



# Planeck

## Design Clima-Cassette

Antipastiteller

1. Portion  
+ Brot  
+ Dip  
auch zum Mitnehmen

5,00€



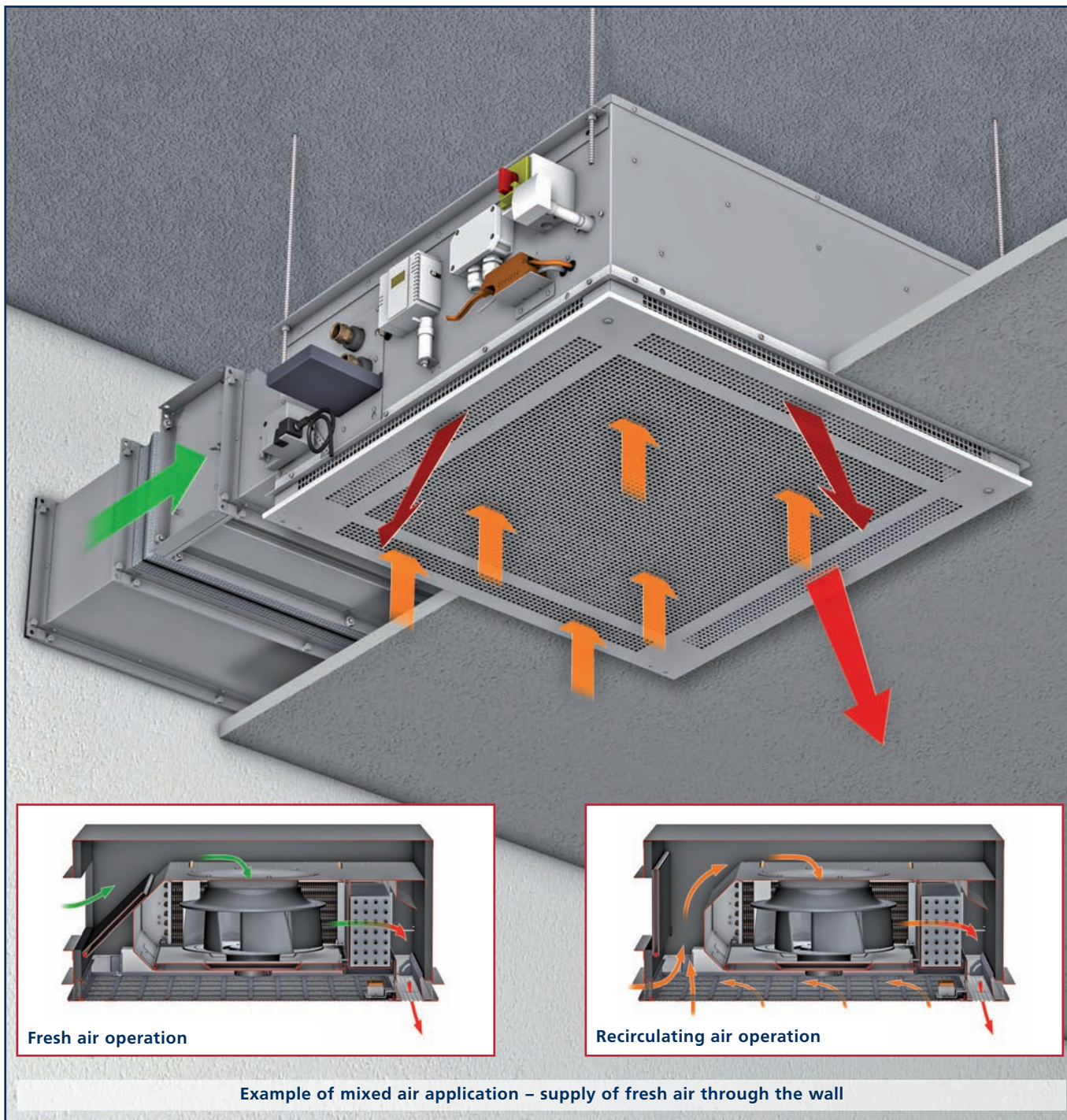
# 1.64 Planeck

## Design Clima-Cassette

### Product description

For the first time ever, the innovative Planeck air handling scheme incorporates the positive features of ceiling-mounted cassette units with the demand for fresh air operation. A very specialised unit construction and internal air flow enable the compact integration of the following functions:

- Single cassette-type unit with genuine mixed air function
- Mixed air flap integrated into the unit
- Duct connection with various transition elements for duct systems (accessories)
- Continuously variable speed controller for the energy efficient CO<sub>2</sub>-managed supply of fresh air (optional)
- Combined intake/discharge design with internal adjustable louvres that are not visible from the outside



Fresh air operation

Recirculating air operation

Example of mixed air application – supply of fresh air through the wall

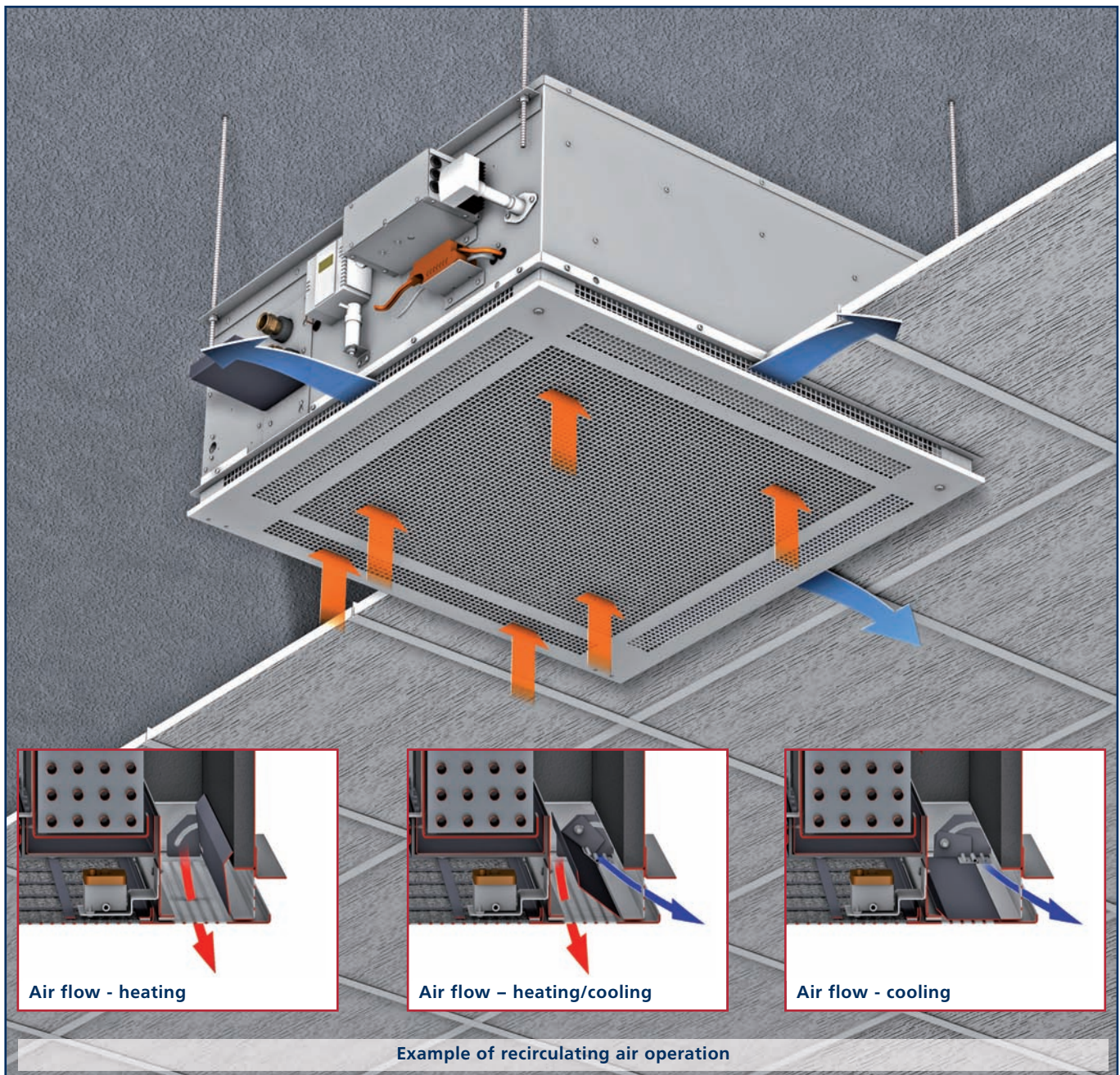


### Product description

Planeck is available in a version visibly identical to the recirculating air unit combining fresh air and recirculating air units in the same building. The visible part of the unit, the combined intake/discharge, was specially designed based on the latest architectural requirements. Clear contours and a creative design allow the unit to be visually appealing and integrated into any ceiling situation.

- Intake/discharge design with 44 mm installation height allows for the optimum distribution of warm and cold air into the room.
- Integrated adjustable louvres that can be adjusted on three sides

- Continuously variable speed controller for energy-efficient, on-demand heating and cooling
- Heat exchanger versions for water and refrigerant (on request)
- Cooling model with integrated condensation tray and pump
- Fully-automated control via **KaControl** control system (option)



# 1.64 Planeck

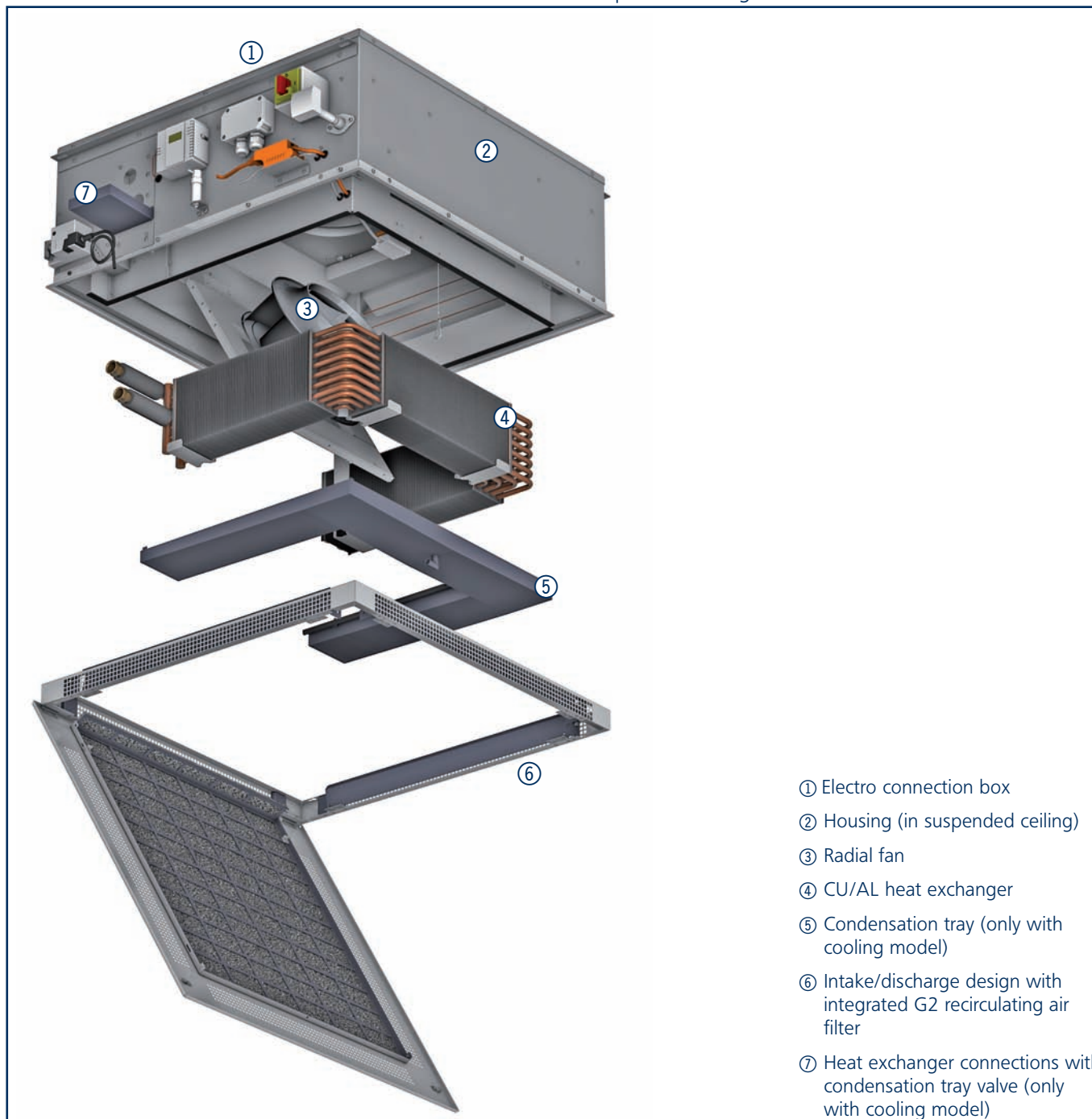
## Design Clima-Cassette

### Product description

The horseshoe-shaped Planeck heat exchanger, adjustable from three sides, permits fresh air supply from the fourth side and, in doing so, keeping the unit installation height to a minimum. Air is optimally distributed across the surface of the heat exchanger by means of the air flow-optimised plastic impeller.

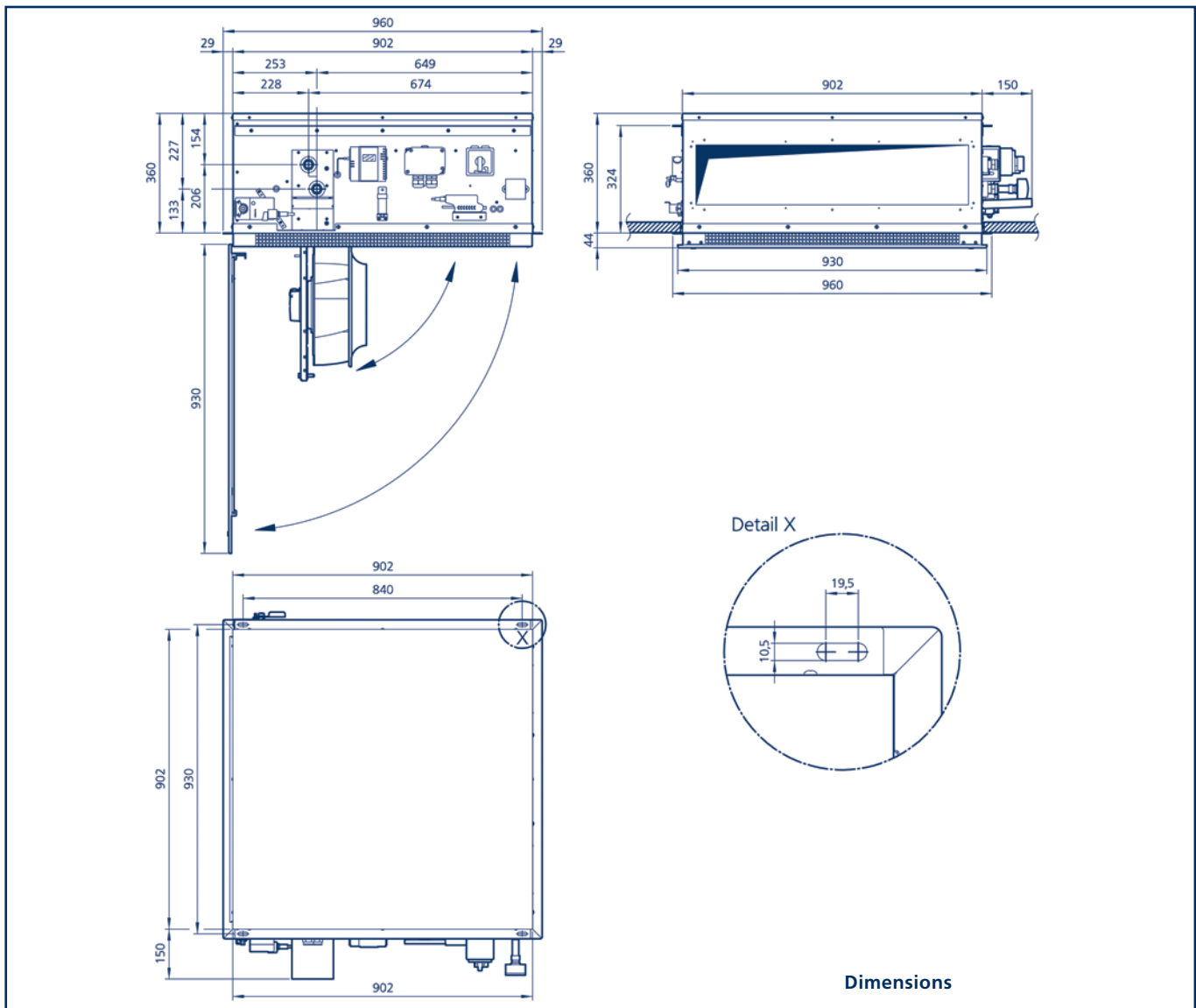
The designer panel is fully removable for the simplest cleaning and servicing of the unit.

- Designer panel with integrated hinged G2 recirculating air filter.
- Removable condensation tray for easy servicing and cleaning
- Horseshoe-shaped heat exchanger
- Plastic radial fan with optimised flow
- Circular plate for a clean and tidy arrangement on the suspended ceiling



- ① Electro connection box
- ② Housing (in suspended ceiling)
- ③ Radial fan
- ④ CU/AL heat exchanger
- ⑤ Condensation tray (only with cooling model)
- ⑥ Intake/discharge design with integrated G2 recirculating air filter
- ⑦ Heat exchanger connections with condensation tray valve (only with cooling model)





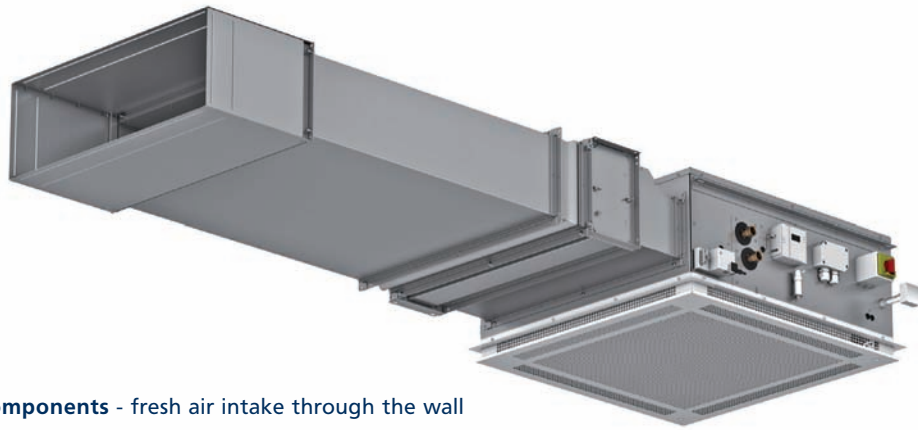
Dimensions

Planeck		Recirculating air	Mixed air
Basic unit	Typ	794__110	794__410
Max. discharge height $H_{max}$	m	2,3 - 3,3	2,3 - 3,3
Air flow volume	$m^3/h$	600 - 1500	600 - 1500
External pressure	Pa	-	ca. 100
Noise pressure level (at a distance of 3m)	db (A)	39 - 55	39 - 55
<b>Heat output</b>	at LPHW 75/65/20 °C	max. 18	max. 18
	at LPHW 75/65/0 °C	-	max. 26,5
<b>Heat output</b>	with R134a refrigerant	max. 8	max. 8
	Condensation temp. 43 °C, entering air temp.. $t_{L1}=20$ °C, Entering air temp. $t_{L1}=0$ °C	-	max. 15,5
<b>Cooling capacity</b>	with LPCW 10/16 °C, 28 °C/50 % r. h.	max. 4,9	max. 4,9
Electrical power consumption	W	140 - 240	275 - 350
Current consumption	A	max. 1,1	max 1,6

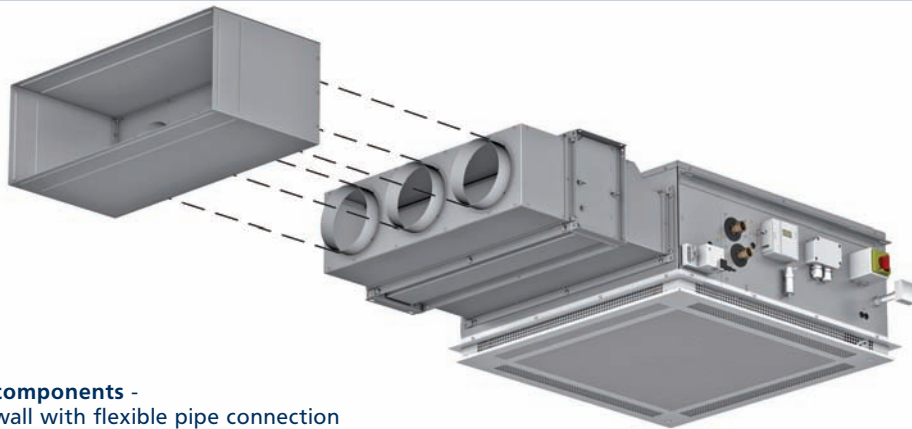
# 1.64 Planeck

## Design Clima-Cassette

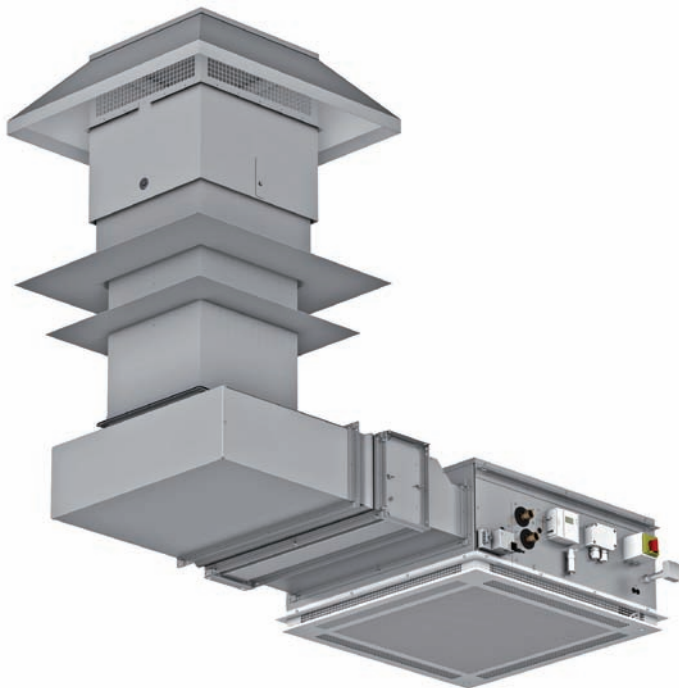
### Components for fresh air intake



Planeck ML with mixed air components - fresh air intake through the wall



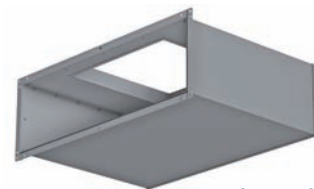
Planeck ML with mixed air components - fresh air intake through the wall with flexible pipe connection



Planeck ML with mixed air components - fresh air intake through the roof



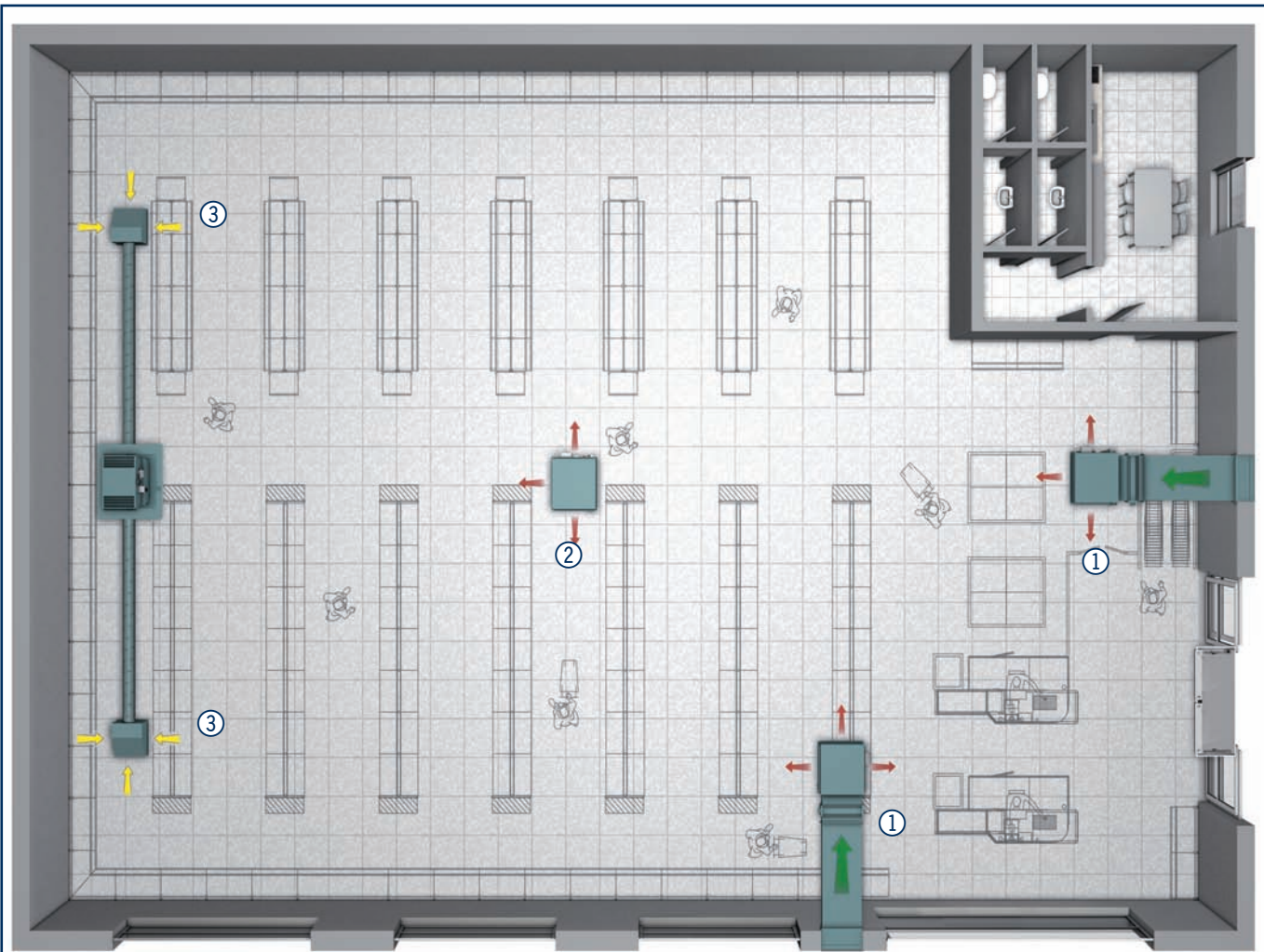
Filter cassette



Reducing bend



Flexible pipe connection



#### Layout example

- ① Planeck mixed air ML: installation close to the external walls for optimum supply of fresh air
- ② Planeck recirculating air UL: to meet the additional heating and cooling demand
- ③ Exhaust air unit (e.g.: exhaust via roof extract fan)

## Planeck – at a glance

- Single cassette-type unit with full-blown mixed air function.
- EU design-protected panel made from powdercoated sheet steel RAL 9016 (other colours optional)
- 44 mm intake/discharge element for optimum air distribution.

- Integrated, hidden air guide system
- Integrated mixed air flap
- Energy efficient due to continuously variable speed controller for CO<sub>2</sub>-controlled supply of fresh air and/or heating/cooling operation according to demand
- Utilisation of waste heat from refrigerating plants by means of refrigerant heat exchanger (on request)
- Extensive ductwork and control accessories

### Overview of control technology

#### Single-phase motor

The fan motors (230 V/50 Hz AC) are equipped with a single-phase winding and a split-phase capacitor. The speed can be changed with a 5-speed single-phase controller by reducing the voltage (transformer principle). Continuously variable speed control (e.g. for an on-site DDC system) is also possible.

#### Technical data

Nominal voltage	230 V/50 Hz
Current uptake	1.6 A
Power consumption	0.32 kW

#### Motor protection

Thermal contacts are embedded in the motor winding. These thermal contacts (temperature monitors) open as soon as the maximum permissible winding temperature of 155 °C is exceeded.

All thermal contacts must be connected in series with group control. This means that theoretically a large number of motors can be protected in any order via a motor protection device. However, the number of Planeck is all but limited by the switching capacity of the switching devices.

In the event of a fault (e.g. mechanical blockage, damage to equipment), it is vital that the unit does not automatically turn itself on again. All Kampmann multi-contact switches have a restart lock.

Thermal contacts fulfil the conditions for protecting against the overloading of units with electro mechanical drive, VDE 0730. Standard motor protection switches or bimetal trips are not suitable as motor protectors for multilevel driven motors.

#### KaControl Controller – the all-inclusive solution

Kampmann Planeck with **KaControl** controller equipment is completely wired and supplied ex works with all electrical built-in parts ready for connection. A high-capacity parameterisable microprocessor provides all essential functions. Therefore, each Planeck is equipped with its own "intelligence" and can be operated in groups via Kampmann networks. Furthermore, **KaControl**-Planeck can be fitted with plug-in communication interfaces for single room control mode or also for uplink into superior control systems ( e.g. LON, BACnet).

#### Control functions for KaControl - Recirculating air

- Automatic adjustment of the fan speed depending on the heating or cooling requirements (0 – 100 %)
- Valve control for 2-pipe systems (heating/cooling) for thermoelectric 24V on/off fan drives

- Analysis of alarm message 'thermal contact'
- Changeover function for automatically switching over the heating/cooling operation on centrally controlled 2-pipe systems
- Monitoring and evaluation of the alarm contact on the condensation pump (only cooling operation)
- Integrated timer program with day-night-weekly switching functions

#### Electromechanical controls

Kampmann Planeck are fitted with radial fans and external rotor motors, single-phase model, 230 V.

- It is possible to control several units at the same time.
- Separate switching groups are provided for recirculating and mixed air units.
- The total output of the Planeck to be connected must not exceed the maximum switching capacity of the switching device.

#### Switching devices and controls units

- All switching devices and control units comply with the directive for factory-built switches, VDE 0660 part 5.
- All switching devices are fitted with an operating indicator light.
- In the event of a fault, a locking cut-off occurs in order to prevent the motor constantly switching on and off if it is defective. Once the stage switch has been reset to zero, the motor can be turned on again.
- Following a power failure, switching devices that connect to room thermostats automatically switch on again.
- The switching devices and control units should not be used in explosive rooms.

#### Specially designed models

Stage switches can be supplied on request

- For installation in control cabinets, assembled onto a mounting plate, rocker switch and indicator lights supplied separately
- With additional relays for different applications
- For connection to on-site BMS systems



**KaControl controller – Recirculating air**



KaController - type 3210001

KaController - type 3210002

Control technology

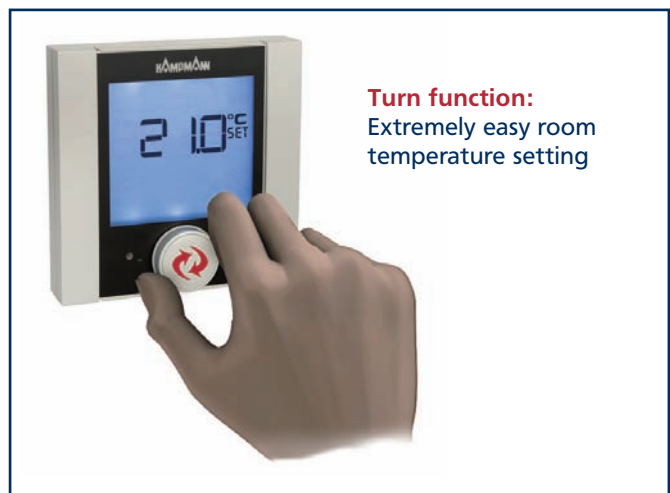
**KaController control unit**

The "face" of the **KaControl** building automation system: the KaController control unit.

Based on the principle "only show what is used", even untrained users can intuitively cope with the control options. As such, the KaController meets the primary requirements of a room user in terms of a ventilation or air conditioning system: "I am warm" – "I am cold" – "The air is unpleasant" or even "The air conditioning system is too loud." The basic functions are always operated in the same manner via the KaController.

**Product features**

- High quality room control units for wall mounting
- Plastic housing colour similar to RAL 9010
- Communications interface to the Kampmann T-Lane bus system
- Large LCD multifunctional display with energy-saving, automatic LED background lighting
- Integrated temperature sensor
- Press-/turn navigator with continuous turn/rest function, individually adjustable basic display
- Integrated day, night, weekly control program
- Password protected parametrisation level
- Function buttons on the side for quick access (only with type 3210002)



# 1.64 Planeck

## Control technology

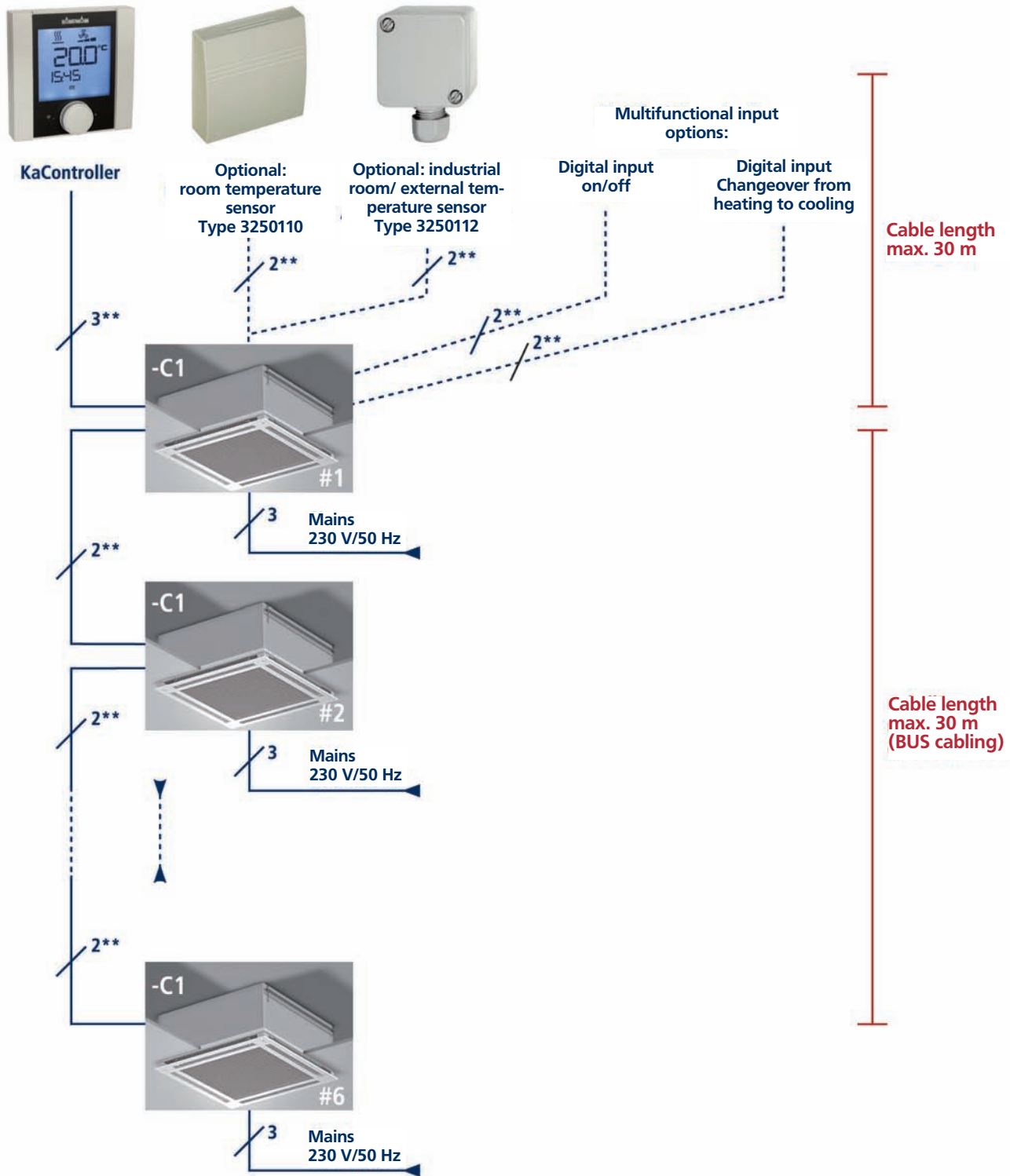
### KaControl controller – recirculating air

	<p><b>KaController with one-touch operation, type 3210001</b></p> <p>Room control unit with large LCD multifunctional display and one-touch operation, only for -C1 control unit</p> <p><b>Housing:</b> wall mounted (surface mounted) <b>Colour of housing:</b> white, similar to RAL 9010</p> <p><b>Voltage:</b> 24 V DC</p> <p><b>Temperature setting range max.:</b> 8 °C – 35 °C</p> <p><b>Protection class:</b> IP30</p> <p><b>Display dimensions H x W:</b> 48 x 51 mm</p> <p><b>Housing dimensions H x W x D:</b> 86 x 86 x 29 mm wall installation height (+29 mm flush-mounted installation)</p>
	<p><b>KaController with function buttons on the side, type 3210002</b></p> <p>for quick access to fan setting, operating modes, eco mode, clock and timer program, otherwise similar to type 3210001; only for -C1 control unit</p> <p><b>Housing:</b> wall mounted (surface mounted) <b>Colour of housing:</b> white, similar to RAL 9010</p> <p><b>Voltage:</b> 24 V DC</p> <p><b>Temperature setting range max.:</b> 8 °C – 35 °C</p> <p><b>Protection class:</b> IP30</p> <p><b>Display dimensions H x W:</b> 48 x 51 mm</p> <p><b>Housing dimensions H x W x D:</b> 86 x 86 x 29 mm wall installation height (+29 mm flush-mounted installation)</p>
	<p><b>Room temperature sensor, type 3250110</b></p> <p>The room temperature sensor can be used if the KaController does not register a temperature measurement as a result of where it is installed..</p> <p><b>Housing:</b> wall mounted <b>Colour of housing:</b> white</p> <p><b>Protection class:</b> IP30</p> <p><b>Dimensions H x W x D:</b> 84,5 x 84,5 x 25 mm</p>
	<p><b>Industrial room/External temperature sensor, type 3250112</b></p> <p>The industrial room/ external temperature sensor can be used if the KaController does not register a temperature measurement as a result of where it is installed or if the external temperature is to be recorded.</p> <p><b>Housing:</b> wall mounted <b>Colour of housing:</b> white</p> <p><b>Schutzart:</b> IP65</p> <p><b>Dimensions H x W x D:</b> 65 x 50 x 44,5 mm</p>
	<p><b>Pipe clip-on sensor, type 3250115</b></p> <p>for decentralised switching from heating to cooling with 2-pipe systems. To record the water temperature, retaining strap included, 3m cable length</p>
	<p><b>Thermoelectric shut-off valve, type 100942</b></p> <p>3/4", 24 V AC/DC actuator, only for -C1 control unit</p>
	<p><b>CANbus card, type 3260301</b></p> <p>Serial CANbus card for extending the number of units in a single circuit controller up to 30 units, 1 required per Planeck</p>

Control technology



Single-circuit controller – System configuration for max. six C1 Planeck



Control technology

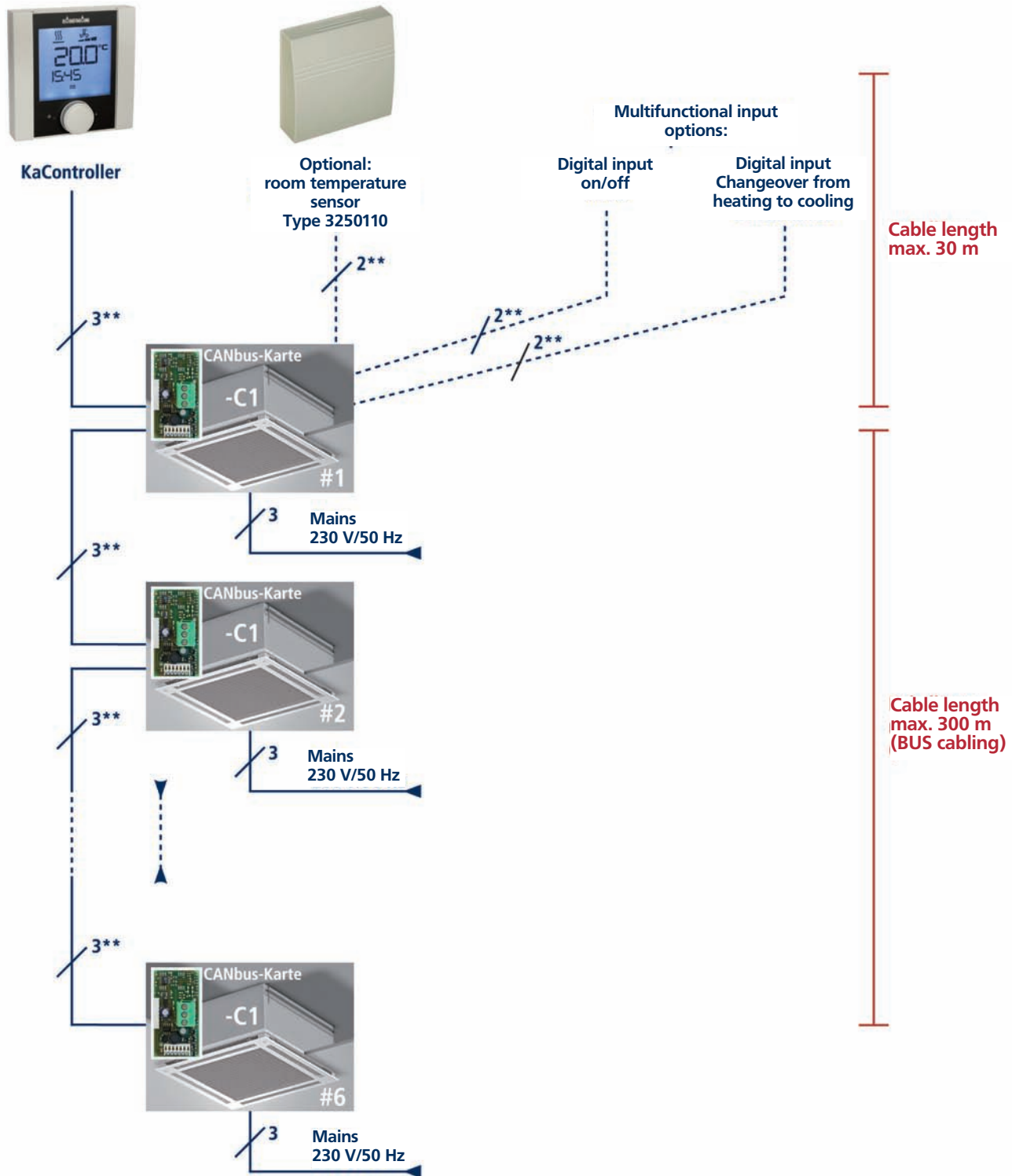
\*\* The connections must be laid in CAT5 (AWG 23) (or equivalent).  
**Please note: all BUS lines must be wired in a line formation – star configuration is not permissible!**

# 1.64 Planeck

## Control technology

### KaControl controller – recirculating air

#### Single-circuit controller – system configurations for more than six C1 Planeck



\*\* The connections must be laid in CAT5 (AWG 23) (or equivalent).

**Please note: all BUS lines must be wired in a line formation – star configuration is not permissible!**





#### KaControl recirculating air control unit, type 3232100

Control unit with operating display for automatic continuous speed control of a Planeck; suitable for heating and cooling operation, fan control can be set manually, absence program with room frost protection function, integrated day, night, weekly control program, password protected parametrisation level; only for -V controller model

**Housing:** Wall mounted

**Voltage:** 230 V AC

**Protection class:** IP65

**Dimensions of the microprocessor controller with display H x W x D:**

140 x 110 x 60 mm

**Housing dimensions H x W x D:** 310 x 302 x 151 mm



#### Room temperature sensor, type 3250110

The room temperature sensor can optionally be used if the KaController does not register a temperature measurement as a result of its location.

**Housing:** Wall mounted **Colour of housing:** white

**Protection class:** IP30

**Dimensions H x W x D:** 84,5 x 84,5 x 25 mm



#### Industrial room/external temperature sensor, type 3250112

The industrial room/external temperature sensor can be used if the KaController does not register a temperature measurement as a result of its location or if the external temperature is to be recorded.

**Housing:** Wall mounted **Colour of housing:** white

**Protection class:** IP65

**Dimensions H x W x D:** 65 x 50 x 44,5 mm



#### Thermoelectric shut-off valve, type 100912

- For use as 3/4" gate valve base part
- With thermoelectric 230 V, 50 Hz actuator, sealed in a de-energised state
- For use with 5-stage, single-phase controller, type 30783

# 1.64 Planeck

## Control technology

### KaControl controller – recirculating air

#### Single circuit controller – system configurations for max. 10 Planeck-V

Multifunctional out, change-over contact, max. 230 V AC/2 A  
The following can be selected:

- Heating requirement
- Chill requirement
- Collective faults

Pump 230V max. 2 A

Valve 230V max. 2 A

KaControl Recirculating air control unit Type 3232100

Industrial/external temperature sensor Type 3250112

Optional: Industrial/external temperature sensor 2 Type 3250112 Average determination

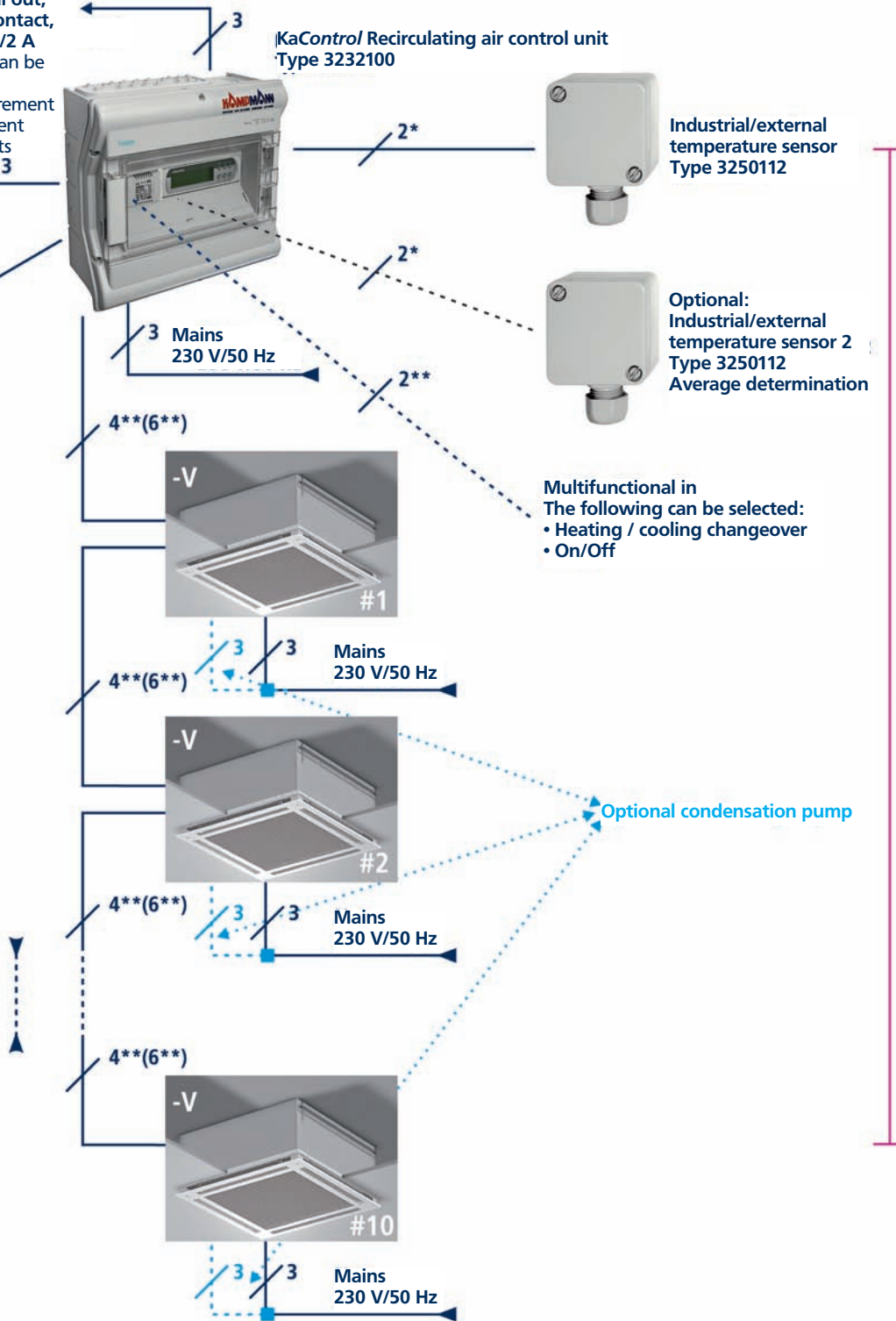
Multifunctional in  
The following can be selected:

- Heating / cooling changeover
- On/Off

Cable length max. 30 m

Cable length max. 30 m

Control technology



The thermal contacts on the fan motors must be wired in series when operating several Planeck at the same time!

\* The connections must be laid as shielded cables e.g. J-Y(St)Y 0.8 mm (or equivalent).

\*\* The cables must be CAT5 (AWG 23) (or equivalent)..

( ) When connecting a condensate pump



KaControl controller – recirculating air

**KaControl operation**  
**-V controller model**



Basic functions of the control unit:

- LCD display with automatic background lighting
- If an alarm is emitted, the background lighting does not switch off.
- If there is no input made on the control unit for 60 minutes, it reverts to the standard view.
- The password protected service menu can be called up with the PRG button.

Control technology

Examples of the selection menu	
	<p><b>Standard view</b></p> <p>The following information appears on the standard view:</p> <ul style="list-style-type: none"> <li>• Date/Time</li> <li>• Room temperature</li> <li>• Preset fan control</li> <li>• Day mode/night mode</li> </ul>
	<p><b>Power function</b></p> <p>In the "Power function" selection menu, high-speed heating (power function) is activated by pressing the ENTER button. Whilst the power function is activated, the room is supplied with maximum heat for a maximum of 15 minutes.</p>
	<p><b>Heating setpoint</b></p> <p>Different room temperature setpoints for day and night mode can be set from the "Heating setpoint" selection menu.</p>
	<p><b>Timer programs</b></p> <p>A switch-on and switch-off time can be set for each day from the "Timer programs" selection menu.</p>
	<p><b>Alarm management</b></p> <p>Any alarm will be displayed in clear text in the alarm portal. The alarm indicator will only be deleted from the alarm portal when it has been detected and acknowledged.</p>

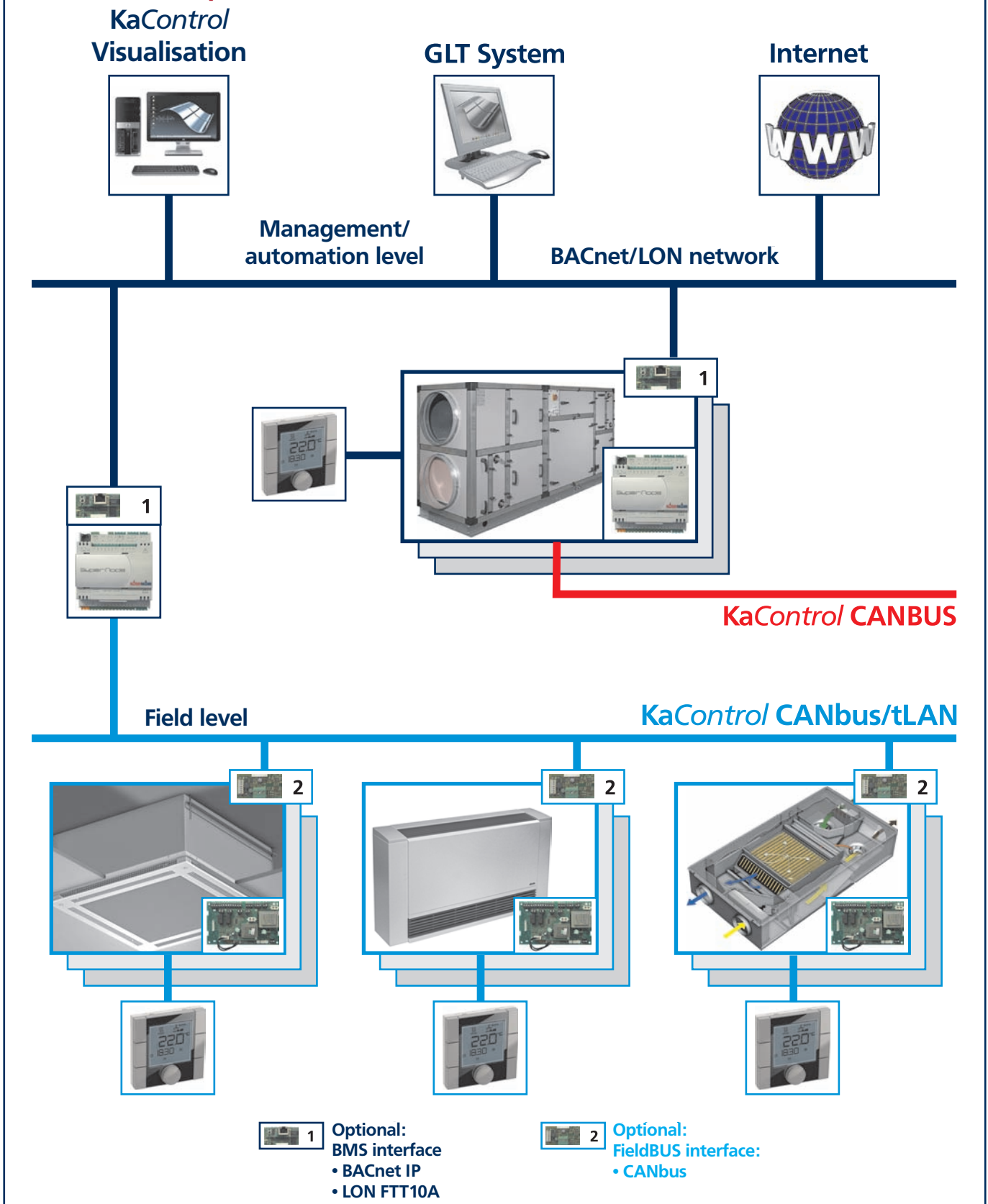
# 1.64 Planeck

## Control technology

### KaControl building automation

#### Combination options for the KaControl controller

Control technology



**KaControl building automation**

**Integration of KaControl into different building management systems**

KaControl offers interfaces and application options on all levels of modern building automation. The system, or parts of the system, can be linked into any BMS strategies.

**Field level**

Room-based single systems with a control unit can be expanded via the Kampmann tLAN-Bus or a CANbus system.

**Room automation**

Single systems in several rooms can be combined into a network via field bus interfaces. Here it is also possible to operate units with different operating modes into a small data bus system.

**Management/automation level**

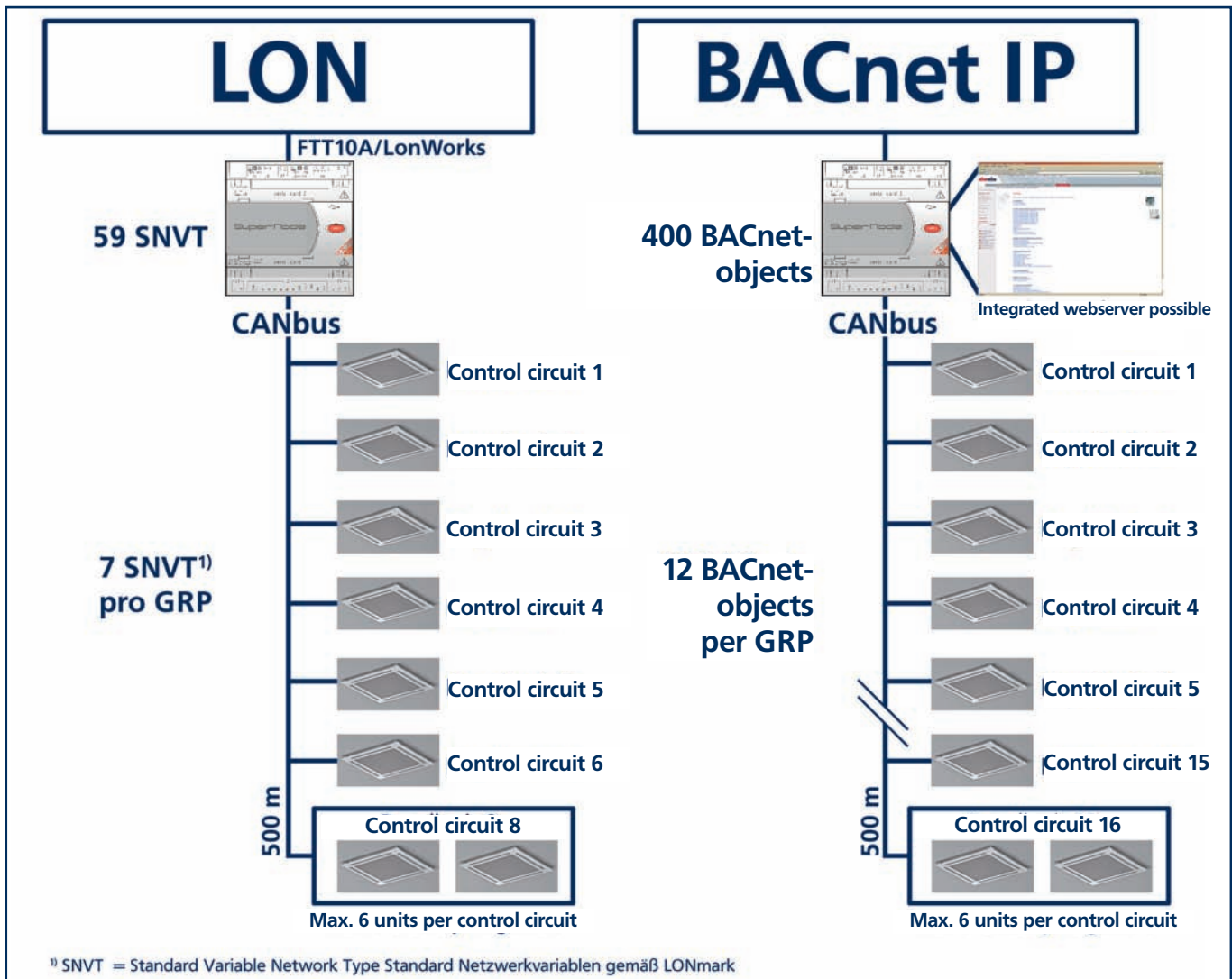
Here a CANbus system or a connection via RS485 technology offer the option of linking units from field level to work with centralised air conditioning units. An entire solution for air conditioning and ventilation can be expanded via KaControl building control technology applications with PC and industrial PC.

**Integration into higher-order systems**

Furthermore, KaControl offers the option of producing a defined data transfer between the air conditioning and the superior primary control unit via BMS interfaces.

For example, this way defined communication profiles between KaControl and the management system can be used via BACnet or LON control standards.

Control technology





# 1.64 Planeck

## Control technology

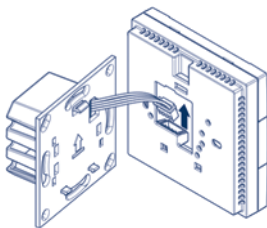
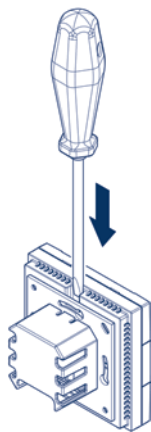
### KaControl matrix of functions



Type 3210001



Type 3210002



Control technology

#### KaController functions

##### Temperature measurement

Room temperature setting via an integrated temperature sensor with optimum response time

##### Operation

Simple and intuitive operator guidance, operation of the selection menus via a press/turn navigator or speed dials

##### Display

Large LCD display with adjustable LED background lighting

##### Time functions

Real time clock with weekly timer control program, 2 switch-on and 2 switch-off times per day, power reserve min. 48 hours e.g. weekly timer program

	ON1	OFF1	ON2	OFF2
Mon	6:00	18:00	--:--	--:--
Tue	6:00	18:00	--:--	--:--
Wed	6:00	18:00	20:00	22:00
Thu	6:00	18:00	--:--	--:--
Fri	6:00	18:00	--:--	--:--
Sat	8:00	14:00	--:--	--:--
Sun	--:--	--:--	--:--	--:--

Example: weekly timer control program

##### Alarm management

Alarm indicator on the display (e.g. A12 = motor fault)

##### Symbol-based menu navigation

Suitable for international use with its symbol-based menu navigation

##### Basic display

Configuration of the standard view via parameters (e.g. hide time)

##### Function buttons

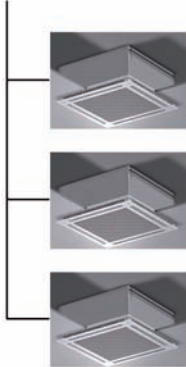
Quicker access to the selection menus via shortcuts - **only with type 3210002**

##### Blockage of operating functions

Blocking of operating functions via parameters (e.g. blockage of timer programs)

##### Easy to install

Quick and simple installation with intelligent plug-in connection between the operating and connection module



Central control station

**Functions of the Planeck C1 controller model**

**Room temperature setting**

Room temperature setting via sensor in KaController

**Room temperature setting**

Room temperature setting by ext. room temperature sensor

**Temperature control**

Temperature control by fan speed, optional by PWM valve controller

**Motor protection**

Motor protection via temperature monitoring (thermal contact), analysis via the KaControl control panel

**Speed control**

Automatic continuously variable speed control depending on the room temperature

**Maximum fan speed**

Setting of the maximum fan speed via a potentiometer on the control panel

**Changeover function**

Heating to cooling changeover on a 2 pipe system via an isolated ext. contact or built-in temperature sensor

**Room frost protection function**

Monitoring of the room temperature at each system status up to a threshold of 8 °C

**Silent valve control**

Silent valve control via SSR outputs

**Digital inputs**

2 digital multifunctional inputs configurable via parameters:  
 • Day/economy • On/off • Condensation alarm

**Group control**

Group control of up to 6 units per KaController as standard

**Group control**

Group control of up to 30 units per KaController via an additional card (CANbus)

**Economy/day mode**

Switch from economy to day mode on the KaController or via an external contact

**ON/OFF**

Switching on/off on the KaController or via an external contact

**Control via 0..10 Volt signal with on-site building automation**

Control of the Planeck via a 0..10 V signal:  
 0..1 V: unit OFF  
 1..10 V: fan speed 0..100 %

**Central control unit (BMS)**

Connection to the Kampmann PlantVisor visualisation system is possible via an additional card (RS485)

**BACnet/LON**

Optional gateways for connecting into BACnet/IP or LON networks

Control technology

# 1.64 Planeck

## Control technology

### KaControl matrix of functions

Control technology



Type 3232100

#### Functions of the control unit for the V controller model

##### Temperature measurement

Room temperature setting via 2 external room temperature sensors with average determination

##### Operation

Simple and intuitive operator guidance via 6 operating buttons, clear input menu display, LCD display with background lighting

##### Alarm management

Alarm indicator clearly indicated on the display

##### Time functions

Real time clock with weekly timer program, 1x on and 1x off time per day, automatic switching from summer time to winter time

##### IP65 protection class

Suitable for industrial applications



	<b>Functions of the Planeck V controller model</b>
	<b>Room temperature setting</b> Room temperature setting via 2 external room temperature sensors with average determination
	<b>Temperature control</b> Temperature control via fan speed
	<b>Motor protection</b> Motor protection with temperature monitoring (thermal contact), analysis via the KaControl control panel
	<b>Speed control</b> Automatic continuously variable speed control depending on the room temperature
	<b>Maximum fan speed</b> Setting of the maximum fan speed via parameter settings
	<b>Minimum fan speed</b> Setting of the minimum fan speed via parameter settings
	<b>Pump control package</b> Control of a 230V pump with configurable pump follow-up time
	<b>Valve control package</b> Control of an ON/OFF 230V valve
	<b>Change over function</b> Switching from heating to cooling in a 2 pipe system via an isolated ext. contact
	<b>Room frost protection function</b> Monitoring of the room temperature in each system status up to a threshold of 8 °C
	<b>Power function</b> Power function (high-speed heating) adjustable on the control unit
	<b>Digital multifunctional output</b> Digital output configurable via parameters as <ul style="list-style-type: none"> <li>• Collective fault message</li> <li>• System status message</li> <li>• Heat requirement</li> <li>• Cooling requirement</li> </ul>
	<b>Digital multifunctional input</b> Multifunctional input configurable via parameters: <ul style="list-style-type: none"> <li>• External shut-off</li> <li>• Heating to cooling changeover</li> </ul>
	<b>Group control</b> Group control of up to 10 units per control unit
	<b>Economy/day mode</b> Switch from economy to day mode on the control unit
<b>ON/OFF</b> Switching on/off on the control unit	

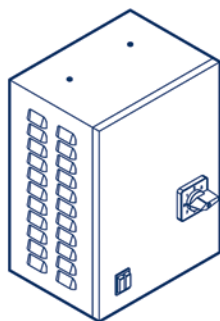
Control technology

# 1.64 Planeck

## Electromechanic control technology

### Switch and control accessories for recirculating air units

Control technology



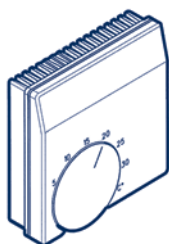
#### 5-stage single-phase controller 7.5 A, type 30783

This switch offers the option of switching single-phase motors through 5 stages in conjunction with the single-phase motor (motor configuration1).

- Voltage control via 5-stage transformer
- Equipped with all essential input and several neutral and earth lead terminals
- Connector options for room thermostat, time switch and on/off valve drive
- Automatic restart after power failure

**Housing:** Sheet steel, coated  
**Protection class:** IP20  
**Dimensions:** 260 x 340 x 150 mm (W x H x D)  
**Max. current:** 7,5 A

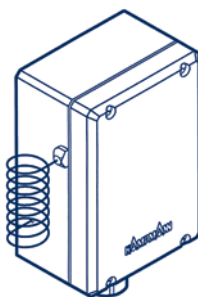
Refer to page 16 for max. number of Planeck that can be connected.



#### Room thermostat, type 30055

With thermal feedback, self-adjusting setting

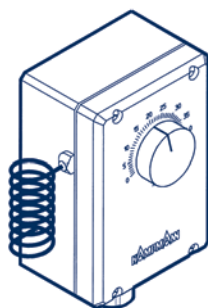
**Housing:** White plastic, white, wall mounted  
**Temperature setting range:** 5-30 °C  
**Switching difference:** approx. 0.6 K  
**Switching capacity:** 250 V ~ 50/60 Hz; 10 (4) A  
**Protection class:** IP 30



#### Industrial thermostat, type 30058

To avoid any unauthorised adjustment, the lid of the housing can only be removed with a screwdriver; for use in places with high humidity and high levels of soiling from dust

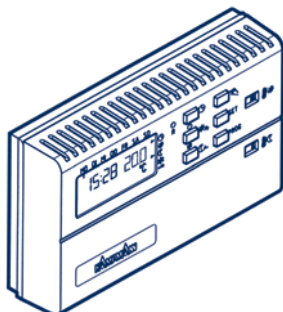
**Housing:** Shock-resistant plastic  
**Temperature setting range:** 0-40 °C  
**Switching difference:** approx. 0.75 K  
**Switching capacity:** 250 V ~; heating 16 (4) A, cooling 8 (4) A  
**Protection class:** IP 54  
**Dimensions W x H x D:** 85 x 145 x 57,5 mm



#### Industrial thermostat, type 30059

Nominal value room temperature setting by turning the knob from the outside

**Housing:** Shock-resistant plastic  
**Temperature setting range:** 0-40 °C  
**Switching difference:** approx. 0.75 K  
**Switching capacity:** 250 V ~; heating 16 (4) A, cooling 8 (4) A  
**Protection class:** IP 54  
**Dimensions:** 85 x 145 x 68 mm (W x H x D)

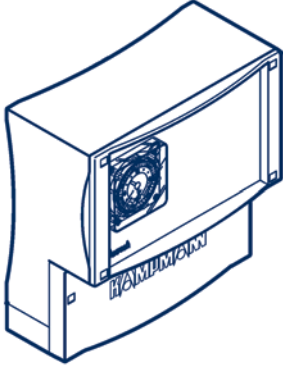
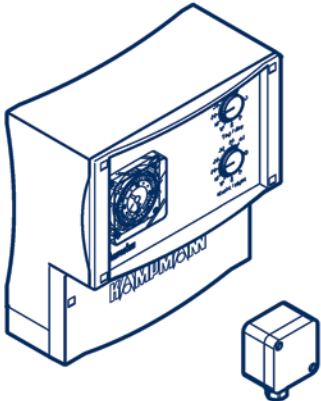
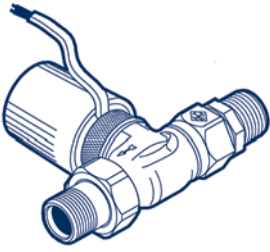
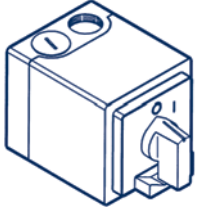


#### Clock thermostat, type 30056

Elegant combination of clock/room thermostat with electronic 2-stage controller and digital weekly clock timer, 15 min power reserve, party switch, switching status indicator and switch for operating mode, automatic/day/night/off

**Housing:** White plastic, wall mounted  
**Temperature setting range:** 5-40 °C  
**Night setback:** 2-10 K, adjustable  
**Differential gap:** 0.1-3 K  
**Protection class:** IP 20  
**Switching capacity:** 250 V ~; 10 (4) A  
**Dimensions:** 132 x 82 x 32 mm (W x H x D)

Switch and control accessories for recirculating air units

	<p><b>Timer, type 30054</b></p> <p>With day, night and weekly program, with clearly arranged program display and 12-hr day display. Silver-plated contacts. Can also be used in conjunction with two type 30055 room thermostats or industrial thermostats.</p> <ul style="list-style-type: none"> <li>• Clock timer with day, night and weekly program, with plug-in riders</li> <li>• Programmability every 5 min/30 min, shortest switching gap 20 min/2 hrs</li> <li>• Drive via quartz-controlled multiphase motor</li> <li>• Cable feed into a separately opening terminal box</li> <li>• Above average life cycle as a result of gold-plated silver contacts</li> </ul> <p><b>Housing:</b> Polystyrene  <b>Protection class:</b> IP20  <b>Power reserve:</b> 150 hrs  <b>Dimensions:</b> 262 x 277 x 153 mm (W x H x D)</p>
	<p><b>Timer with electronic room temperature controller and room temperature sensor, type 30076</b></p> <p>Electronic 2-stage remote setting of the room temperature from a central location</p> <ul style="list-style-type: none"> <li>• With two separately adjustable isolated potentiometers for day and night room temperature</li> <li>• Clock timer with 100 hours of power reserve, day, night, weekly program, with plug-in riders</li> <li>• With room temperature sensors in a separate housing</li> </ul> <p><b>Housing:</b> Polystyrene, wall mounted, white plastic, surface-mounted  <b>Temperature setting range:</b> 0–40 °C  <b>Switching capacity:</b> 230 V~; 8 (3) A  <b>Protection class for timer:</b> IP 20  <b>Protection class for sensor:</b> IP 54  <b>Timer dimensions:</b> 262 x 277 x 153 mm (W x H x D)</p>
	<p><b>Thermoelectric shut-off valve, type 100912</b></p> <ul style="list-style-type: none"> <li>• For use as 3/4" straight valve body</li> <li>• With thermoelectric 230 V actuator, 50 Hz, closed in a de-energised state</li> <li>• In conjunction with 5-stage single-phase controller, type 30783</li> </ul>
	<p><b>Repair switch, type 30140</b></p> <p>Facilitates the shutdown of individual fan heaters in a control group by disconnecting the voltage; the thermal contacts are quickly by-passed and then lagged at the motor end so that the other fan heaters in the group can continue to operate without any interruption. Protection class IP55; max. switching current 10 A</p>



# 1.64 Planeck

## Electromechanical control technology

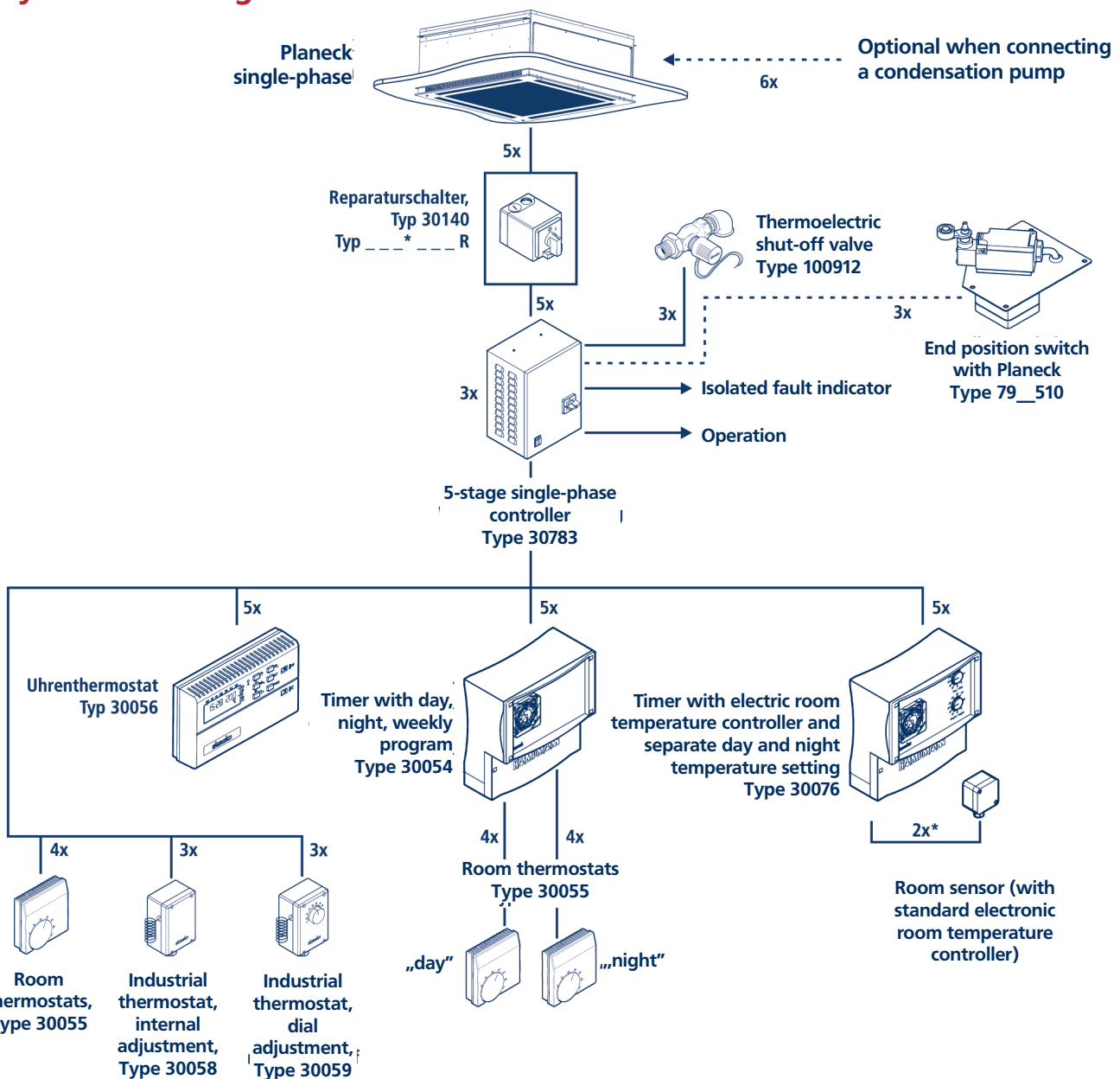
### Overview of switches and controls – recirculating air

#### Planeck Umluft Wechselstrom

Design of unit	Switching device	-stage single-phase controller
	Planeck type	type 30783 max. current 7.5 A
Recirculating air	79 __ 110	4
Mixed air	79 __ 410	4
Mixed air	79 __ 510	4

### Layout of cabling

Control technology

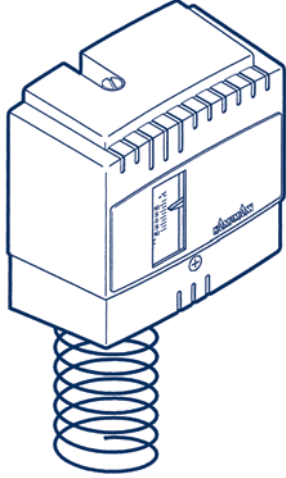
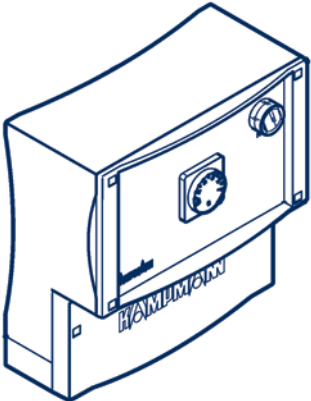
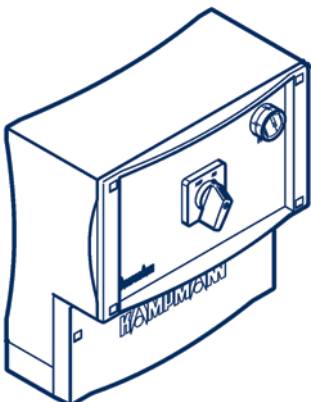


\* Sensor connection cable 1.5 mm<sup>2</sup>, z.B. J-Y(St)Y 4 x 2 x 0.8 mm, max. 100 m, lay away from high-voltage lines!

The number of connection leads required are indicated on the individual control components.

Supply: single-phase 230 V/50 Hz

**Network connection: the technical connection requirements of the energy supply company must be observed!**

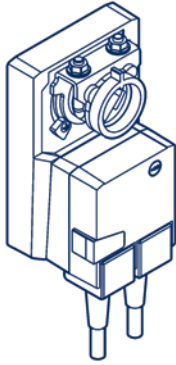
	<p><b>Frost protection thermostat, installed, type ___*___ F</b></p> <p>Every Planeck must be fitted with a frost protection thermostat in fresh air systems. This is fitted onto the air outlet side of the fan heater and set at approx. +7 °C (min. 5 °C). If the temperature drops below this, then the mixed air flap is closed in combination with the frost protection switch (type 30290, type 30091) or the supply air controller (type 30294 or type 30095) and the fan switches to fault mode. The fan must be restarted manually once a fault has been recorded.</p> <ul style="list-style-type: none"> <li>• With sensor self monitoring</li> <li>• With fan heater type ___*___ F the frost protection thermostat is factory-fitted</li> </ul> <p><b>Setting range:</b> -10 to + 12 °C  <b>Protection class:</b> IP40  <b>Capillary pipe length:</b> 6 m</p>
	<p><b>Frost protection control with position indicator 0–100 %, type 30290</b></p> <p>Closes the fresh air supply if there is a risk of frost and when the fan heater is turned off by the room temperature controller or by hand; if there is a risk of frost, the system will switch to fault mode. When in operation, the servomotor runs with the frost protection switch turned on.</p> <ul style="list-style-type: none"> <li>• For continuous operation 0–100% in conjunction with concealed motor type 30564 and frost protection thermostat type ___*___ F</li> <li>• Control light to indicate the risk of frost</li> <li>• Max. 10 concealed motors can be operated</li> <li>• A frost protection thermostat and a concealed motor are required for each fan heater.</li> </ul> <p><b>Housing:</b> Polystyrene, wall mounted  <b>Protection class:</b> IP40  <b>Dimensions:</b> 262 x 277 x 153 mm (W x H x D)</p>
	<p><b>Frost protection control with "on/off" switch, type 30091</b></p> <p>The functional design corresponds to type 30290. When in operation, the servomotor runs to the "Open" or "Close" position indicated on the frost protection switch.; for "Open"/"Close" mode in combination with servomotor type 30562 and frost protection thermostat type ___*___ F</p> <p><b>Housing:</b> Polystyrene, wall mounted  <b>Protection class:</b> IP54  <b>Dimensions:</b> 262 x 277 x 153 mm (W x H x D)</p>

# 1.64 Planeck

## Electromechanical control technology

### Switch and control accessories – Mixed air

Control technology

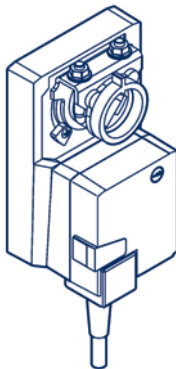


#### Servomotor for continuous flap adjustment, type 30564

For control via a potentiometer in frost protection switch type 30290 or supply air temperature controller type 30294;

- For continuous operation
- Safeguarded against overloading, requires no final position switch
- Remains in automatic mode when the flap or motor stop is reached
- To allow manual operation the drive can be released via a press button

**Torque:** 2 Nm  
**Feeding voltage:** 230 V/50 Hz  
**Control voltage:** 0–10 V  
**Operating time:** 35 sec  
**Protection class:** IP54

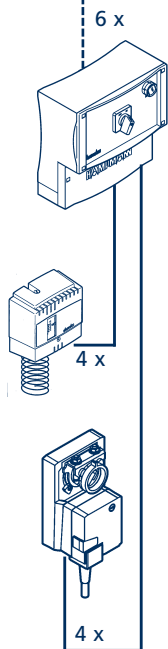


#### Servomotor for Open/Close flap position, type 30562

For control via frost protection switch type 30091 or supply air temperature controller type 30095;

- For Open/Close operation
- Safeguarded against overloading, requires no final position switch
- Remains in automatic mode when flap or motor stop is reached
- To allow manual operating the drive can be released via a press button

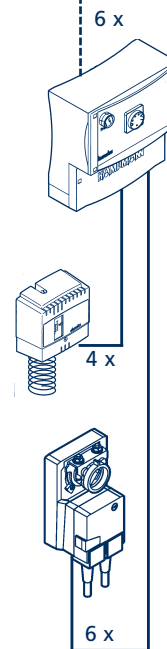
**Torque:** 2 Nm  
**Feeding voltage:** 230 V/50 Hz  
**Operating time:** 35 sec  
**Protection class:** IP54



Frost protection control with on-off switch, Type 30091

Frost protection thermostat, installed, Type \_\_\_\*\_\_\_F

Open/Close servomotor, Type 30562



Frost protection control with position indicator 0–100 %, Type 30290

Frost protection thermostat, installed, Type \_\_\_\*\_\_\_F

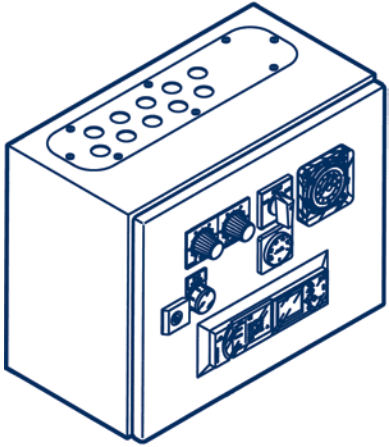
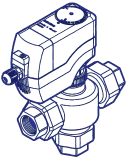
Servomotor, for continuous flap position, 0–100 %, Type 30564

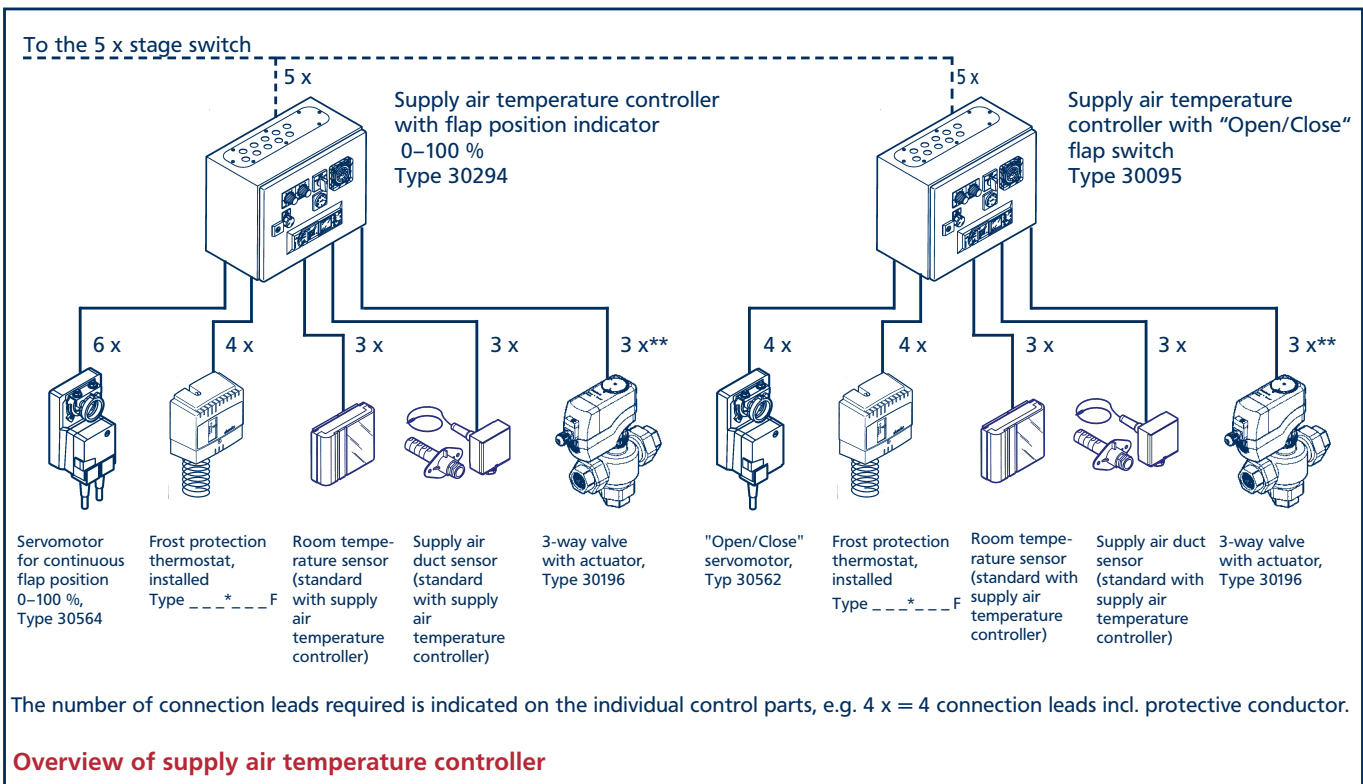
#### Overview of flap drives

The number of connection leads required is indicated on the individual controls.

\* Enter Planeck type

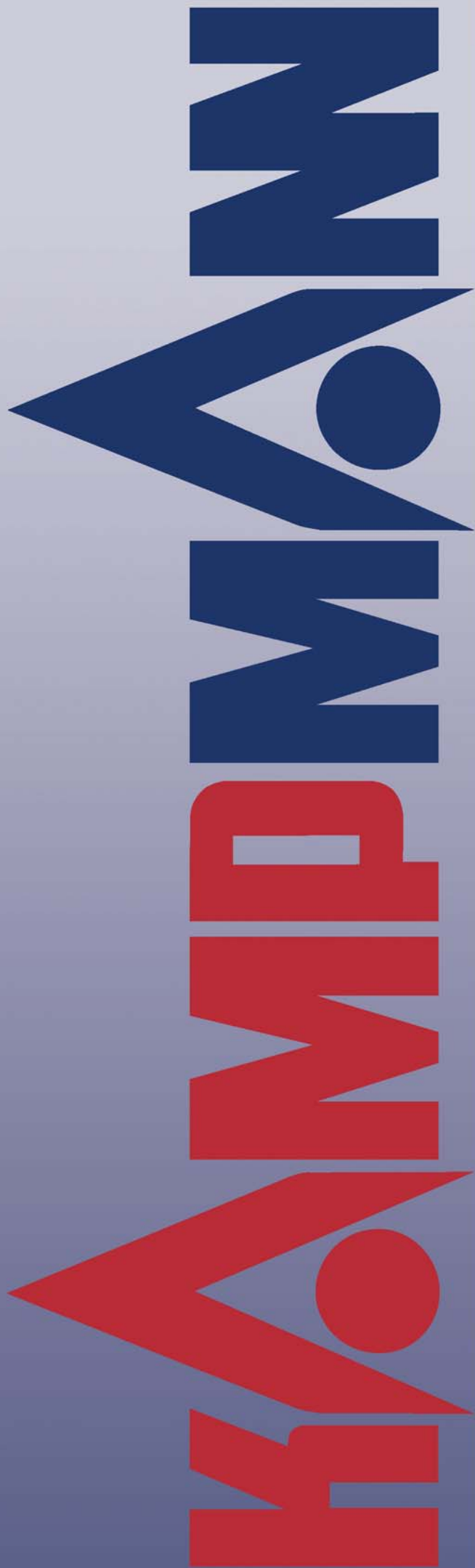


	<p><b>Supply air temperature controller</b></p> <p><b>Type 30294</b> with flap position indicator 0–100 %, for continuous servomotor type 30564  <b>Type 30095</b> with Open/Close flap switch, with Open/Close servomotor type 30562</p> <p>With the following built-in components or functions:</p> <ul style="list-style-type: none"> <li>• Continuous temperature controller, compares the temperature recorded on the room temperature sensor with the nominal value recorded on the day or night potentiometer and adjusts the 3-way valve according to the deviation</li> <li>• Integrated supply air controller in conjunction with a supply air sensor prevent the supply air temperature sinking below the pre-set value.</li> <li>• Frost protection switch to close the mixed air box when there is risk of frost and when the fan is off, as well as to open the 3-way valve when there is risk of frost</li> <li>• Connection options for: multi switching devices for supply and exhaust air (exhaust air time-controlled), alternating current model, frost protection thermostat, concealed flap motor, room temperature sensor, supply air duct sensor, drive for 3-way valve</li> </ul> <p><b>Switch cabinet</b> in a sturdy design: painted RAL 7035, door with locking handles; designed in accordance with VDE standard, terminal blocks wired to mounting plate are incorporated:</p> <ul style="list-style-type: none"> <li>• Timer with day/night-weekly program and power reserve</li> <li>• Day/night/clock switch (on "night" mode: mixed air flap position "supply air"),</li> <li>• Frost indicator light, unlock keys</li> <li>• Day and night temperature setpoint device</li> <li>• Controller accessories included: 1 room temperature sensor, 1 air duct sensor for the minimal lock-out of the supply air temperature</li> </ul>
	<p><b>3-way valve, type 30196</b></p> <p>3/4", 24 V AC/DC drive, 0–10 V control signal, to be used in conjunction with the supply air temperature controller, with 24 V drive with automatic zero option</p>



\*Enter Planeck type

\*\*shielded cable (e.g. B. J-Y (St) Y, 0.8 mm) to be laid away from high-voltage lines!



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