BUILDING AUTOMATION
CONTROL TECHNOLOGY
SENSOR TECHNOLOGY

alre

KTRBUu.

The BACnet Building Automation System.

ALRE BUILDING AUTOMATION. ALWAYS **PERFECT INDOOR CLIMATE.**

With our BACnet room controller – the only BACnet flush-mounted controller on the market – you control, regulate, monitor and optimise all central building functions such as heating, cooling or ventilation. The comfort in the building increases, the energy and operating costs decrease. According to predefined scenarios, all sensors, actuators, operating elements and other technical components in the building are networked with each other. This ensures that all components work together intelligently.

alre building automation: BACnet controller for efficient building management systems.

APPLICATION **EXAMPLES:**

+ Hot water underfloor heating
+ Electric floor heating
+ Ceiling cassettes
+ Underfloor convectors
+ Heating and cooling ceilings
+ Duct devices

OVERVIEW

SYSTEM INFORMATION

INDIVIDUAL COMPONENTS

BACNET ROOM CONTROLLER, FLUSH-MOUNTED KTRBUU217.456#21

BACNET ROOM CONTROLLER, FLUSH-MOUNTED KTRBUU217.456#07

BACNET ROOM CONTROLLER, FLUSH-MOUNTED KTRBUU217.456#56

BACNET ROOM CONTROLLER, FLUSH-MOUNTED KTRBUU217.456#28

MANAGING THE FUTURE **SAFELY – SUSTAINABLY AND EFFICIENTLY**

Industry 4.0, cloud computing, blockchain, smart living – digitalisation is THE topic of today. Building automation is also developing at a rapid pace. The latest technologies, networked systems and constantly increasing requirements call for intelligent, flexible and convenient solutions.

In addition to convenience and high levels of functionality, smart systems also have a positive impact on operating costs. Modern building automation increases the value of properties and is therefore becoming increasingly important for rentals and sales.

With our new BACnet climate controller, we have developed an innovative device especially for the requirements of individual room control in building automation.

COMMUNICATION VIA **BACNET MS / TP**

In order to use the networked functions, all building automation systems must be interconnected and open. Communication takes place via an open interface such as BACnet, for example.

The BACnet room controller (KTRBUu 217.456) communicates via BACnet according to DIN EN ISO 16484-5 with the BACnet MS / TP network protocol. This makes it compatible with all common building automation systems. It corresponds to the BACnet profile 'B-AAC' (BACnet Advanced Application Controller) and is therefore much more than a simple setpoint generator.

In contrast to other fieldbus interfaces such as LON or KNX, the BACnet interface does not require an additional gateway for implementation and communication with the management level. This saves costs because service technicians with different qualifications are not required to commission the system. A further cost saving compared to distributed solutions is achieved by combining the room control unit and individual room controller in one device.

The BACnet individual room controller is therefore extremely versatile – in residential, office and business premises, in hotels, schools, hospitals and more.

The BACnet room controller has been awarded the BTL certificate for compliance with the BACnet standard ISO 16484-5, which has been proven by means of a BTL compliance test.

YOUR **ADVANTAGES** FOR ALL FIELDS OF APPLICATION:

+ Individual room controller with controller function (B-AAC)
+ Flush-mounted - integration in all common switch ranges (50 mm / 55 mm / 60 mm)
+ Selectable application for various user applications
+ Cost benefit for investment and commissioning
+ No additional gateways required (BACnet MS / TP)
+ Reduction of installation and operating costs


RESIDENTIAL


HOTEL


OFFICE


SCHOOLS


HOSPITAL


INDUSTRY

BACNET INDIVIDUAL ROOM CONTROLLER **CONNECTION OPTIONS**

The BACnet room controller with graphic display is suitable for time-dependent heating and cooling operation in 2 or 4-pipe systems.

The device has two inputs and three outputs. Two of the outputs switch relays, each of which can address up to 5 actuators. The third output is analogue (0-10 V) and can be used, for example, for EC fan control.

One of the two inputs is used for BACnet communication.
The other can be configured to connect sensors, for example for temperature or dew point. Windows or presence contacts can be connected via BACnet.

TECHNICAL **HIGHLIGHTS** AND FEATURES

+ Internal temperature sensor
+ Connectible external dew point sensor
+ Connectible external dew point sensor
+ MS/TP interface
+ 0-10 V EC fan coil
+ I/O mix integrated in device
+ 6-way valve

* depending on existing application

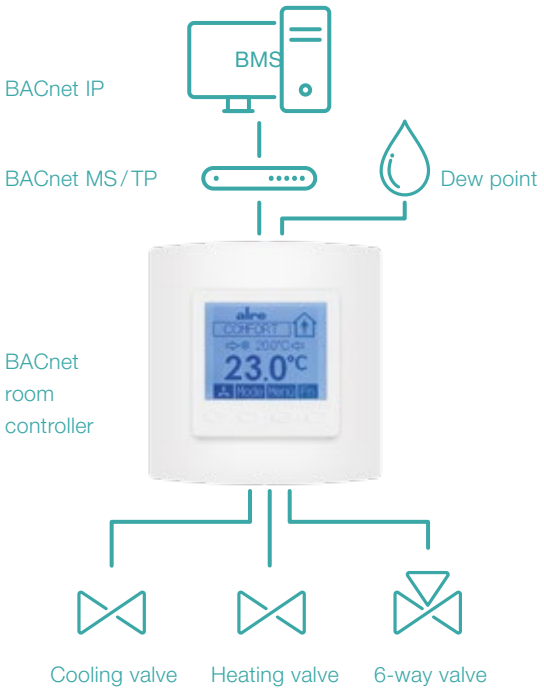

BMS
BACnet MS/TP
Presence detector*
or
Window contact*
Temperature
or
Dew point
Room 1
Room 03, Room 04, ...
Room 2
alre
COMFORT
20.0°C
23.0°C
Mode
Menü
Fn
Heating valve
Cooling valve
EC 0 to 10 V
or
6-way valve

BACNET INDIVIDUAL ROOM CONTROLLER / **HEATING AND COOLING CEILING APPLICATION EXAMPLE**

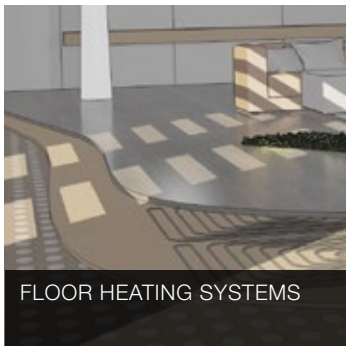
Planners prefer heating and cooling ceilings for comfortable air conditioning in buildings because it prevents draughts or disturbing noises. With its pre-configured system diagrams, the alre BACnet individual room controller (KTRBUu 217.456) supports the most common air conditioning applications.

The ‘cooling and heating ceiling in 4-pipe systems’ variant controls heating and cooling valves, monitors the dew point and interrupts cooling operation if condensation begins to form.

The control range of the BACnet individual room controller is determined by the building management system. If this fails, the controller also functions independently and maintains control operation in the room.

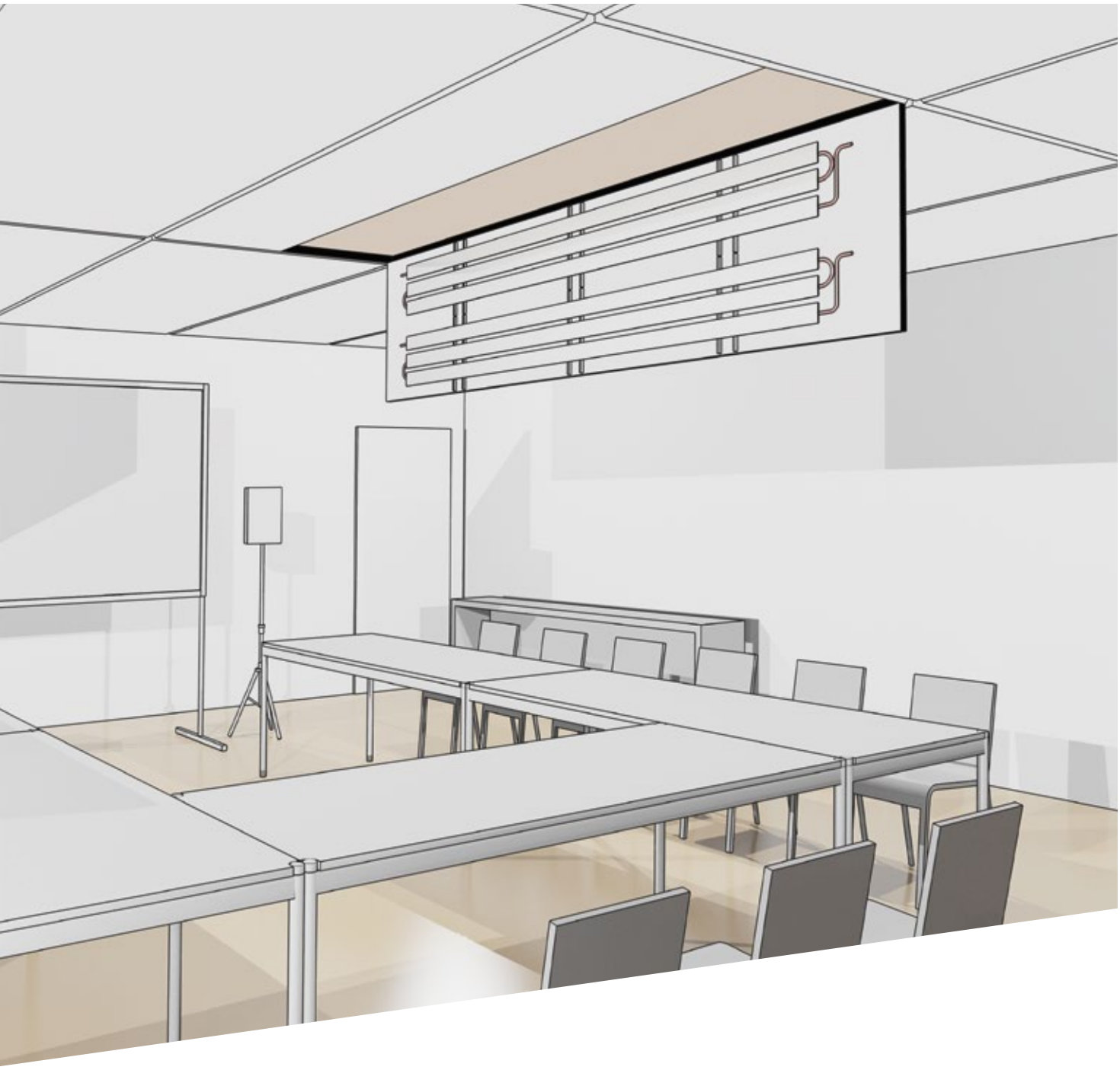


WIDE RANGE OF APPLICATIONS

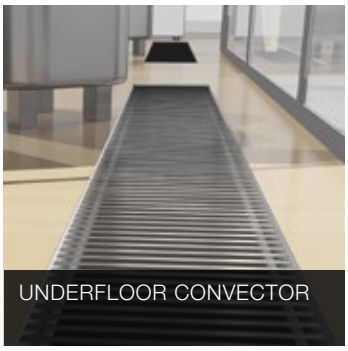

FLOOR HEATING SYSTEMS


DUCT DEVICES


UNDERFLOOR CONVECTOR AND UNDERFLOOR HEATING



CEILING CASSETTES



UNDERFLOOR CONVECTOR

UNDERFLOOR HEATING AND CEILING CASSETTES

SUITABLE FOR ALL **CONVENTIONAL SWITCH RANGES**

The alre BACnet individual room controller is mounted in a flush-mounted socket. The housing fits exactly into design frames of sizes 50x50 mm, 55x55 mm and 60x60 mm from surface switch ranges of well-known manufacturers such as Berker, Busch-Jaeger, Gira, Jung, Merten, Peha, Hager or Feller (CH).

Check out the product video now!

KTRBUu 217.456 in
BERKER S.1

KTRBUu 217.456 in
BUSCH-JAEGER balance SI

KTRBUu 217.456 in
GIRA Standard 55

KTRBUu 217.456 in
JUNG AS 500

KTRBUu 217.456 in
MERTEN 1-M

INTEGRATION EXAMPLES

of the BACnet individual room controller in switch ranges from various manufacturers.

All variants also fit in multiple frames from all well-known manufacturers. Also available in special colours anthracite and aluminium on request.

BACNET ROOM CONTROLLER APPLICATION **OVERVIEW**

2 = 2-pipe system
4 = 4-pipe system
RA = Radiator
FB = Floor temperature control
KD = Ceiling temperature control
UK = Underfloor convector
HR = Heating coil
KR = Cooling coil

TYPE	APPLICATION	SYSTEMS								EXT. SENSORS					ACTUATORS					
		2-pipe system	4-pipe system	Radiator	Floor temperature control	Ceiling temperature control	Underfloor convector	Heating coil	Cooling coil	TP Dew point sensor	TB Temperature limiter	Supply air temperature	Room air temperature	Floor screed temperature	Fan 0 to 10 V	VAV 0 to 10 V	Heating valve	Cooling valve	Heating/cooling valve	6-way ball valve 0 to 10 V
2-pipe system underfloor heating with screed temperature sensor	2FB001	•			•									•			•			
2-pipe system underfloor heating with limiter	2FB002	•			•						•						•			
2-pipe system coolingcheating ceiling with dew point monitor	2KD001	•				•				•									•	
2-pipe system heating/cooling coil with fan and supply air temperature	2HRKR001	•						•	•			•			•				•	
2-pipe system with radiator with external room temperature sensor	2RA001	•		•									•				•			
4-pipe system radiator (heating), cooling ceiling with dew point monitor	4RAKD001		•	•		•				•							•	•		
4-pipe system radiator, cooling coil with fan and supply air temperature limitation*	4RAKR001		•	•					•		•				•		•	•		
2-pipe system underfloor convector with room temperature sensor and fan	2UK001	•					•						•		•				•	
4-pipe system floor temperature control with temperature limiter	4FB001		•		•						•						•	•		
4-pipe system cooling/heating ceiling with dew point monitor and 6-way ball valve	4KD001		•			•				•										•
4-pipe system cooling/heating ceiling with dew point monitor and VAV	4KD002		•			•				•						•	•	•		
4-pipe system cooling/heating ceiling with dew point monitor	4KD003		•			•				•							•	•		
4-pipe system heating and cooling coil with fan and supply air temperature	4HRKR001		•					•	•			•			•		•	•		
4-pipe system underfloor convector with dew point monitor and fan	4UK001		•				•			•					•		•	•		

BACNET ROOM CONTROLLER KTRBUU

FLUSH-MOUNTED INSTALLATION – DESIGN BERLIN UP

TECHNICAL DATA

Design:	Berlin UP
Housing material:	PC, PMMA, ABS plastic
Operating voltage:	230 V AC, 50 Hz
Ambient temperature:	0 … 40 °C
Storage temperature:	–20 … +70 °C
Permissible atmospheric humidity:	max. 95% rel. humidity, non-condensing
Electrical connection:	pluggable screw terminals Mains voltage side 0.75 – 2.5 mm²
	Low voltage side 0.08 – 1.5 mm²
Mounting/attachment:	In flush-mounted socket – can be adapted to fit virtually any switch range (deep flush-mounted socket recommended) see adaptation list on page 20
Protection rating:	IP30
Protection class:	II
Safety and EMC:	according to DIN EN 60730
Max. switching voltage:	230 V AC, 50 Hz
Min. switching voltage:	230 V AC, 50 Hz
Switching power:	690 W
Max. power consumption:	approx. 1 W (2.2 VA)
Max. switching current:	per 3 (0.5) A (max. 5 valve actuators per output)
Switching element:	2 relays
Switching contact:	2 NO contacts
Output signal:	Switching heating, cooling, heating / cooling, analogue 0 to 10 V (5 mA) to control a speed-controlled fan
Sensor:	Internal NTC, optional external ‘Sensor 2’ * (NTC 47k), dew point sensor
Control range:	5 … 40 °C
Setting range:	standard setting range for heating (5 … 30 °C), second setting range for cooling (18 … 40 °C)
Hysteresis:	< 1 K
Display type:	illuminated graphical display
Pipe system compatibility:	2-pipe and 4-pipe

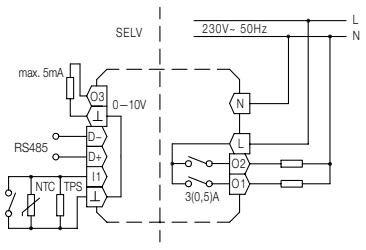
APPLICATION

The BACnet individual room controller with graphic display was specially developed for time-dependent heating and cooling operation in 2- or 4-pipe systems. The controller can be used in a wide range of applications, such as hotels, residential, office and business premises as well as hospitals and schools.

The communication takes place via BACnet according to DIN EN ISO 16484-5 with the BACnet MS / TP network protocol. The room controller is therefore compatible with all common building automation systems. The controller corresponds to the BACnet profile ‘B-AAC’ (BACnet Advanced Application Controller).

The predefined applications cover a wide range of applications for room temperature control in room automation.

Special colours as well as the colours anthracite and aluminium are available for projects upon request.

TYPE / IMAGE	ITEM NO.	FEATURES	CIRCUIT DIAGRAM	EURO / PG
KTRBUu217.456#21	UA230000	**Surface finish:** Glossy **Housing colour:** pure white, similar to RAL 9010 **Scope of delivery:** controller, cover 50x50 mm, pure white (like RAL 9010), glossy, alre frame ‘Berlin’		

* Depending on the selected system scheme, a menu setting can be used to select whether control should be based on the internal or external sensor. In the intermediate positions, if both sensors are used, a weighting is applied to the internal room sensor and the external temperature sensor. The weighting allows for compensation of different structural conditions such as large window areas or cardinal directions. For very slow controlled systems, it is recommended to assign a higher weighting to the temperature sensor than to the internal room sensor.

BACNET ROOM CONTROLLER KTRBUU

FLUSH-MOUNTED INSTALLATION – DESIGN BERLIN UP

TYPE/IMAGE	ITEM NO.	FEATURES	CIRCUIT DIAGRAM	EURO/PG
KTRBUu217.456#07 	UA230002	Like KTRBUu217.456#21 but scope of delivery as follows: Controller, **50x50** mm cover **pure white** (similar to RAL 9010), **glossy,** without frame		
KTRBUu217.456#09 	UA230003	like KTRRUu217.456#21 but with delivery scope: controller, 50x50 mm cover **pearl white** (like RAL 1013), **glossy,** without frame		
KTRBUu217.456#27 	UA230004	Like KTRBUu217.456#21 but scope of delivery as follows: Controller, **50x50** mm cover **traffic/ studio white** (like RAL 9016), **glossy,** without frame		
KTRBUu217.456#28 	UA230007	Like KTRBUu217.456 but scope of delivery as follows: controller, cover **suitable for BUSCH-JAEGER Reflex SI/SI Linear pure white** (like RAL 9010), **glossy,** without frame		
KTRBUu217.456#55 	UA230005	Like KTRBUu217.456#21 but scope of delivery as follows: controller, **55x55** mm cover **pure white** (like RAL 9010), **glossy,** without frame		
KTRBUu217.456#56 	UA230009	Like KTRBUu217.456#21 but scope of delivery as follows: Controller, cover **55x55** mm **pure white** (similar to RAL 9010), **matt** without frame		
KTRBUu217.456#57 	UA230006	Like KTRBUu217.456#21 but scope of delivery as follows: controller, **55x55** mm cover **pearl white** (like RAL 1013), **glossy,** without frame		
KTRBUu217.456#59 	UA230008	Like KTRBUu217.456#21 but scope of delivery as follows: controller, **55x55** mm cover **traffic/ studio white** (like RAL 9016), **glossy,** without frame		

BACNET ROOM CONTROLLER KTRBUU
FLUSH-MOUNTED INSTALLATION – DESIGN BERLIN UP

ACCESSORIES	ITEM NO.	FEATURES	EURO/PG
JZ-090.900 	VV000025	**Design:**Berlin **Surface finish:** glossy **Housing colour:** pure white, like RAL 9010 **Housing material:** PC plastic **General features:** alre frame 'Berlin' (neutral) for all flush-mounted controllers with cover 50x50 mm	
JZ-090.100 	VV000048	**Features:** like JZ-090.900, but for all flush-mounted controllers with 55x55 mm cover	
JZ-090.910 	VV000010	**Design:** Berlin **Surface finish:** glossy **Housing colour:** pearl white, like RAL 1013 **Housing material:** PC plastic **General features:** alre frame 'Berlin' (neutral) for all flush-mounted controllers with cover 50x50 mm	
TPS 1 	G8000299	Dew point sensor to detect and report the dew point (see also chapter air conditioning technology) **Mounting / attachment:** using clips on cooling ceiling capillary pipe **Use:** drywall cooling ceiling (plasterboard) with hung up capillary tube mat, metal cooling ceiling with integrated capillary pipe system **Sensor wire extendible up to:** 50 m with 2x0.5 mm^2 **Scope of delivery:** sensor, 2 clips for cooling pad	
TPS 2 	G8000300	Dew point sensor to detect and report the dew point (see also chapter air conditioning technology) **Mounting / attachment:** using clips on cooling ceiling capillary pipe or cable ties on the pipe **Use:** Pipe systems transporting cold water, plaster cooling ceiling with capillary tube system **Sensor wire extendible up to:** 50 m with 2x0.5 mm^2 **Scope of delivery:** Sensor, 2 clips for cooling pad, 2 cable ties	
TPS 3 	SN120000	Dew point sensor to detect and report the dew point (see also chapter air conditioning technology) **Mounting / attachment:** attach to pipe by means of cable ties **Use:** piped cold-water systems **Sensor wire extendible up to:** 50 m with 2x0.5 mm^2 **Scope of delivery:** Sensor, 2 cable ties	
BTF2-C47-0000 	SA140014	Surface-mounted 'ultra-thin' room temperature sensor for temperature measurement in residential and business premises (see also chapter air conditioning technology) **Mounting / attachment:** surface/wall mounting (4-hole assembly on flush-mounted socket) **Housing colour:** pure white, like RAL 9010, glossy **Housing material:** ABS plastic **Ambient temperature:** –10 to +50 °C **Admissible humidity:** max. 95% rel. humidity, non-condensing **Protection rating:** IP30 **Protection class:** III **Electrical connection:** screw-type terminals 0.33 mm^2 to 1.5 mm^2	
FUFC 47-0000 	SN090198	Flush-mounted room temperature sensor for temperature measurement in residential and business premises (see also chapter air conditioning technology) **Mounting / attachment:** in flush-mounted box - in almost all Surface switch ranges 50x50 mm adaptable **Housing colour:** pure white, like RAL 9010, glossy **Housing material:** PC plastic **Ambient temperature:** –10 to +50 °C **Admissible humidity:** max. 95% rel. humidity, non-condensing **Protection rating:** IP30 **Protection class:** III **Electrical connection:** screw-type terminals 0.5 mm^2 to 1.5 mm^2	

BACNET ROOM CONTROLLER KTRBUU
FLUSH-MOUNTED INSTALLATION – DESIGN BERLIN UP

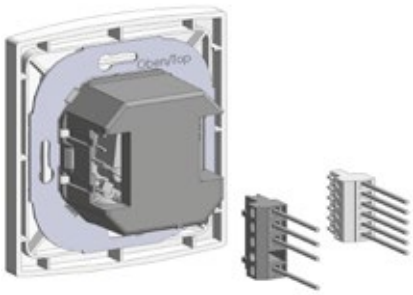
ACCESSORIES	ITEM NO.	FEATURES	EURO / PG
AF-2 	G9040380	Temperature sensor for temperature measurement outdoors and in humid areas, special protection against dust and humidity (see also chapter sensor technology) **Mounting / attachment:** surface / wall mounting **Housing colour:** pure white, like RAL 9010 **Housing material:** PA plastic (30% GF reinforced) **Ambient temperature:** –30 to +70 °C **Admissible humidity:** max. 95% rel. humidity, non-condensing **Protection rating:** IP65 **Protection class:** III **Electrical connection:** screw-type terminals 0.14 mm² to 2.5 mm²	
KF-2 	G9031446	Cable temperature sensor for temperature measurement / temperature limiting of the floor or supply air (see also chapter sensor technology) **Mounting / attachment:** In immersion sleeve, protection coil, on pipe, etc. **Pipe material/length:** PE, 1.5 m **Sensor sleeve material:** V4A (1.4571) **Ambient temperature:** –35 to +100 °C **Admissible humidity:** max. 95% rel. humidity, non-condensing **Protection rating:** IP 67 **Protection class:** III **Electrical connection:** Safety extra low voltage only max. 30 V AC / 42 V DC	
ZB00A-010.100 	H9100010	Electro-thermal valve actuator (see also Heating / Air Conditioning Technology chapter) **Mounting / attachment:** M 30x1.5 **Housing colour:** pure white, like RAL 9010 **Housing material:** PC plastic, GF (20%) **Operating voltage:** 230 V~, 50 Hz **max. power consumption:** 70 W **max. starting current:** approx. 0.3 A **Ambient temperature:** 0 … 50 °C **Storage temperature:** –20 ... +70 °C **Admissible humidity:** max. 95% rel. humidity, non-condensing **Protection rating:** IP42 **Protection class:** II **Average power consumption:** approx. 3 W **Opening / closing time:** approx. 4 min **Nominal stroke:** 3 mm **Function type:** normally closed **Nominal closing force:** 90 N **Connecting cable:** 0.8 m / 2x0.5 mm²	
ZB00A-010.185 	G8990010	Electrothermal valve actuator for fully automatic hydraulic comparison **Mounting / attachment:** M 30x1.5 **Housing colour:** grey-orange **Housing material:** PA6 plastic **Operating voltage:** 230 V~, 50 Hz **max. power consumption:** 30 W **max. starting current:** approx. 0.13 A **Ambient temperature:** 0 … 50 °C **Storage temperature:** –25 ... +60 °C **Admissible humidity:** max. 95% rel. humidity, non-condensing **Protection rating:** IP42 **Protection class:** II **Average power consumption:** 1.7 W **Opening / closing time:** approx. 3 min **Nominal stroke:** 3.5 mm **Function type:** normally closed **Nominal closing force:** 110 N **Connecting cable:** 1 m / 2x0.34 mm²	

BACNET ROOM CONTROLLER KTRBUU
FLUSH-MOUNTED INSTALLATION – DESIGN BERLIN UP

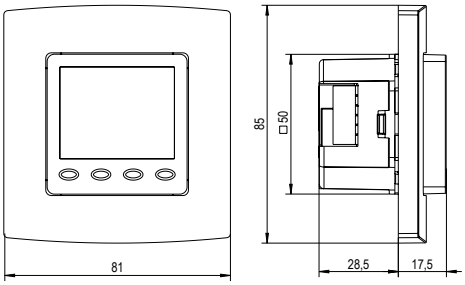
ILLUSTRATIONS

KTRBUu with alre frame 'Berlin'

Pluggable screw-type terminals



KTRBUu with alre frame 'Berlin'



ALRE BACNET INDIVIDUAL ROOM CONTROLLER ADAPTATION

KTRBUU217.456 – FLUSH-MOUNTED

MANUFACTURER	RANGE	COLOUR RAL 9010	ADAPTATION	ADAPTATION
BERKER	S.1	polar white (matt)	KTRBUu217.456#56	not required
BERKER	S.1	polar white (glossy)	KTRBUu217.456#55	not required
BERKER	Arsys	polar white (glossy)		KTRBUu217.456#07 + 1108 01 69
BERKER	B.3	aluminium / polar white (matt)	KTRBUu217.456#56	not required
BERKER	B.3	aluminium / polar white (glossy)	KTRBUu217.456#55	not required
BERKER	B.7	glass / polar white (matt)	KTRBUu217.456#56	not required
BERKER	B.7	glass / polar white (glossy)	KTRBUu217.456#55	not required
BERKER	K.1	polar white (glossy)		KTRBUu217.456#07 + 1108 71 09
BUSCH-JAEGER	Reflex SI / SI Linear	alpine white (glossy)	KTRBUu217.456#28	not required
BUSCH-JAEGER	Busch-balance SI	alpine white (glossy)	KTRBUu217.456#55	not required
BUSCH-JAEGER	impuls	alpine white (glossy)		KTRBUu217.456#07 + 1746 / 10-74
BUSCH-JAEGER	solo / future / axcent etc.	studio white – see RAL 9016 below		
Elso	Joy	pure white (glossy)	KTRBUu217.456#55	not required
Elso	Fashion / Riva / Scala	pure white (glossy)		KTRBUu217.456#07 + (203084)
GIRA	surface switch	pure white (glossy)		KTRBUu217.456#07 + 0282 112
GIRA (System 55)	Standard / E2	pure white (semi-gloss)	KTRBUu217.456#56	not required
GIRA (System 55)	Standard / E2 / E3	pure white (glossy)	KTRBUu217.456#55	not required
GIRA (System 55)	E22	pure white (glossy)	KTRBUu217.456#55	not required
GIRA (System 55)	Event	pure white (semi-gloss) + opaque …	KTRBUu217.456#56	not required
GIRA (System 55)	Event	pure white (glossy) + opaque…	KTRBUu217.456#55	not required
GIRA (System 55)	Esprit	pure white (semi-gloss) + glass, aluminium …	KTRBUu217.456#56	not required
GIRA (System 55)	Esprit	pure white (glossy) + glass, aluminium …	KTRBUu217.456#55	not required
GIRA	S-Color	pure white (high-gloss)		KTRBUu217.456#07 + 0282 40
JUNG	CD 500 / CD plus	alpine white (glossy)		KTRBUu217.456#07 + CD 590 Z WW
JUNG	A 500 / A 550/AS 500/A plus / A flow	alpine white (glossy)	KTRBUu217.456#55	not required
JUNG	LS 990	alpine white (glossy)		KTRBUu217.456#07 + LS 961 Z WW
JUNG	LS plus	alpine white (glass)		KTRBUu217.456#07 + LS 961 Z WW
JUNG	A creation	alpine white (glossy)	KTRBUu217.456#55	not required
JUNG	LS Design	alpine white (glossy)		KTRBUu217.456#07 + LS 961 Z WW
MERTEN (System M)	M-Smart, M-Plan, M-Pure	polar white (matt)	KTRBUu217.456#56	not required
MERTEN (System M)	M-Smart, M-Plan, M-Creativ, M-Pure	polar white (glossy)	KTRBUu217.456#55	not required
MERTEN (System Basis)	1-M / Atelier-M	polar white (glossy)	KTRBUu217.456#55	not required
MERTEN (Surface System)	Artec / Antik	polar white (glossy)		KTRBUu217.456#07 + 5160 99
MERTEN	1-M/M-Smart / M-Plan / M-Pure / D-Life	active white – see RAL 9016 below		
PEHA	Standard	pure white (glossy)		KTRBUu217.456#07 + 80.670.02 ZV
PEHA	Dialog	pure white (glossy)		KTRBUu217.456#07 + 95.670.02 ZV
PEHA	Aura	pure white (matt) / glass		KTRBUu217.456#07 + 20.670.02 ZV
PEHA	Badora	pure white (glossy)		KTRBUu217.456#07 + 11.670.02 ZV

MANUFACTURER	RANGE	COLOUR RAL 9016	ADAPTATION	ADAPTATION
BUSCH-JAEGER	solo / future / future linear	studio white (RAL 9016, glossy)		KTRBUu217.456#27 + 1746/10-84
BUSCH-JAEGER	axcent	studio white (RAL 9016, glossy)		KTRBUu217.456#27 + 1746/10-84
BUSCH-JAEGER	carat (glass, bronze, gold)	studio white (RAL 9016)		KTRBUu217.456#27 + 1746/10-84
BUSCH-JAEGER	alpha (nea / exclusive *)	studio white (RAL 9016, glossy)		KTRBUu217.456#27 + 1746/10-24G
MERTEN	M-Smart, M-Plan, M-Pure	active white (RAL 9016, glossy)	KTRBUu217.456#59	not required
MERTEN	1-M / Atelier-M	active white (RAL 9016, glossy)	KTRBUu217.456#59	not required
Merten	D-Life	lotus white (RAL 9016)		KTRBUu217.456#27 + MEG4500-6035
PEHA	Standard	arctic		KTRBUu217.456#27 + D 80.670 ZV AW

*) During assembly, you need to remove 4 plastic tabs located at the rear of the frame.

NOTE: Most light switches are designed in the colour 'like RAL 9010', although different switch manufacturers use different designations for this colour. Coloured, glass and aluminium frames are also combined with white jacks or plugs so that controllers with white covers can also be integrated into these frames. Check the precise application in each individual case. The frames have different surface qualities (matt / glossy). For design reasons, the cover of the controller should have the same quality as the frame. We accept no liability for slight variations in colour and surface finish or for accuracy of fit. When installing devices into multi frames, always assemble the temperature controllers at the lowermost position.

'50x50 controller': The housing covers of the 50x50 controllers are 50x50 mm in size. Using a 50x50 mm insert frame, they can be integrated into nearly all light switch ranges in accordance with DIN 49075. The 50x50 mm insert frames must be ordered from the light switch manufacturer or from a wholesaler. The order number of the insert frame corresponding to the switch range in question can be found in the column 'For adaptation of '50x50' KTRBUu'.

'55x55 controller': The housing covers of the 55x55 controllers are 55x55 mm in size. Many light switch ranges have inner dimensions of 55x55 mm. Therefore, the 55x55 controllers can be installed directly in the light switch frame without the use of an insert frame. See the column 'Adaptation in switch range (55x55)' to determine whether the 55x55 controller fits in the given light switch range (KTRBUu217.456#xx).

All information regarding switch manufacturers' product lines and item numbers was last updated in 12 / 2022 | No liability is assumed for the information provided. | Technical specifications subject to change.

NOTES

BEAUTY
IN SIMPLICITY.


Komfort
20°C
23.0°C
Mode
Menü
Fr

alre

ALRE-IT
REGELTECHNIK GMBH

Richard-Tauber-Damm 10
12277 Berlin, Germany

Phone: +49(0)30 399 84 0
Fax: +49(0)30 391 70 05
E-mail: mail@alre.de

www.alre.de

**alre –
simply
control.**