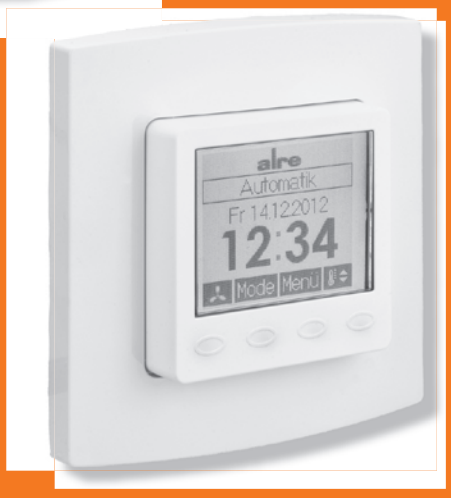
Climate controllers
meet the most demanding room climate requirements.

Climate controllers



Intelligent solutions *for all living spaces*

alre – Innovation combined with skill and tradition

alre – Sophisticated design

Bimetal climate controllers

Surface-mounted installation – Design Berlin 3000

Technical data	
Sensor:	Bi-Metall
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 / OFF” 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:	Bi-Metall
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.

Mechanical room hygrothermostat

Surface-mounted installation – Design Berlin 3000

Technical data	
Sensor:	Bi-Metall / 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

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)

Mechanical control cabinet hygrostat

DIN rail (35 mm)

Technical data	
Sensor:	Plastic fibres
Type:	RFHSS-112.110/02
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 40 ... 90 % RH
Application:	Hygrostat for monitoring and controlling humidity in control cabinets and machines

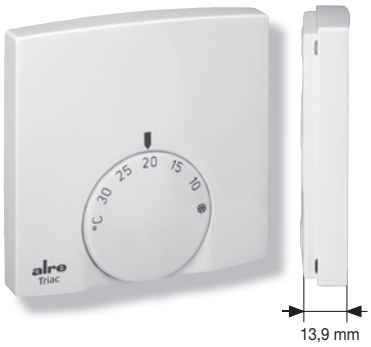
alre – Innovative technology

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, switch with frost protection function when external contact is off / ECO, fan switch in neutral zone on / off, 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.

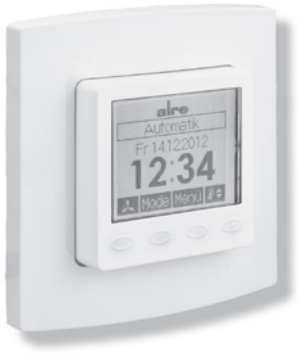
“Superflat” surface-mounted installation – Design Berlin 1000



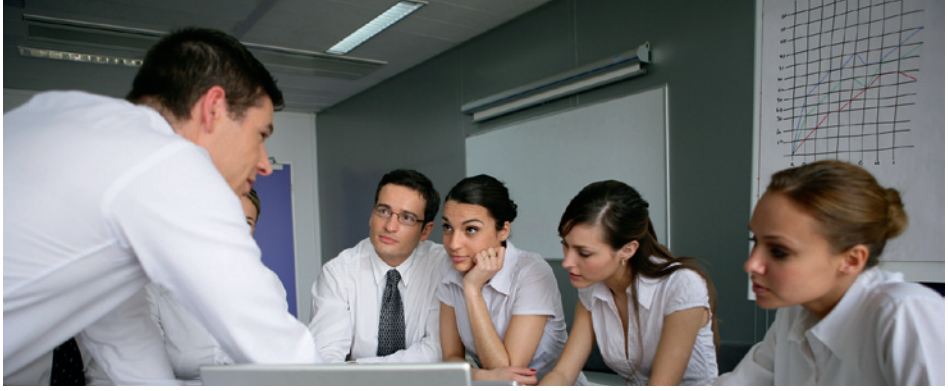
Technical data	
Sensor:	NTC internal
Type:	KTRTB-251.108 – 24 V ~ / KTRTB-211.108 – 230 V ~
Equipment:	Operating voltage 230 V ~ or 24 V ~ / 50 Hz, Switching capacity 15 W (max. 5 actuators normally closed), Setting ranges 5 ... 30 °C, Switching difference < 1 K, temperature decrease approx. 3 K, “Heating / Cooling” light, ext. “Comfort / ECO” contact, ext. contact for H / C changeover, mechanical range suppression
Application:	Single-room temperature regulator for 2-pipe air-conditioning systems with Triac switching element (noiseless switching)

Universal electronic climate controller with timer

Flush-mounted installation – Design Berlin UP

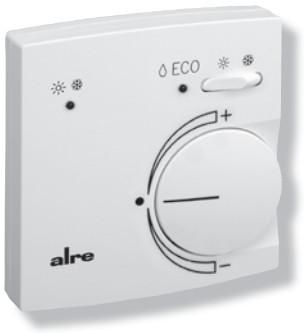


Technical data	
Sensor:	internal NTC, external NTC, dew point sensor
Type:	**several different versions** (pictured: KTRRUu-217.456#21)
Equipment:	Operating and switching voltage: 230 V ~ / 50 Hz, switching capacity: 2 relays, each with 3 (0.5) A, analogue output 0-10 V / max. 5 mA for fan control, setting 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 all current switch ranges. Can be used as master for other controllers for switching to ECO mode.
Cover versions:	50 x 50 mm and 55 x 55 mm (colours similar to RAL 9010, 1013 or 9016 / glossy or matt)



Electronic climate controller for cooling ceilings

Surface-mounted installation – Design Berlin 2000



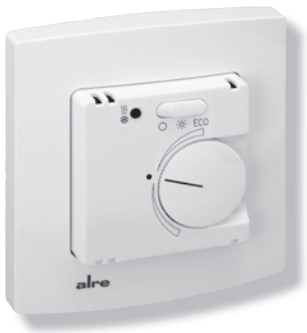
Technical data	
Sensor:	Internal NTC, external NTC for heating / cooling changeover, dew point sensor
Type:	several different versions (Pictured KTRRB-040.213)
Equipment:	Operating voltage 24 V ~ / =, Switching current 1 A, Setting ranges 5 ... 30 °C / 21 °C ± 8 K (threshold arrow), Switching difference approx. 1 K, mechanical range suppression, 2-colour LED on left: red for heating or green for cooling, 2-colour LED on right: red for dew point or green for on, external contact for activating ECO function, “OFF (forced switch off) / Day / ECO” switch, “Heating/Cooling” switch
Application:	Single-room temperature controller with relay output for activating valves for 4-pipe system climate control, with adjustable neutral zone and interruption of cooling operation in the event that the optional external dew point sensor detects condensation

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

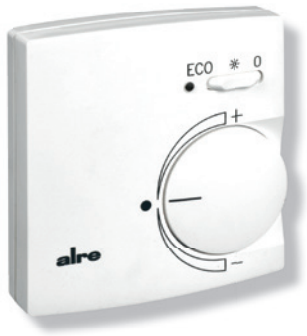


Technical data	
Sensor:	Internal NTC, external dew point sensor, external temperature or radiative temperature sensor
Type:	**several different versions** (pictured: KTRRU-052.245#21)
Equipment:	Operating and switching voltage: 24 V ~, 50 Hz / 24 V =, switching capacity: 1 A, setting range: 21 °C ± 8 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.

alre – Intelligent solutions for air conditioning systems

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

Terminal strip for heating circuit distributors with heating/cooling change-over function

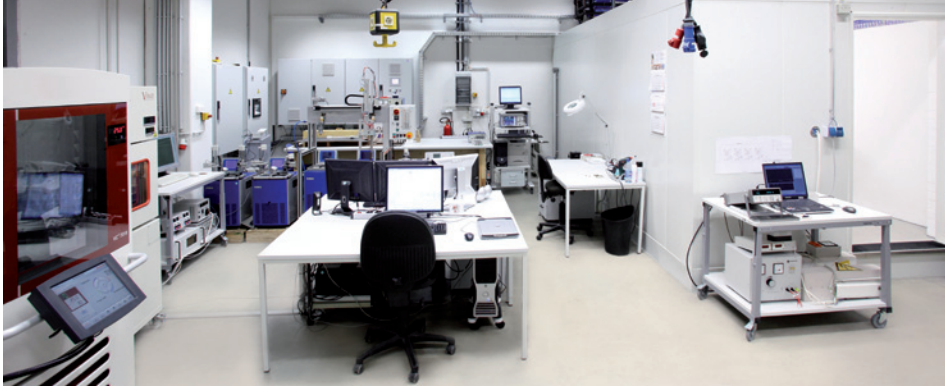
for 5 or 8 room thermostats

Technical data	
Type:	several different versions (Pictured VOORL-318.008)
Equipment:	Operating voltage 230 V~ / 50 Hz, terminal strip in housing for wiring up to 8 room thermostats and up to 32 actuators, up to 4 actuators per channel, external contact for central heating / cooling changeover, external “ECO” contact, zone creation, additional versions with pumping logic, installation using 4 supplied screws or optionally with the practical JZ-24 magnetic installation kit
Application:	Wiring strip for 230 V~ single-room temperature regulator with changeover contact, for use with “normally-closed” or “normally open” valve actuators

Electrothermal valve actuators

for heating, ventilation and air-conditioning systems

Technical data	
Function type:	normally closed
Type:	ZBOOA-010.100 – 230 V~ / ZBOOA-040.100 – 24 V= or 24 V~
Equipment:	Operating voltage 230 V~ ; 24 V= or 24 V~ / 50 Hz, continuous output: approx. 3 W, max. starting current: 0.3 A (230 V), 0.5 A (24 V), position indicators: 2 provided (top and side), opening / closing time: approx. 4 min, nominal closing force: 90 N, nominal lift: 3 mm, installation screws: M30 x 1.5



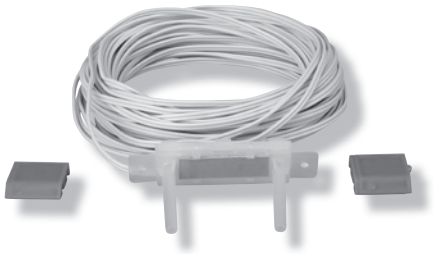
Electronic dew point monitors

DIN rail mounting

Technical data	
Operating voltage:	230V ~ ; 24V ~ / 50 Hz
Sensor:	external dew point sensor, up to 5 can be connected
Fixed switching point:	approx. 98 % r. H.
Switching output:	potential-free changeover contact
Switching capacity:	10 (3) A / bis 230 V ~ 10 A / bis 30 V ~ 1 A / bis 60 V ~ 10 (3) A / max. 48 V ~ / 60 V ~
Min.-Switching current:	5 mA
Indicators (LEDs):	red (= dew point tripping)
Type:	WFRRN-210.018 – 230V AC / NEHR 24.401 – 24 V AC / DC (Picture)
Application:	For the interruption of the cooling operations in cases where the relative humidity transcends a level of 98 %.

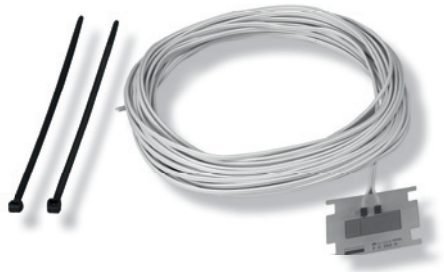
Dew point sensor TPS

For cooling ceilings and piped cold-water systems



Technical data	
Areas of 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
Equipment:	10 m cable length, clips for cooling mats, cable ties
Type:	TPS 1 (Picture) / TPS 2

For piped cold-water systems



Technical data	
Potential applications:	Piped cold-water systems
Equipment:	10 m cable, cable connectors
Type:	TPS 3

Information on technical data

The technical data we have cited is tested under laboratory conditions and in accordance with generally applicable test standards, in particular DIN standards. Individual properties are only assured to this extent. Testing of suitability for applications planned by the client, for example use under certain conditions, is at the client's discretion. We do not accept any liability for this.

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GB/03-2013/500