 Hz, continuous output aprox. 3 W, max. starting current 0.3 A (230V), 0.5 A (24V), setting display 2x (top and at side), opening /closing time approx. 4 minutes, nominal closing force 90 N, nominal travel 3mm, fastening M30 x 1.5
Application:	Valve actuator to control thermostat valves, also fits the following valve and distributor makes: Beulco, Empur, Heimeier, Kamo, Purmo, SBK, SKV, Strawa, Taconova and Watts

Smart controlling with b@home
Intelligent remote control operation for heating and cooling systems

b@home - the clever way to control heating and cooling systems from anywhere and at any time through the new alre b@home Gate. alre wireless systems, both existing and yet to be set up, can be controlled via the internet or home network: simply using a free app (iOS/Android) or via standard PC/notebook browser. The intuitive, simple operation can access rooms individually or centrally, and can optimise energy consumption.

After a one-off registration on the b@home portal, the user can access the wireless system from anywhere via a https connection. This is also possible without an internet connection via WLAN/LAN. The b@home Gate is the interface between the alre wireless system and the WLAN/LAN router.

The wireless room temperature sensor FTRCUd-210.021 is the central access point to the settings of all channels or hot/cold zones. It can also be used as a room temperature sensor with clock and actuator, and works with all conventional switches.

1	2	3	4	5
Radiator	Underfloor warm-water heating	Underfloor electrical heating	Infrared heating	Cooling ceiling

An overview of all options and advantages

- Secure control, monitoring and programming of the hot/cold system from any location
- Up to 32 rooms or hot/cold zones
- Fast and easy commissioning
- Intuitive operation
- Individual room control
- Suitable for all types of heating
- A variety of mobile terminal equipment usable
- An internet connection is not required for the control function
- Upgradeable in existing alre wireless systems
- Free apps, no follow-up costs such as monthly subscription fees

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