Controls and accessories

for Fun Coil Units

Built-in electronic controls
for Fan Coils with Asynchronous Motor
for Carisma CRC versions with casing

CB	**CB-T**	**CB-C**
CB-AUT	**CB-IAQ**	**CB-R-IAQ**
CB-AUT-IAQ		

Functions	Identification						
	CB	CB-T	CB-C	CB-AUT	CB-IAQ	CB-R-IAQ	CB-AUT-IAQ
ON-OFF switch	✔	✔	✔	✔	✔	✔	✔
ON-OFF switch for Crystall electrostatic filter or electric heater					✔	✔	✔
Manual 3 speed switch	✔	✔	✔	✔	✔	✔	✔
Manual/Automatic 3 speed selection				✔			✔
Summer/Winter switch		✔		✔		✔	✔
Remote centralized Summer/Winter switch or by an automatic change-over fitted on the water pipe			✔	✔		✔	✔
Automatic Summer/Winter switch with neutral zone for 4 pipe installation with 2 valves				✔			✔
Room thermostat for fan control (ON-OFF)		✔	✔	✔		✔	✔
Room thermostat for 1 valve control (2 pipe installation)		✔	✔	✔		✔	✔
Room thermostat for 2 valve control (4 pipe installation)		✔	✔	✔		✔	✔
Simultaneous thermostatic control of the valves and fan				✔			✔
Room thermostat for chilled water valve (SUMMER) and electric heater (WINTER) control (in winter only the electric heater is working)		✔	✔	✔		✔	✔
Room thermostat for fan and electric heater control (not for Crystall)				✔		✔	✔
Installation of electronic low temperature cut-out thermostat (TME)			✔			✔	
Installation of bimetallic low temperature cut-out thermostat (TMM)		✔					
Installation of electronic low temperature cut-out thermostat (NTC)				✔			✔

Controls for Fan Coils Units

Wall electronic controls
for Fan Coils with Asynchronous Motor
for all Carisma - SkyStar - Maestro Range

WM-AU

WM-T

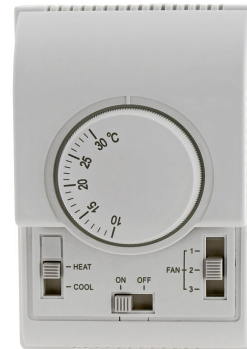WM-TQR

T-MB2

WM-503-AC-EC

TS2

WM-3V

CHARACTERISTICS

Functions	Identification						
	WM-3V	WM-T	WM-TQR	WM-AU	WM-503-AC-EC	T-MB2	TS2
ON-OFF switch	✔	✔	✔	✔	✔	✔	✔
ON-OFF switch for Crystall electrostatic filter or electric heater			✔	✔		✔	
Manual 3 speed switch	✔	✔	✔	✔	✔	✔	✔
Manual/Automatic 3 speed selection				✔	✔	✔	
Summer/Winter switch		✔	✔	✔	✔	✔	✔
Remote centralized Summer/Winter switch or by an automatic change-over fitted on the water pipe (*)			✔	✔		✔	
Automatic Summer/Winter switch with neutral zone for 4 pipe installation with 2 valves (*)				✔	✔	✔	
Room thermostat for fan control (ON-OFF)		✔	✔	✔	✔	✔	✔
Room thermostat for 1 valve control (2 pipe installation)		✔	✔	✔	✔	✔	✔
Room thermostat for 2 valve control (4 pipe installation)		✔	✔	✔	✔	✔	
Simultaneous thermostatic control of the valves and fan		✔	✔	✔	✔	✔	✔
Room thermostat for chilled water valve (SUMMER) and electric heater (WINTER) control (in winter only the electric heater is working)		✔	✔	✔	✔	✔	
Room thermostat for fan and electric heater control (not for Crystall)			✔	✔		✔	
Installation of bimetallic low temperature cut-out thermostat (TMM)		✔					
Installation of electronic low temperature cut-out thermostat (NTC) (*)			✔	✔	✔	✔	

NOTE: the WM-AU, T-MB2 and WM-503-AC-EC controls can be used only with dedicated power unit (see technical manuals and/or price list)
(*) for the controls that use the power unit, check on the technical manual if the feature is available.

Remote control RT03 and T-MB2 wall control

for all the Carisma and SkyStar Range with Asynchronous Motor and with EC Brushless Electronic Motor and Inverter Board

All Carisma and SkyStar units can be supplied with a microprocessor management and control system with **infra-red remote control** and liquid crystal display or with the **T-MB2 wall control** to be used with **MB board**.

RT03 remote control

T-MB2 wall control with LCD color display and WiFi

PSM-DI
multifunction control panel
for all the Carisma and SkyStar Range with Asynchronous Motor and with EC Brushless Electronic Motor and Inverter Board

Another option available for the serial communication between the units is the possibility to connect up to 60 Carisma and SkyStar units in series (the maximum length of the connection cable must not exceed 800 m) and manage them with just one **wall mounted intelligent PSM-DI controller**.

The wall mounted controller can be used to set the operating mode for each individual unit connected, display the operating conditions of each individual unit, and set the ON/OFF time sets for each day of the week.

If **more than 60 units need to be connected, two or more** wall mounted intelligent controllers must be used. Each wall control will manage only the connected units. Each unit must have a **MB board**.

PSM-DI control panel

T-DI
Touch screen multifunction control panel
Carisma and SkyStar Cassette fan coil ranges with AC asynchronous motor and with EC electronic motor and inverter board

The T-DI multifunction control panel lets supervise and control more units with MB or SIOS boards; the panel is equipped with a 7 inches touch screen display and a serie of graphical pages that allows an easy reading of the data sent by the fan coils and the management of up to 60 units (max. 60 units: SIOS + MB).

With the multifunction control panel T-DI it is also possible to control the units remotely with the specific **Sabiana Cloud App for Android and iOS**.

The Sabiana Cloud APP is simple to use and lets have complete control of all the connected units.

T-DI Touch screen multifunction control panel

SabWeb
Web gateway for Sabiana Cloud
Carisma and SkyStar Cassette fan coil ranges with AC asynchronous motor and with EC electronic motor and inverter board

With the Web gateway for "Sabiana Cloud" it is possible to control remotely up to 60 units, equipped with MB or SIOS boards (max. 60 units: SIOS + MB), with the specific APP for Android and iOS.

The "Sabiana Cloud" APP is simple to use and lets have complete control of all the connected units.

Web gateway for Sabiana Cloud

Sabianet
management system for a network of fan coils
for all the Carisma and SkyStar Range

Sabianet is a centralised control system for networks of MB fan coils, based on software that runs **on Linux operating system** (the program is provided pre-installed on a PC). The Sabianet software **offers a practical and economical solution** for managing the fan coils, with the simple click of the mouse.

The main characteristics include simplicity of use, an extremely complete and functional weekly program, and the possibility to access the historical operating data for each individual unit connected.

pc
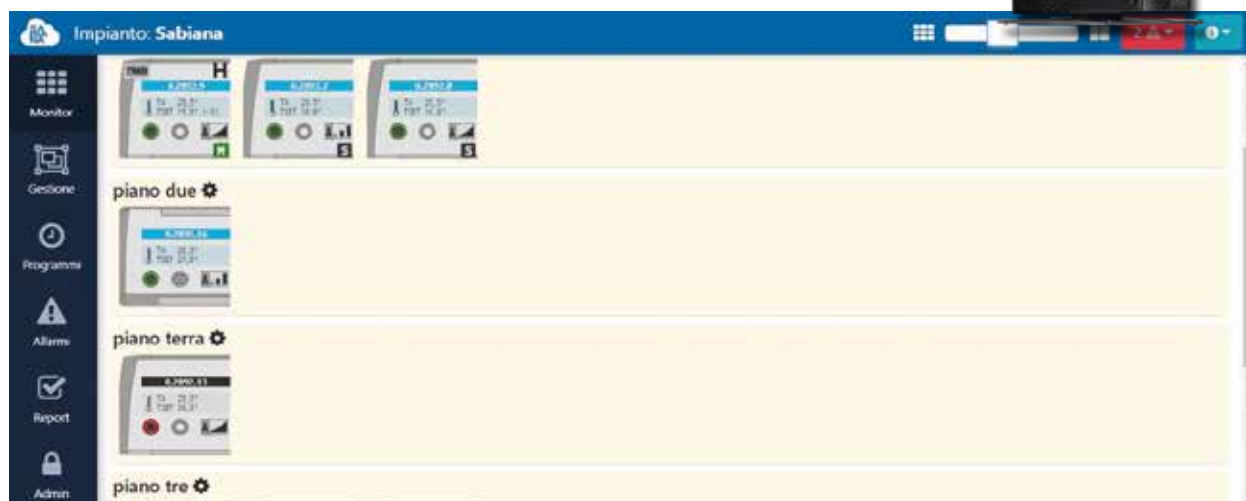
Sabianet screenshot

MB board for all the Carisma and SkyStar Range

The MB boards, besides being used with **T-MB2** controls, with infra-red remote control units, with **PSM-DI** and with the units managed with **Sabianet** software, can also be interfaced with BSM supervisory systems that use **Modbus** communication protocol.
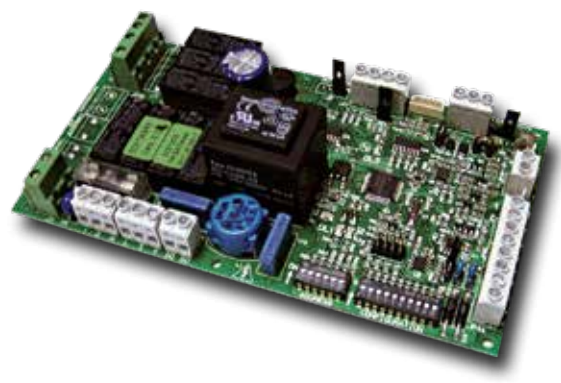
KNX bus system

The KNX bus system is a building automation standard for controlling, managing and monitoring a wide range of products for:

- heating, cooling, ventilation
- lighting
- alarm systems
- audio and video systems
- electricity and gas

Since 2016, Sabiana is a certified member of the KNX association and the certified products can be added to this system in compliance with the tests carried out at KNX laboratories.

KNX devices

The Sabiana WM-KNX room thermostat controls and adjusts the temperature of a room or area in a building. In combination with one or several UP-KNX power units, the thermostat is able to control the operation of terminal units such as fan coils. The appliance consists of an LCD display with adjustable backlight and a sensor for measuring the room temperature.

WM-KNX is suitable for installation in a recessed wall box.

Recessed thermostat
WM-KNX
Code 9066679

with rectangular plate

With square plate

Power unit
UP-KNX
Code 9066680

Electronic controls
for Fan Coil Units with EC Brushless Electronic Motor and Inverter Board

CB-T-ECM
for CRC-ECM, CRT-ECM and CRR-ECM versions

CB-T-ECM-IAQ
for CRC-ECM and CRR-ECM version

WM-AU

T-MB2

WM-503-AC-EC

WM-S-ECM

for all the Carisma ECM and SkyStar ECM Range	
RT03 infra-red remote control	
T-MB2 wall control with LCD color display and WiFi	
PSM-DI multifunction control	for the characteristics, see previous pages
Sabianet management system for a network of fan coils	
Controls for KNX systems	

Functions	Identification					
	built-in		wall			
	CB-T-ECM	CB-T-ECM-IAQ	WM-AU	T-MB2	WM-503-AC-EC	WM-S-ECM
ON-OFF switch	✔	✔	✔	✔	✔	✔
Room thermostat for chilled water valve (SUMMER) and electric heater (WINTER) control (in winter only the electric heater is working)		✔	✔	✔		
Manual 3 speed switch or automatic continuous speed control	✔	✔	✔	✔	✔	✔
Summer/Winter switch	✔	✔	✔	✔	✔	✔
Continuous speed control based on the difference between ambient temperature and Set temperature (speed switch in Auto position)	✔	✔	✔	✔	✔	✔
Remote centralized Summer/Winter switch or by an automatic change-over fitted on the water pipe (*)			✔	✔		
Room thermostat for fan control (ON-OFF)	✔	✔	✔	✔	✔	✔
Room thermostat for 1 valve control (2 pipe installation)	✔	✔	✔	✔	✔	✔
Room thermostat for 2 valve control (4 pipe installation)	✔	✔	✔	✔	✔	✔
Simultaneous thermostatic control of the valves and fan	✔	✔	✔	✔	✔	✔
Room thermostat for fan and electric heater control (not for Crystall)		✔	✔	✔		
Installation of electronic low temperature cut-out thermostat (NTC) (*)	✔	✔	✔	✔	✔	✔

Controls for Fan Coils Units

NOTE: the WM-AU, T-MB2 and WM-503-AC-EC controls can be used only with dedicated power unit (see technical manuals and/or price list)

(*) for the controls that use the power unit, check on the technical manual if the feature is available.

Accessories
for Carisma range
CRC/CRC-ECM - CRT-ECM - CRR-ECM - CRSL/CRSL-ECM - CFF/CFF-ECM - CCN/CCN-ECM

All Sabiana Carisma fan coils, whether with **Asynchronous Motor** or with **Electronic Motor and Inverter**, can be equipped with a **very large series of Accessories**, such as, to name only the most common, numerous types of regulating valves, sturdy support feet, rear cover panel for installing against glass, additional electrical resistances, auxiliary condensation drain pump, outdoor air intake louvre, inlet and outlet ducts and grills for ducted installations.

Accessories		Identification					
		CRC CRC-ECM	CRT-ECM	CRR-ECM	CFF CFF-ECM	CRSL CRSL-ECM	CCN CCN-ECM
Main coil 3 way valve	**VBP**	✔	✔	✔		✔	✔
Additional coil 3 way valve	**VBA**	✔	✔			✔	✔
Simplified kit for 3 way valve for main and additional coil (concealed model only)	**VS**	✔	✔			✔	✔
3 way double valve kit for 4 tube installation and single coil	**V3M4X2 V3S4X2**	✔	✔			✔	✔
2 way valve for main and additional coil	**V2**	✔	✔	✔	✔	✔	✔
3 way valve for main and additional coil	**V3**	✔	✔		✔	✔	✔
Balancing valves independent from the system pressure for main and additional coil	**V20 VBP V20 VBA**	✔	✔			✔	✔
Electric heater (not available with Crystall filter)	**BEL**	✔	✔			✔	✔
Extension condensate collection tray to cover valve assembly (for vertical units)	**BSV**	(MV-MVB-IV)	(MV-MVB-IV)	✔		✔	
Extension condensate collection tray to cover valve assembly (for MO horizontal units)	**BSO**	(MO)	(MO)				✔
Extension condensate collection tray to cover valve assembly (for IO horizontal units)	**BSI-C**	(IO)	(IO)			✔	
Horizontal condensate collection tray kit (for IV concealed version)	**BSI-W**				(CFF-IV)		
Condensate pump (for vertical units)	**DRPV-C**	(MV-MVB-IV)	(MV-MVB-IV)			✔	
Condensate pump (for horizontal units)	**DRPO-C**	(MO)	(MO)				
Condensate pump (for horizontal units)	**DRPI-C**	(IO)	(IO)			✔	
Plastic condensate drain pipe with fast connection	**SCR**	✔	✔			✔	✔
Feet	**PAP**	✔	✔	✔	✔		
Aluminium low intake grid	**GAP**	✔	✔				
Frontal intake kit	**KAF**	(IV-IO)	(IV-IO)			✔	
Rear closing panel (for vertical units)	**PCV**	(MV-MVB)	(MV-MVB)				
Bottom closing panel (for horizontal units)	**PCO**	(MO)	(MO)				
Fresh air mixing damper (mounted on the unit)	**SAEM**	(MV)	(MV)				
Fresh air mixing damper (not mounted)	**SAE**	(IV-IO)	(IV-IO)				
Belimo motor (not available with ECM range)	**BESAE**	(MV-IV-IO)					
Straight inlet flange	**FRD**	✔	✔			✔	
90° inlet flange	**FR 90**	✔				✔	
Air inlet grid (to be used with FR 90 90° inlet flange)	**GRAP**	✔				✔	
Air inlet grid (to be used with FRD straight inlet flange)	**GRAG**	✔	✔			✔	
Straight outlet flange	**FMD**	✔	✔			✔	
90° outlet flange	**FM 90**	✔				✔	
Air outlet grid	**BMA**	✔	✔			✔	
Air inlet spigot plenum	**PRC**	✔				✔	
Spigot diffuser	**PMC**	✔				✔	
Air inlet grid with filter (to be fitted to the FR 90 90° inlet flange)	**GRAFP**	✔					
Air inlet grid with filter (to be fitted to the FRD straight inlet flange)	**GRAFG**	✔					
Condensate drain pump	**PCC**						✔
Fresh air connection	**FRC**	✔					✔
Hotel fan kit (frontal return and supply)	**CHK**	(IO)					
Silencer plenum	**BXS**	IV-IO				✔	

Accessories for Fan Coils Units

VBP **Main coil 3 way valve**

Control valve kit:
3 way valve, ON-OFF,
with electric motor and mounting kit
with micrometric lockshield valve.
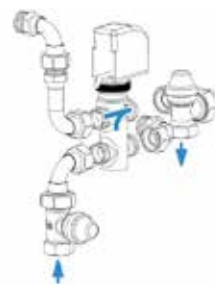
VBA **Additional coil 3 way valve**

Control valve kit:
3 way valve, ON-OFF,
with electric motor and mounting kit
with micrometric lockshield valve

VS **Simplified kit
for 3 way valve
for main and additional coil**
(concealed model only)

3 way valve, (ON-OFF)
with electric motor and mounting kit.
Valve with flat connection without micrometric
lockshield valve..
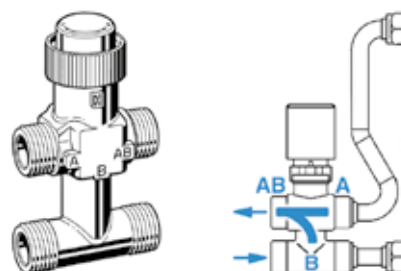
V20VBP **Valve kit with pressure independent
(not control valves for main and additional
mounted) coil**
Kits are available with flow ranges:
- 30 - 200 l/h
- 100 - 575 l/h
- 220 - 1330 l/h
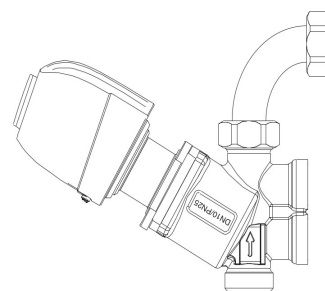
V2 **2 way valve
for main and additional coil**

Control valve kit:
2 way valve, ON-OFF,
with electric motor and mounting kit
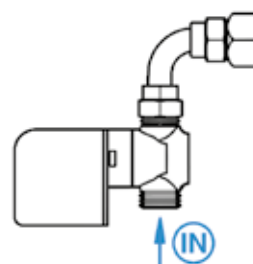
V20VBP   **Balancing valves independent from the system pressure for main coil (Oventrop)**

V20VBA   **Balancing valves independent from the system pressure for additional coil (Oventrop)**

V2DFBP   **Balancing valves independent from the system pressure for main coil (Danfoss)**

V2DFBA   **Balancing valves independent from the system pressure for additional coil (Danfoss)**

BEL   **Electric heater**
(not available with Crystall filter)

1 PHASE 230V
Electric heater with integral: safety thermostat
and relay control..
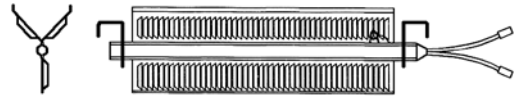
BSV   **Extension
condensate collection tray to cover valve
assembly**
(for vertical units)
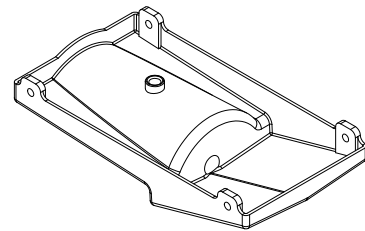
BSO   **Extension
condensate collection tray to cover valve
assembly**
(for MO horizontal units)
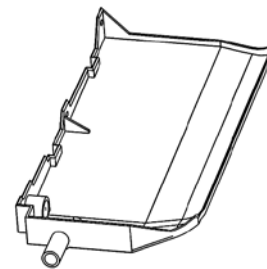
BSI-C   **Extension
condensate collection tray to cover valve
assembly**
(for IO horizontal units)

Accessories for Fan Coils Units
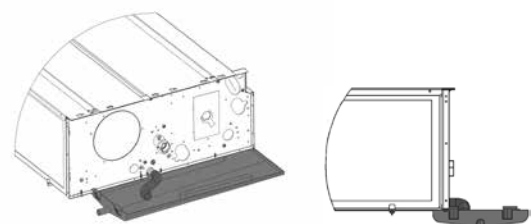
DRPV-C **Condensate pump**
(for vertical units)

DRPO-C **Condensate pump**
DRPI-C (for horizontal units)

DRPO-C   **DRPI-C**

SCR **Plastic condensate drain pipe with fast connection**
Allows correct condensate drain.
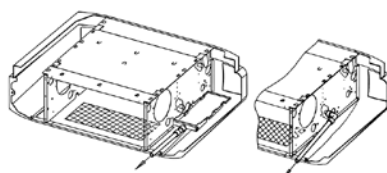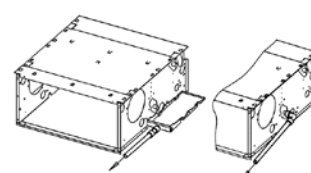
CRC / CRC- ECM   **CRSL / CRSL- ECM**
CRT-ECM   **CCN / CCN-ECM**

PAP **Feet**
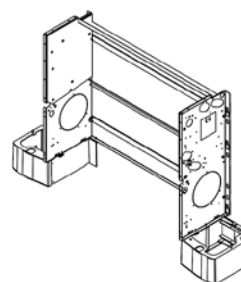
GAP **Aluminium low intake grid**

To be installed with PAP feet.
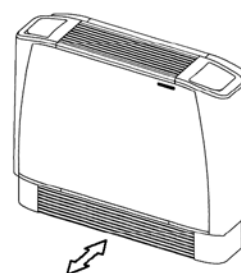
KAF	**Frontal intake kit**

Bottom closing panel and filter sliding guide.
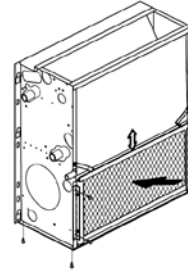
PCV	**Rear closing panel** (for vertical units)
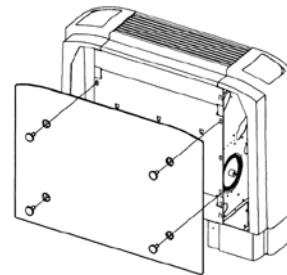
PCO	**Bottom closing panel** (for horizontal units)
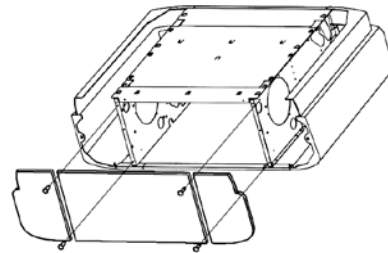
SAEM	**Fresh air mixing damper**

Mounted on the unit with feet and intake grid included.
Can be motorized on request.
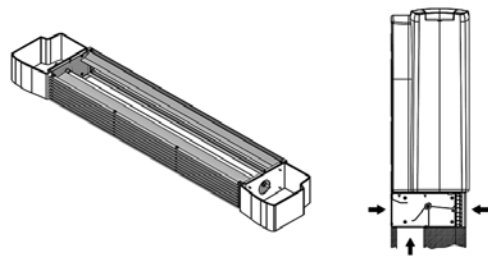
SAE	**Fresh air mixing damper**

Not mounted.
Can be motorized on request.

Accessories for Fan Coils Units
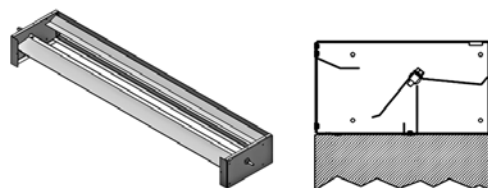
BESAE   **Belimo motor**
(not available with ECM range)

Fitted on the unit for motorized working of the damper.
(available with "IAQ" control only)
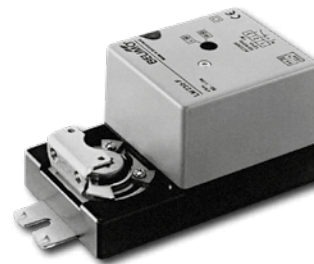
FRD   **Straight inlet flange**

Can be used together with GRAG air inlet grid.
Made of galvanized steel.

FR 90   **90° inlet flange**

Can be used together with GRAP air inlet grid.
Made of galvanized steel.

GRAP   **Air inlet grid**

To be used with FR 90 90° inlet flange.
Made of anodized aluminium.
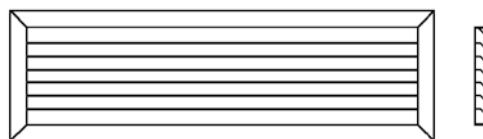
GRAG   **Air inlet grid**

To be used with FRD straight inlet flange.
Made of anodized aluminium..
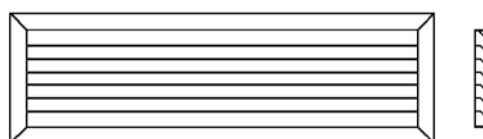
FMD   **Straight outlet flange**

Made of galvanized steel.

FM 90   **90° outlet flange**

Made of galvanized steel insulated with
polyethylene lining..

BMA   **Air outlet grid**

Double louvre grid to be fitted to the duct, to
the FMD straight outlet flange or to the FM 90
90° outlet flange.
Made of anodized aluminium.
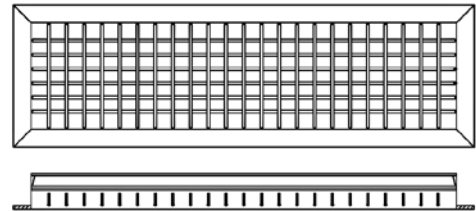
PRC   **Air inlet spigot plenum**

Made of galvanized steel insulated with
polyethylene lining.

All the plenums are supplied
with spigots
for the connection of flexible ducts..

PMC   **Spigot diffuser**

Made of galvanized steel insulated with
polyethylene lininge.

All the plenums are supplied
with spigots
for the connection of flexible ducts.

Accessories for Fan Coils Units

GRAFP **Air inlet grid with filter**

To be fitted to the FR 90 90° inlet flange.
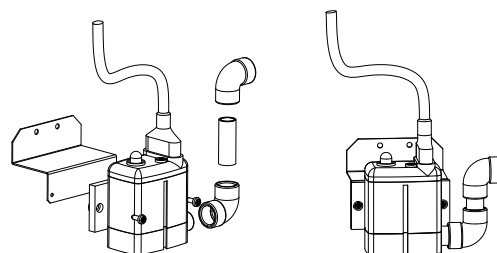Made of anodized aluminium.
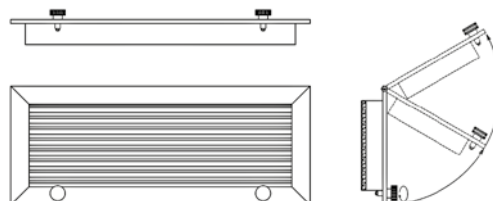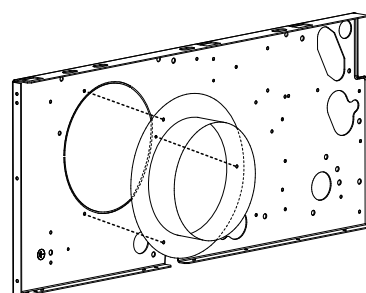
GRAFG **Air inlet grid with filter**

To be fitted to the FRD straight inlet flange.
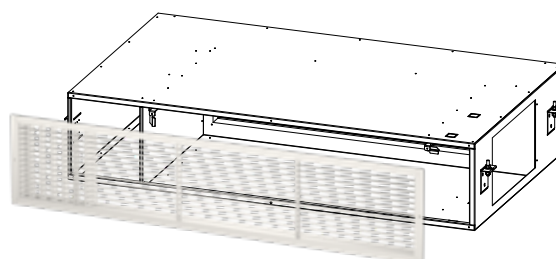Made of anodized aluminium.
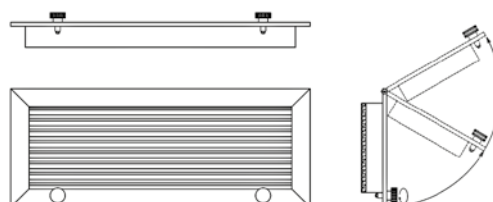
PCC **Condensate drain pump**

FRC **Fresh air connection**

CHK **Hotel fan kit**
(frontal return and supply)

For concealed installation.

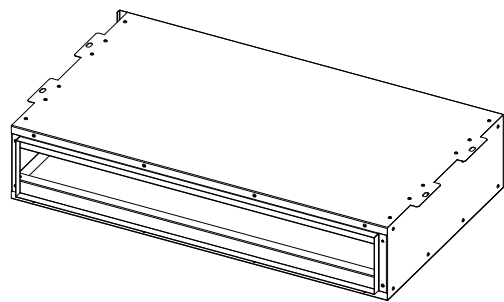**BXS**   **Silencer plenum**
(for Carisma CRSL / CRSL-ECM and
CRC / CRC-ECM, IV-IO models only)

Made of galvanised steel metal sheet, lined
internally with a reinforced glass wool mat on
both sides with a black glass coating.

Accessories for Fan Coils Units

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