



Fan Coil Units Fan Coil Control Range

TECHNICAL MANUAL



CB-AUT



WM-AU



PSM-DI



SabWeb



Sabianet



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For technical details see installation, use and maintenance manual.

The descriptions and illustrations provided in this publication are not binding: Sabiana reserves the right, whilst maintaining the essential characteristics of the types described and illustrated, to make, at any time, without the requirement to promptly update this piece of literature, any changes that it considers useful for the purpose of improvement or for any other manufacturing or commercial requirements.

INTRODUCTION

Electronic controls to combine with the following fan coil range with AC asynchronous motor and with EC electronic motor and inverter board.



Carisma Fan Coil Units

CRC range with AC asynchronous motor and centrifugal fan

CRC-ECM range with EC electronic motor and centrifugal fan

CRT-ECM range with AC asynchronous motor and tangential fan

CRR-ECM range with AC asynchronous motor and tangential fan



Carisma fan coil unit MVI serie with AC asynchronous motor and centrifugal fan



Carisma Fly Fan Coil Units

CVP range with AC asynchronous motor

CVP-ECM range with EC electronic motor



Carisma High Pressure Fan Coil Units

CRSL range with AC asynchronous motor and centrifugal fan

CRSL-ECM range with EC electronic motor and centrifugal fan



Cassette SkyStar Fan Coil Units

SK range with AC asynchronous motor

SK-ECM range with EC electronic motor

SK-Jumbo-ECM range with EC electronic motor



Cassette Carisma Coanda one way Fan Coil Units

CCN / CCN-H range with AC asynchronous motor and centrifugal fan

CCN-ECM / CCN-ECM-H range with EC electronic motor and centrifugal fan

CONTROLS FOR FAN COIL WITH AC ASYNCHRONOUS MOTOR

For Carisma and SkyStar series the room temperature can be controlled with electronic room thermostats fitted on the unit with different solutions according to every ambient conditions; the control range includes manual or automatic speed switch control, thermostatic control of the water valves or of the electric heater, manual, automatic or centralized summer/winter switch.

With the use of the power unit and of the speed switches it is also possible to control more units with the same thermostat.

Here below there is the description of all controls for the AC asynchronous motor versions.




Overview of electronic controls fitted on the unit*


The Fan coil controls fitted on the unit are only suitable for Sabiana units. Standard reference: EN 60335-2-40.

ID		CB	CB-T	CB-C	CB-AUT	CB-IAQ	CB-R-IAQ	CB-AUT-IAQ
Code		9066300	9066301	9066302	9066318	9066305	9066306	9066302
To combine with	Carisma CRC	●	●	●	●	●	●	●
ON-OFF switch		✓	✓	✓	✓	✓	✓	✓
Electric heater or IAQ electrostatic filter activation button						✓	✓	✓
Manual 3 speed switch without thermostatic control		✓				✓		
Manual 3 speed switch			✓	✓	✓		✓	✓
Automatic 3 speed progressive push button					✓			✓
Electronic room thermostat for fan control (ON-OFF)			✓	✓	✓		✓	✓
Electronic room thermostat for one water valve control (2 pipe system)			✓	✓	✓		✓	✓
Electronic room thermostat for two water valve control (4 pipe system)			✓	✓	✓		✓	✓
Simultaneous thermostatic control of the valve and fan					✓			✓
Manual Summer/Winter switch			✓		✓		✓	✓
Summer/winter cycle with a centralized and remote switch or with an automatic change-over fitted on the water pipe (for 2 pipe system)				✓	✓		✓	✓
Thermostatic control of the chilled water valve (ON-OFF) and the electric heater (BEL)			✓	✓	✓		✓	✓
Automatic Summer/Winter switch and continuous chilled and hot water supply, it allows the automatic summer winter change-over in accordance to the room temperature -1°C = Winter, +1°C = Summer, Neutral Zone 2°C (4 pipe installations with 2 valve)					✓			✓
Thermostatic control of the water valves (ON-OFF) and the electric heater managed as main heating element or as an integration element (4 pipe system + electric heater) - NO IAQ					✓		✓	✓
Possibility to use a low temperature cut-out thermostat (optional)		✓	✓	✓	✓	✓	✓	✓
Installation manual codes		4050875	4050876	4050877	4050857	4050880	4050881	4050898
Control description at page		p. 6	p. 6	p. 6	p. 7	p. 8	p. 8	p. 8




*To be used with Carisma MV-MO-MVB units only.

Electronic controls fitted on the unit for standard versions

ID	Code	
CB	9066300	
		
<ul style="list-style-type: none"> • Manual 3 speed switch, without thermostatic control. • It allows to control the low temperature cut-out thermostat TMM. 		
To combine with:	CRC	
ID	Code	
CB-T	9066301	
		
<ul style="list-style-type: none"> • Manual 3 speed switch. • Manual Summer/Winter switch. • Electronic room thermostat for fan control (ON-OFF). • Electronic room thermostat for valve control (ON-OFF) (the fan keeps working). • It allows to control the low temperature cut-out thermostat TMM. • It allows to control the chilled water valve (ON-OFF) and the electric heater BEL only in case that hot water is not used in winter (otherwise please use CB-R-IAQ control with on/off switch for the electric heater). • Presence of a LED signal when the thermostat is on. 		
Control power absorption: 1,5 VA		
To combine with:	CRC	
ID	Code	
CB-C	9066302	
		
<ul style="list-style-type: none"> • Manual 3 speed switch. • Manual, automatic or centralized Summer/Winter switch. • Electronic room thermostat for fan control (ON-OFF). • Electronic room thermostat for valve control (ON-OFF) (the fan keeps working). • It allows to control the low temperature cut-out thermostat TME. • It allows to control the chilled water valve (ON-OFF) and the electric heater BEL only in case that hot water is not used in winter (otherwise please use CB-R-IAQ control with on/off switch for the electric heater). • Presence of a LED signal when the thermostat is on. 		
Control power absorption: 1,5 VA		
To combine with:	CRC	

ID	Code	
CB-AUT	9066318	
		<ul style="list-style-type: none"> • Manual/automatic 3 speed switch. • Manual, automatic or centralized Summer/Winter switch. • Automatic speed switch: on Auto Mode there is the automatic speed selection in accordance to the difference between room temperature and setpoint. When the setpoint is reached the fan goes on OFF. • Electronic room thermostat for valve control (ON-OFF) (the fan keeps working). • Simultaneous thermostatic control of the valves and fan. • It allows to control the low temperature cut-out thermostat NTC. • It allows to control the chilled water valve (ON-OFF) and the electric heater BEL only in case that hot water is not used in winter (otherwise please use CB-AUT-IAQ control with on/off switch for the electric heater). • Presence of a LED signal when the thermostat is on. <p><i>N.B.: with 4 pipe installations and continuous chilled and hot water supply, it allows the automatic summer winter change-over in accordance to the room temperature (-1°C = Winter, +1°C = Summer, Neutral Zone 2°C).</i></p> <p>Control power absorption: 1,5 VA</p>
To combine with:	CRC	

Electronic controls fitted on the unit with Crystall filter or with electric heater

ID	Code	
CB-IAQ	9066305	
 <ul style="list-style-type: none"> • Manual 3 speed switch. • IAQ filter activation button. • Without thermostatic control. • It allows to control the low temperature cut-out thermostat TMM. 		
To combine with:		CRC
ID	Code	
CB-R-IAQ	9066306	
 <ul style="list-style-type: none"> • Manual 3 speed switch. • Manual, automatic or centralized Summer/Winter switch. • Electric heater/IAQ filter activation button. • Electronic room thermostat for fan control (ON-OFF). • Electronic room thermostat for valve control (ON-OFF) (the fan keeps working). • It allows to control the low temperature cut-out thermostat TME. • Possibility of control of thermostatic valves and a heating group with electric heater BEL by using the electronic filter activation switch (only for units without electronic filter). • Presence of a LED signal when the thermostat is on. <p>Control power absorption: 1,5 VA</p>		
To combine with:		CRC
ID	Code	
CB-AUT-IAQ	9066322	
 <ul style="list-style-type: none"> • Manual/automatic 3 speed switch. • Manual, automatic or centralized Summer/Winter switch. • Electric heater/IAQ filter activation button. • Automatic speed switch: on Auto Mode there is the automatic speed selection in accordance to the difference between room temperature and setpoint. When the setpoint is reached the fan goes on OFF. • Electronic room thermostat for valve control (ON-OFF) (the fan keeps working). • It allows to control the low temperature cut-out thermostat NTC. • It allows to control the water valves (ON-OFF) and the electric heater managed as main heating element or as an integration element. • Presence of a LED signal when the thermostat is on. <p><i>N.B.: with 4 pipe installations and continuous chilled and hot water supply, it allows the automatic summer winter change-over in accordance to the room temperature (-1°C = Winter, +1°C = Summer, Neutral Zone 2°C).</i></p> <p>Control power absorption: 1,5 VA</p>		
To combine with:		CRC

Overview of electronic wall controls

The wall controls are in compliance with the standard reference CEI EN 60730.

ID		WM-3V	WM-T	WM-TQR	WM-AU	T-MB	WM-503-AC-EC	T2T
Code		9066642	9066630	9066631	9066632	9066331E	9066686	9066174
To combine with	Carisma CRC CRSL	●	●	●	●	●	●	●
	CassetteCarismaCoandaCCN	●	●	●	●	●	●	●
	Cassette SkyStar SK	●	●	●	●	●	●	●
	Carisma Fly CVP	●	●	●			●	●
Carisma MVI					●	●	●	
ON-OFF switch		✓	✓	✓	✓	✓	✓	✓
Electric heater or IAQ electrostatic filter activation button				✓	✓	✓		
Manual 3 speed switch without thermostatic control		✓						
Manual 3 speed switch			✓	✓	✓	✓	✓	✓
Automatic 3 speed progressive push button					✓	✓	✓	
Electronic room thermostat for fan control (ON-OFF)			✓	✓	✓	✓	✓	✓
Electronic room thermostat for one water valve control (2 pipe system)			✓	✓	✓	✓	✓	✓
Electronic room thermostat for two water valve control (4 pipe system)			✓	✓	✓	✓	✓	
Simultaneous thermostatic control of the valve and fan			✓	✓	✓	✓	✓	✓
Manual Summer/Winter switch			✓	✓	✓	✓	✓	✓
Summer/winter cycle with a centralized and remote switch or with an automatic change-over fitted on the water pipe (for 2 pipe system)				✓	✓	✓	✓	
Thermostatic control of the chilled water valve (ON-OFF) and the electric heater (BEL)			✓	✓	✓	✓	✓	
Automatic Summer/Winter switch and continuous chilled and hot water supply, it allows the automatic summer winter change-over in accordance to the room temperature -1°C = Winter, +1°C = Summer, Neutral Zone 2°C (4 pipe installations with 2 valve)					✓	✓	✓	
Thermostatic control of the water valves (ON-OFF) and the electric heater managed as main heating element or as an integration element (4 pipe system + electric heater) - NO IAQ				✓	✓	✓		
Button lock controller						✓	✓	
Energy saving function				✓	✓			
Possibility to use a low temperature cut-out thermostat (optional)		✓	✓	✓	✓	✓	✓	
Installation manual codes		-	4050961	4050962	4050963A/B	4050963A/B	-	-
Control description at page		p. 10	p. 10	p. 10	p. 11	p. 11	p. 12	p. 12

Wall electronic controls

ID	Code	
WM-3V	9066642	<ul style="list-style-type: none"> Manual 3 speed switch, without thermostatic control. It does not control the valves. It allows to control the low temperature cut-out thermostat TMM. <p>Dimensions: 75x75x30 mm</p>
To combine with:		CRC
		CRSL
		SK
		CCN
		CVP
		MVI

ID	Code	
WM-T	9066630	<ul style="list-style-type: none"> ON/OFF switch Manual 3 speed switch. Manual Summer/Winter switch. Electronic room thermostat for fan control (ON-OFF). Electronic room thermostat for valve control (ON-OFF) (the fan keeps working). It allows to control the low temperature cut-out thermostat TMM. It allows to control the chilled water valve (ON-OFF) and the electric heater BEL only in case that hot water is not used in winter (otherwise please use WM-TQR control with on/off switch for the electric heater). Presence of a LED signal when the thermostat is on. <p>Control power absorption: 0,25 VA Dimensions: 135x86x31 mm</p>
To combine with:		CRC
		CRSL
		SK
		CCN
		CVP
		MVI

ID	Code	
WM-TQR	9066631	<ul style="list-style-type: none"> ON/OFF switch Manual 3 speed switch. Manual, automatic or centralized Summer/Winter switch. Electric heater/IAQ filter activation button. Electronic room thermostat for fan control (ON-OFF). Electronic room thermostat for valve control (ON-OFF) (the fan keeps working). Simultaneous thermostatic control of the valves and fan. It allows to control the low temperature cut-out thermostat NTC. It allows to control the water valves (ON-OFF) and the electric heater managed as main heating element or as an integration element. Energy saving function. Presence of a LED signal when the thermostat is on. <p>Control power absorption: 1 VA Dimensions: 135x86x31 mm</p>
To combine with:		CRC
		CRSL
		SK
		CCN
		CVP
		MVI

ID	Code
WM-AU	9066632



The control must always be connected with UPM-AU power unit (fitted on the unit) or with UP-AU power unit (with separate packaging).

- ON/OFF switch
- Manual/automatic 3 speed switch.
- Manual, automatic or centralized Summer/Winter switch.
- Summer/Winter/Fan/Auto mode push button.
- Electric heater/IAQ filter activation button.
- Electronic room thermostat for fan and water valves control (ON-OFF).
- Simultaneous thermostatic control of the valves and fan.
- It allows to use the low temperature cut-out thermostat NTC mounted on the power unit.
- It allows to control the water valves (ON-OFF) and the electric heater managed as main heating element or as an integration element.
- Energy saving function.
- Presence of a LED signal when the thermostat is on.

N.B.: with 4 pipe installations and continuous chilled and hot water supply, it allows the automatic summer winter change-over in accordance to the room temperature (-1°C = Winter, +1°C = Summer, Neutral Zone 2°C).

Control power absorption: see the power unit UP-AU

Dimensions: 135x86x24 mm

To combine with:	CRC			CRSL	SK	CCN		
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ID	Code
T-MB	9066331E



The control must always be connected with UPM-AU power unit (fitted on the unit) or with UP-AU power unit (with separate packaging).

Wall control with display that allows controlling one or more units in Master/Slave mode. The control is equipped with internal sensor to detect the room temperature, which can be defined as a priority compared to the return air sensor on the fan coil.

The T-MB wall control features the following functions:

- ON/OFF switch
- temperature set
- manual, automatic or centralized Summer/Winter switch
- set the fan speed (low, medium, high or auto fan)
- set the operation mode (fan only, cooling, heating; auto for 4 pipe systems with mode selection depending on the air temperature)
- it allows to use the low temperature cut-out thermostat NTC mounted on the power unit
- it allows to control the water valves (ON-OFF) and the electric heater managed as main heating element or as an integration element
- time setting
- weekly ON/OFF program

Control power absorption: see the power unit UP-AU

Dimensions: 110x72x25 mm

To combine with:	CRC			CRSL	SK	CCN		
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ID	Code
WM-503-AC-EC	9066686

The control must always be connected with UP-503-AC-EC power unit (separately delivered).

WM-503-AC-EC control allows to regulate the room temperature in both, the heating and the cooling modes, it can control one or two valves and fan coil units with asynchronous motor or fan coil units with EC electronic motors.

The WM-503-AC-EC control for fan coils with valves, is designed to be installed in a 503 wall box.

Easy to use, it is equipped with a large and efficient backlit LCD screen with 4 keys.

The kit lets the thermostat be suitable for all plaques on the market (28 types) and it is composed by: coloured covers (white, silver and anthracite), frames and adaptators.



- Manual or automatic 3 speed motor control for asynchronous versions
- EC motor control with 0-10V signal for the ECM versions
- Power supply by UP-503-AC-EC by means of the two-core cable
- Input for return air/water/change over probe
- ON/OFF / SET Reduction / remote SUMMER-WINTER digital input
- User interface with LCD display with adjustable backlight and 4 keys
- 2 and 4 pipe fan coil units control
- Button lock controller

Control power absorption: see the power unit UP-503-AC-EC

Dimensions: 68x52.2x(wall protrusion=12) mm

To combine with:	CRC			CRSL	SK	CCN		
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ID	Code
T2T	9066174

Only for 2 pipe units only.



- ON/OFF switch
- Manual 3 speed switch.
- Manual Summer/Winter switch.
- Thermostatic control on the fan.
- Thermostatic control on the valve and continuous fan operation.
- Simultaneous thermostatic control of the valve and fan.
- Cannot be used with speed switch (master-slave).

Control power absorption: 1,5 VA

Dimensions: 128x75x25 mm

To combine with:	CRC			CRSL	SK	CCN	CVP	MVI
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CONTROLS FOR FAN COIL WITH EC ELECTRONIC MOTOR AND INVERTER BOARD



For Carisma and SkyStar series the room temperature can be controlled with electronic room thermostats fitted on the unit with different solutions according to every ambient conditions; the control range includes manual or automatic speed switch control, thermostatic control of the water valves or of the electric heater, manual, automatic or centralized summer/winter switch.

With the use of the power unit and of the speed switches it is also possible to control more units with the same thermostat.



Here below there is the description of all controls for the versions with EC electronic motor and inverter board.

Overview of electronic controls fitted on the unit

The Fan coil controls fitted on the unit are only suitable for Sabiana units. Standard reference: EN 60335-2-40.





			
ID		CB-T-ECM	CB-T-ECM-IAQ
Code		9066320	9066308
To combine with	CarismaCRC-ECM/CRT-ECM	●	●
	Carisma CRR-ECM	●	
ON-OFF switch		✓	✓
Electric heater or IAQ electrostatic filter activation button			✓
Manual 3 speed switch		✓	✓
Automatic 3 speed progressive push button			
Automatic continuous speed control		✓	✓
Electronic room thermostat for fan control (ON-OFF)		✓	✓
Electronic room thermostat for one water valve control (2 pipe system)		✓	✓
Electronic room thermostat for two water valve control (4 pipe system)		✓	✓
Simultaneous thermostatic control of the valve and fan		✓	✓
Manual Summer/Winter switch		✓	✓
Summer/winter cycle with a centralized and remote switch or with an automatic change-over fitted on the water pipe (for 2 pipe system)			✓
Thermostatic control of the chilled water valve (ON-OFF) and the electric heater (BEL)			
Automatic Summer/Winter switch and continuous chilled and hot water supply, it allows the automatic summer winter change-over in accordance to the room temperature -1°C = Winter, +1°C = Summer, Neutral Zone 2°C (4 pipe installations with 2 valve)			
Thermostatic control of the water valves (ON-OFF) and the electric heater managed as main heating element or as an integration element (4 pipe system + electric heater) - NO IAQ			
Button lock controller			
Energy saving function			
Possibility to use a low temperature cut-out thermostat (optional)		✓	✓
Installation manual codes		4050882	4050855
Control description at page		p. 14	p. 14

Controls fitted on the unit

ID	Code	
CB-T-ECM	9066320	 <ul style="list-style-type: none"> • Manual 3 speed switch or automatic continuous speed control. • Manual Summer/Winter switch. • Continuous speed control based on the difference between ambient temperature and Set temperature (speed switch in Auto position). • Electronic room thermostat for fan control (ON-OFF). • Electronic room thermostat for valve control (ON-OFF) (the fan keeps working). • Simultaneous thermostatic control of the valves and fan. • It allows to control the low temperature cut-out thermostat NTC. • Presence of a LED signal when the thermostat is on. <p>Control power absorption: 1,5 VA</p> <p>To combine with:</p>
		<div>CRR-ECM</div> <div>CRT-ECM</div> <div>CRR-ECM</div> <div></div> <div></div> <div></div> <div></div> <div></div>
ID	Code	
CB-T-ECM-IAQ	9066308	 <ul style="list-style-type: none"> • Manual 3 speed switch or automatic continuous speed control. • Manual, automatic or centralized Summer/Winter switch. • Continuous speed control based on the difference between ambient temperature and Set temperature (speed switch in Auto position). • Electric heater/IAQ filter activation button. • Automatic speed switch: on Auto Mode there is the automatic speed selection in accordance to the difference between room temperature and setpoint. When the setpoint is reached the fan goes on OFF. • Electronic room thermostat for fan control (ON-OFF). • Electronic room thermostat for valve control (ON-OFF) (the fan keeps working). • Simultaneous thermostatic control of the valves and fan. • It allows to control the low temperature cut-out thermostat NTC. • Presence of a LED signal when the thermostat is on. <p>Control power absorption: 1,5 VA</p> <p>To combine with:</p>
		<div>CRC-ECM</div> <div>CRT-ECM</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>

Overview of electronic wall controls

The wall controls are in compliance with the standard reference CEI EN 60730.

					
ID		WM-AU	T-MB	WM-503-AC-EC	WM-S-ECM
Code		9066632	9066331E	9066686	9066644
To combine with	Carisma CRC-ECM / CRT-ECM / CRR-ECM	●	●	●	●
	Carisma CRSL-ECM				
	Cassette Carisma Coanda CCN-ECM				
	Cassette SkyStar SK-ECM				
	Carisma CVP-ECM				●
ON-OFF switch		✓	✓	✓	✓
Electric heater or IAQ electrostatic filter activation button		✓	✓		
Manual 3 speed switch		✓	✓	✓	✓
Automatic 3 speed progressive push button		✓	✓	✓	
Automatic continuous speed control				✓	✓
Electronic room thermostat for fan control (ON-OFF)		✓	✓	✓	✓
Electronic room thermostat for one water valve control (2 pipe system)		✓	✓	✓	✓
Electronic room thermostat for two water valve control (4 pipe system)		✓	✓	✓	✓
Simultaneous thermostatic control of the valve and fan		✓	✓	✓	✓
Manual Summer/Winter switch		✓	✓	✓	✓
Summer/winter cycle with a centralized and remote switch or with an automatic change-over fitted on the water pipe (for 2 pipe system)		✓	✓	✓	
Thermostatic control of the chilled water valve (ON-OFF) and the electric heater (BEL)		✓	✓	✓	
Automatic Summer/Winter switch and continuous chilled and hot water supply, it allows the automatic summer winter change-over in accordance to the room temperature -1°C = Winter, +1°C = Summer, Neutral Zone 2°C (4 pipe installations with 2 valve)		✓	✓	✓	
Thermostatic control of the water valves (ON-OFF) and the electric heater managed as main heating element or as an integration element (4 pipe system + electric heater) - NO IAQ		✓	✓		
Button lock controller			✓	✓	
Energy saving function		✓			
Possibility to use a low temperature cut-out thermostat (optional)		✓	✓	✓	✓
Installation manual codes		4050963A/B	4050963A/B	-	-
Control description at page		p. 16	p. 16	p. 17	p. 17

Wall electronic controls

ID	Code
WM-AU	9066632



The control must always be connected with UPM-AU power unit (fitted on the unit) or with UP-AU power unit (with separate packaging).

- ON/OFF switch
- Manual/automatic 3 speed switch.
- Manual, automatic or centralized Summer/Winter switch.
- Summer/Winter/Fan/Auto mode push button.
- Electric heater/IAQ filter activation button.
- Electronic room thermostat for fan and water valves control (ON-OFF).
- Simultaneous thermostatic control of the valves and fan.
- It allows to use the low temperature cut-out thermostat NTC mounted on the power unit.
- It allows to control the water valves (ON-OFF) and the electric heater managed as main heating element or as an integration element.
- Energy saving function.
- Presence of a LED signal when the thermostat is on.

N.B.: with 4 pipe installations and continuous chilled and hot water supply, it allows the automatic summer winter change-over in accordance to the room temperature (-1°C = Winter, +1°C = Summer, Neutral Zone 2°C).

Control power absorption: see the power unit UP-AU

Dimensions: 135x86x24 mm

To combine with:	CRC-ECM	CRT-ECM	CRR-ECM	CRSL-ECM	SK-ECM	CCN-ECM	
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ID	Code
T-MB	9066331E



The control must always be connected with UPM-AU power unit (fitted on the unit) or with UP-AU power unit (with separate packaging).

Wall control with display that allows controlling one or more units in Master/Slave mode. The control is equipped with internal sensor to detect the room temperature, which can be defined as a priority compared to the return air sensor on the fan coil.

The T-MB wall control features the following functions:

- ON/OFF switch
- temperature set
- manual, automatic or centralized Summer/Winter switch
- set the fan speed (low, medium, high or auto fan)
- set the operation mode (fan only, cooling, heating; auto for 4 pipe systems with mode selection depending on the air temperature)
- it allows to use the low temperature cut-out thermostat NTC mounted on the power unit
- it allows to control the water valves (ON-OFF) and the electric heater managed as main heating element or as an integration element
- time setting
- weekly ON/OFF program

Control power absorption: see the power unit UP-AU

Dimensions: 110x72x25 mm

To combine with:	CRC-ECM	CRT-ECM	CRR-ECM	CRSL-ECM	SK-ECM	CCN-ECM	
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ID	Code
WM-503-AC-EC	9066686

The control must always be connected with UP-503-AC-EC power unit (separately delivered).

WM-503-AC-EC control allows to regulate the room temperature in both, the heating and the cooling modes, it can control one or two valves and fan coil units with asynchronous motor or fan coil units with EC electronic motors.

The WM-503-AC-EC control for fan coils with valves, is designed to be installed in a 503 wall box.

Easy to use, it is equipped with a large and efficient backlit LCD screen with 4 keys.

The kit lets the thermostat be suitable for all plaques on the market (28 types) and it is composed by: coloured covers (white, silver and anthracite), frames and adaptators.



- Manual or automatic 3 speed motor control for asynchronous versions
- EC motor control with 0-10V signal for the ECM versions
- Power supply by UP-503-AC-EC by means of the two-core cable
- Input for return air/water/change over probe
- ON/OFF / SET Reduction / remote SUMMER-WINTER digital input
- User interface with LCD display with adjustable backlight and 4 keys
- 2 and 4 pipe fan coil units control
- Button lock controller

Control power absorption: see the power unit UP-503-AC-EC

Dimensions: 68x52.2x(wall protrusion=12) mm

To combine with:	CRC-ECM	CRT-ECM	CRR-ECM	CRSL-ECM	SK-ECM	CCN-ECM	
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ID	Code
WM-S-ECM	9066644

0-10V control with display designed to be mounted on the wall or to be installed on a 503 wall box.



- ON/OFF switch
- Manual 3 speed switch or automatic continuous speed control.
- Manual Summer/Winter switch.
- Summer/Winter/Fan/Auto mode push button.
- Electronic room thermostat for fan control (ON-OFF).
- Electronic room thermostat for valve control (ON-OFF) (the fan keeps working).
- Simultaneous thermostatic control of the valves and fan.
- It allows to control the low temperature cut-out thermostat NTC.

Control power absorption: 1,2 VA

Dimensions: 132x87x23,6 mm

To combine with:	CRC-ECM	CRT-ECM	CRR-ECM	CRSL-ECM	SK-ECM	CCN-ECM	CVP-ECM
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POWER UNIT AND SPEED SWITCHES FOR CONTROLS

ID		Code	
UPM-AU	mounted	9066641	for WM-AU and T-MB controls
UP-AU	not mounted	9066640	



Power unit to be installed on the fan coil (fan coil interface).

- It controls the fan and the valves of the fan coil.
- It is connected to the electric supply.
- It receives the information required from the control.
- Possibility to use the NTC low temperature cut-out thermostat (optional) for the T1 function which allows the return air control.
- Possibility to use the NTC low temperature cut-out thermostat (optional) for the T2 function which controls the summer/winter switch.
- Possibility to use the NTC low temperature cut-out thermostat (optional) for the T3 function as low temperature cut-out thermostat.
- It allows to control up to 10 units (1 master and 9 slaves).
- Max. Network length: 100 meters.
- Max cable length between control and first connected power unit: 20 meters.

Power unit absorption: 2,3 VA

To combine with:	CRC CRC-ECM	CRT-ECM	CRR-ECM	CRSL CRSL-ECM	SK SK-ECM	CCN CCN-ECM		
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ID	Code	
UP-503-AC-EC	9066687	for WM-503-AC-EC control



Power unit to be installed on the fan coil (fan coil interface).

- It receives from the WM-503-AC-EC remote control the information required to control the valves and the motor.
- It allows to control up to 5 units (1 master and 4 slaves).
- Must be connected to the electric supply.
- Max. Network length: 100 meters.
- Max cable length between control and first connected power unit: 20 meters.

Power unit absorption: 2 VA

To combine with:	CRC CRC-ECM	CRT-ECM	CRR-ECM	CRSL CRSL-ECM	SK SK-ECM	CCN CCN-ECM		MVI
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ID	Code	
SEL-CB	9066304	for WM-T and WM-TQR controls



- Speed switch (Slave).
- It allows to control up to 8 units with only one centralized wall control (1 speed switch for each unit).

Note: for CRC fan coil series, MV-MVB versions.

To combine with:	CRC							
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ID	Code	
SEL-CR	9066311	for WM-T and WM-TQR controls
 <ul style="list-style-type: none"> Speed switch (Slave). It allows to control up to 8 units with only one centralized wall control (1 speed switch for each unit). <p><i>Note: for CRC fan coil series, MO-IV-IO versions.</i></p>		
To combine with:		
	CRC	CRSL
		MVI
ID	Code	
SEL2M	9079109	for WM-T and WM-TQR controls
 <ul style="list-style-type: none"> Speed switch (Slave). It allows to control up to 8 units with only one centralized wall control (1 speed switch for each unit). <p><i>Note: for Coanda CCN and SkyStar SK fan coil series.</i></p>		
To combine with:		
		SK
		CCN
ID	Code	
SEL-CVP	9025302	for WM-T and WM-TQR controls
 <ul style="list-style-type: none"> Speed switch (Slave). It allows to control up to 8 units with only one centralized wall control (1 speed switch for each unit). <p><i>Note: for CVP fan coil serie.</i></p>		
To combine with:		
		CVP

ACCESSORIES FOR CONTROLS

ID	Code	
TME	3021091	for CB-C and CB-R-IAQ controls

Low temperature cut-out thermostat



- To be fitted between the coil fins.
- When connecting the control, the TME probe cable must be separated from the power supply wires.
- It stops the fan when the water temperature is lower than 38°C and it starts the fan when is higher than 42°C.

ID	Code	
TMM	9053048	for CB, CB-T, CB-IAQ, WM-3V and WM-T controls

Low temperature cut-out thermostat



- To be installed in contact with the hot water circuit.
- For units working on heating only.
- It stops the fan when the water temperature is lower than 30°C and it starts the fan when is higher than 38°C.

ID	Code	
NTC	3021090	for CB-AUT, CB-T-ECM, CB-AUT-IAQ, CB-T-ECM-IAQ, WM-TQR, WM-S-ECM, WM-503-AC-EC controls and UP-AU power unit

Low temperature cut-out thermostat




- To be fitted between the coil fins.
 - When connecting the control, the NTC probe cable must be separated from the power supply wires.
 - It stops the fan when the water temperature is lower than 28°C and it starts the fan when is higher than 33°C.
- To use as:
- T1 function for the return air control
 - T2 function which controls the summer/winter switch
 - T3 function as low temperature cut-out thermostat

ID	Code	
CH 15-25	9053049	for CB-C, CB-R-IAQ, CB-T-ECM-IAQ and WM-TQR controls

Change-over



- Automatic summer/winter switch to be installed in contact with the water circuit.
- For 2 tube installations only (not to be used with 2 way valve).

ID	Code	
T2	9025310	for CB-AUT, CB-AUT-IAQ controls and UP-AU power unit
		<p>Type NTC sensor, to be placed on the water supply pipe upstream 3 way valves (not to be used with 2 way valves).</p> <div data-bbox="253 365 527 491">  </div> <p>The T2 sensor must be used as described below:</p> <ul style="list-style-type: none"> • change-Over for the automatic switch of the operating mode. If water temperature is lower than 20°C, cooling mode is set; on the other hand, if water temperature exceeds 30°C, heating mode is set • it can be used on units with electric heater and hot water supply (EXCEPT SkyStar). The T2 priority probe activates the electric heater or water valve, depending on the water temperature detected. If water temperature exceeds 34°C, the water valve ON-OFF control is activated; on the other hand, if water temperature is lower than 30°C, the electric heater is activated

MB CONTROLS AND UNITS - CARISMA FAN COIL RANGE

Carisma fan coil range with AC asynchronous motor and with EC electronic motor and inverter board

All the Carisma units can be supplied with a wide range of controls, which allows managing one single unit or several units by using the Modbus RTU - RS 485 communication protocol.

Units can be managed according to the Master/Slave logic (up to 20 units) or by supervisory components.

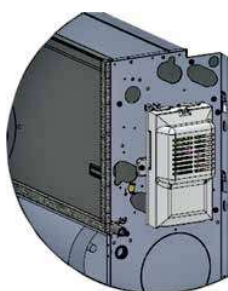
The system includes a single **MB power board** and a range of technical devices to be used with:

- the **T-MB** wall control and the **RT03** remote control, to manage single units;
- the **PSM-DI** multifunctional panel, the **Sabianet** supervisory system, the **T-DI Touch screen multifunction control panel** and the **SabWeb** Web gateway for "Sabiana Cloud", to manage one single unit or several units.

MB electronic board

ID		Code	
MB-M	mounted	9066332	with electric asynchronous motor
MB-S	not mounted	9066333	
MB-ECM-M	mounted	9066334	with electronic motor and inverter board
MB-ECM-S	not mounted	9066335	
MB-MVI-M	mounted	9070501	with AC asynchronous motor - only for MVI range

To be mounted on the fan coil internal unit.
Note: on CVP-MB and CVP-ECM-MB fan coil units the electronic board is to be mounted.



The MB electronic board is set to carry out different functions and adjustment modes, in order to meet the installation requirements. These modes are selected by setting the configuration dip switches on the board.

- 2/4 pipe system.
- Electronic room thermostat or automatic fan speed modulation for fan control (ON-OFF).
- Valve ON/OFF thermostatic control and continuous ventilation.
- Valve and simultaneous ventilation ON/OFF thermostatic control.
- Fan operation control depending on the coil temperature (cut-out T3 probe fitted), which can be activated only in heating mode or heating and cooling mode.
- Automatic switch of the operating mode by means of T2 water probe (optional) applied on the 2 pipe system.
- Seasonal switch by means of remote contact.
- ON/OFF of the fan coil by means of the remote contact (window or clock contact).
- Electric heater or IAQ electronic filter control (the simultaneous control of the heater and of the IAQ filter is not possible).

By activating the cut-out T3 probe function, the fan is stopped in winter when the coil temperature is lower than 32°C and started when the temperature reaches 36°C. In summer mode, the fan stops when the temperature inside the coil exceeds 22°C and starts when it drops below 18°C.

The following connections are located on the power board:

- receiver for infra-red remote control
- T-MB wall control
- serial connection RS 485 to manage several fan coil units in Master/Slave configuration or to create a supervisory network

NTC sensor included for T1 function (return air control).

NTC sensor included for T3 function (low temperature cut-out thermostat).

Possibility to use the NTC low temperature cut-out thermostat (optional) for the T2 function which controls the summer/winter switch.

To combine with:

CRC CRC-ECM	CRT-ECM	CRR-ECM	CRSL CRSL-ECM		CCN CCN-ECM	CVP-MB CVP-ECM-MB	MVI
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T-MB control

To be used with MB electronic board only.

ID	Code	
T-MB	9066331E	Wall control supplied with separate packaging
T-MB-M	9066344	Control fitted on the unit, for MV / MVB models with left connections
T-MB-S	9066343	Control fitted on the unit, supplied with separate packaging, for MV / MVB models with left connections
T-MB-M-DX	9066346	Control fitted on the unit, for MV / MVB models with right connections
T-MB-S-DX	9066345	Control fitted on the unit, supplied with separate packaging, for MV / MVB models with right connections

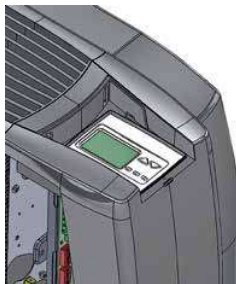


Wall control with display that allows controlling one or more units in Master/Slave mode. The control is equipped with internal sensor to detect the room temperature, which can be defined as a priority compared to the return air sensor on the fan coil.

The T-MB wall control features the following functions:

- ON/OFF switch
- temperature set
- modify the set point (when used as a +/- 3° variation of the set point configured from Sabianet supervisory program or PSM-DI)
- set the fan speed (low, medium, high or auto fan)
- set the operation mode (fan only, cooling, heating; auto for 4 pipe systems with mode selection depending on the air temperature)
- time setting
- weekly ON/OFF program
- display and change of the fan coil operation parameters
- vertical air flow function (FLAP) **for serieCVP-T/CVP-MB**

Dimensions: 110x72x25 mm



T-MB version fitted on the unit

For fan coil with casing only version: CRC / CRC-ECM / CRT-ECM

To combine with:	CRC CRC-ECM	CRT-ECM	CRR-ECM	CRSL CRSL-ECM		CCN CCN-ECM	CVP-MB CVP-ECM-MB	MVI
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RT03 remote control

To be used with MB electronic board only.

ID	Code	
RS-RT03	9066337	RT03 infra-red remote control with receiver supplied with separate packaging
RT03	3021203	RT03 infra-red remote control supplied with separate packaging
RS	9066338	Receiver for RT03 infra-red remote control supplied with separate packaging
RS-RT03-F	9025301	RT03 infra-red remote control with receiver supplied with separate packaging – only for CVP-T/CVP-MB fan coil units
RS-F	9025300	Receiver for RT03 infra-red remote control supplied with separate packaging – only for CVP-T/CVP-MB fan coil units

Note: not to be used with MVI range.



The infra-red remote control allows setting by a remote position the fan coil operation parameters.

The RT03 remote control features the following functions:

- switch the unit ON and OFF
- temperature set
- set the fan speed (low, medium, high or auto fan)
- set the operation mode (fan only, cooling, heating; auto for 4 pipe systems with mode selection depending on the air temperature)
- time setting
- 24 hours ON/OFF program
- vertical air flow function (FLAP) **for serie CVP-T/CVP-MB**

Installation examples with RT03 infra-red remote control

Concealed / High Pressure Carisma Fan Coil Units



Carisma Coanda



Carisma MV-M0-MVB



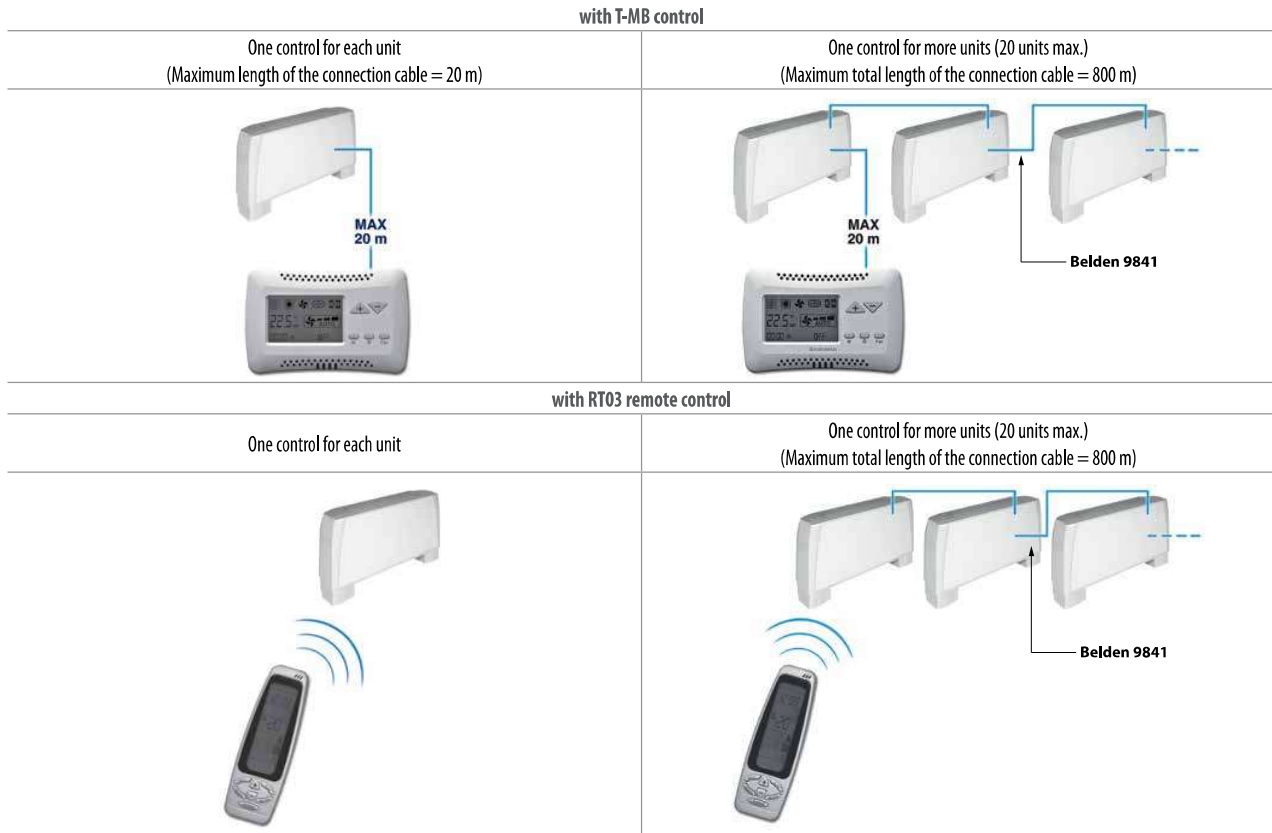
Carisma Fly



More fan coils with **MB board** can be connected with the Bus communication protocol and can be managed at the same time by a **T-MB** single control or by only one **RT03** infra-red remote control. Using the special jumper present on the MB board, one unit must be configured as the master, and all the others as slaves.

It is clear that the remote control must be pointed at the receiver on the master unit.

To avoid problems, it is recommended to install and connect the receiver only on the master unit.



T2 accessory for units with MB electronic board

ID	Code	
T2	9025310	for CB-AUT, CB-AUT-IAQ controls and UP-AU power unit



Type NTC sensor, to be placed on the water supply pipe upstream 3 way valves (not to be used with 2 way valves).

The T2 sensor must be used as described below:

- Change-Over for the automatic switch of the operating mode. If water temperature is lower than 20°C, cooling mode is set; on the other hand, if water temperature exceeds 30°C, heating mode is set
- it can be used on units with electric heater and hot water supply (EXCEPT SkyStar). The T2 priority probe activates the electric heater or water valve, depending on the water temperature detected. If water temperature exceeds 34°C, the water valve ON-OFF control is activated; on the other hand, if water temperature is lower than 30°C, the electric heater is activated

MB CONTROLS AND UNITS - SKYSTAR FAN COIL RANGE

Cassette SkyStar with AC asynchronous motor and with EC electronic motor and inverter board

All the SkyStar units with MB electronic board can be supplied with a wide range of controls, which allows managing one single unit or several units by using the Modbus RTU - RS 485 communication protocol.

Units can be managed according to the Master/Slave logic (up to 20 units) or by supervisory components.

The system includes a single **MB power board** and a range of technical devices to be used with:

- the **T-MB** wall control and the **RT03** remote control, to manage single units;
- the **PSM-DI** multifunctional panel, the **Sabianet** supervisory system, the **T-DI Touch screen multifunction control panel** and the **SabWeb** Web gateway for "Sabiana Cloud", to manage one single unit or several units.

MB electronic board



mounted as per standard

The MB electronic board, to be mounted on the SK-MB and SK-ECM-MB versions, is set to carry out different functions and adjustment modes, in order to meet the installation requirements. These modes are selected by setting the configuration dip switches on the board.

- 2/4 pipe system.
- Electronic room thermostat or automatic fan speed modulation for fan control (ON-OFF).
- Valve ON/OFF thermostatic control and continuous ventilation.
- Valve and simultaneous ventilation ON/OFF thermostatic control.
- Fan operation control depending on the coil temperature (cut-out T3 probe fitted), which can be activated only in heating mode or heating and cooling mode.
- Automatic switch of the operating mode by means of T2 water probe (optional) applied on the 2 pipe system.
- Seasonal switch by means of remote contact.
- ON/OFF of the fan coil by means of the remote contact (window or clock contact).
- Electric heater or IAQ electronic filter control (the simultaneous control of the heater and of the IAQ filter is not possible).

By activating the cut-out T3 probe function, the fan is stopped in winter when the coil temperature is lower than 32°C and started when the temperature reaches 36°C. In summer mode, the fan stops when the temperature inside the coil exceeds 22°C and starts when it drops below 18°C.

The following connections are located on the power board:

- receiver for infra-red remote control
- T-MB wall control
- serial connection RS 485 to manage several fan coil units in Master/Slave configuration or to create a supervisory network

NTC sensor included for T1 function (return air control).


NTC sensor included for T3 function (low temperature cut-out thermostat).

Possibility to use the NTC low temperature cut-out thermostat (optional) for the T2 function which controls the summer/winter switch.

To combine with:

SK-MB
SK-ECM-MB

T-MB control

ID	Code																	
T-MB	9066331E	Wall control supplied with separate packaging																
		<p>Wall control with display that allows controlling one or more units in Master/Slave mode.</p> <p>The control is equipped with internal sensor to detect the room temperature, which can be defined as a priority compared to the return air sensor on the fan coil.</p> <p>The T-MB wall control features the following functions:</p> <ul style="list-style-type: none">• ON/OFF switch• temperature set• modify the set point (when used as a +/- 3° variation of the set point configured from Sabianet supervisory program or PSM-DI)• set the fan speed (low, medium, high or auto fan)• set the operation mode (fan only, cooling, heating; auto for 4 pipe systems with mode selection depending on the air temperature)• time setting• weekly ON/OFF program• display and change of the fan coil operation parameters <p>Dimensions: 110x72x25 mm</p>																
To combine with:		<table><tr><td></td><td></td><td></td><td></td><td>SK-MB</td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td>SK-ECM-MB</td><td></td><td></td><td></td></tr></table>					SK-MB								SK-ECM-MB			
				SK-MB														
				SK-ECM-MB														



RT03 remote control

To be used with MB versions only.

ID	Code	
RCS-RT03	9079117	RT03 infra-red remote control with receiver supplied with separate packaging (not to be used with SkyStar Jumbo)
RT03	3021203	RT03 infra-red remote control supplied with separate packaging
RCS	9079116	Receiver for RT03 infra-red remote control supplied with separate packaging (not to be used with SkyStar Jumbo)
RS	9066338	Receiver for RT03 infra-red remote control and MD-600 / MD-800 metal diffuser supplied with separate packaging



RCS-RT03



RCS



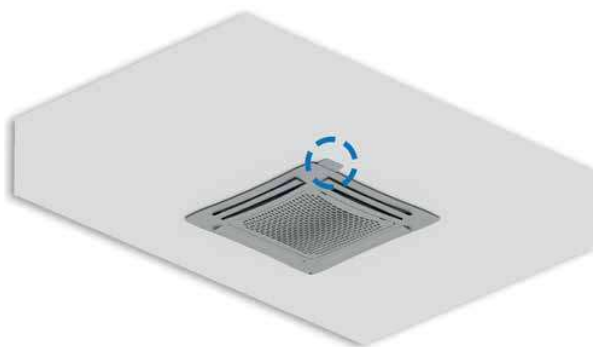
The infra-red remote control allows setting by a remote position the fan coil operation parameters.

The RT03 remote control features the following functions:

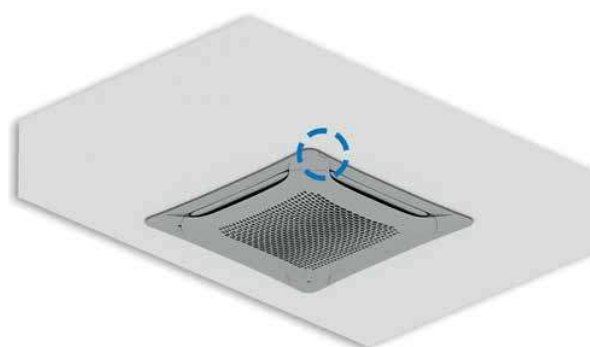
- switch the unit ON and OFF
- temperature set
- set the fan speed (low, medium, high or auto fan)
- set the operation mode (fan only, cooling, heating; auto for 4 pipe systems with mode selection depending on the air temperature)
- time setting
- 24 hours ON/OFF program

Installation examples with RT03 infra-red remote control

Cassette SK / SK-ECM



Cassette Jumbo SK-ECM

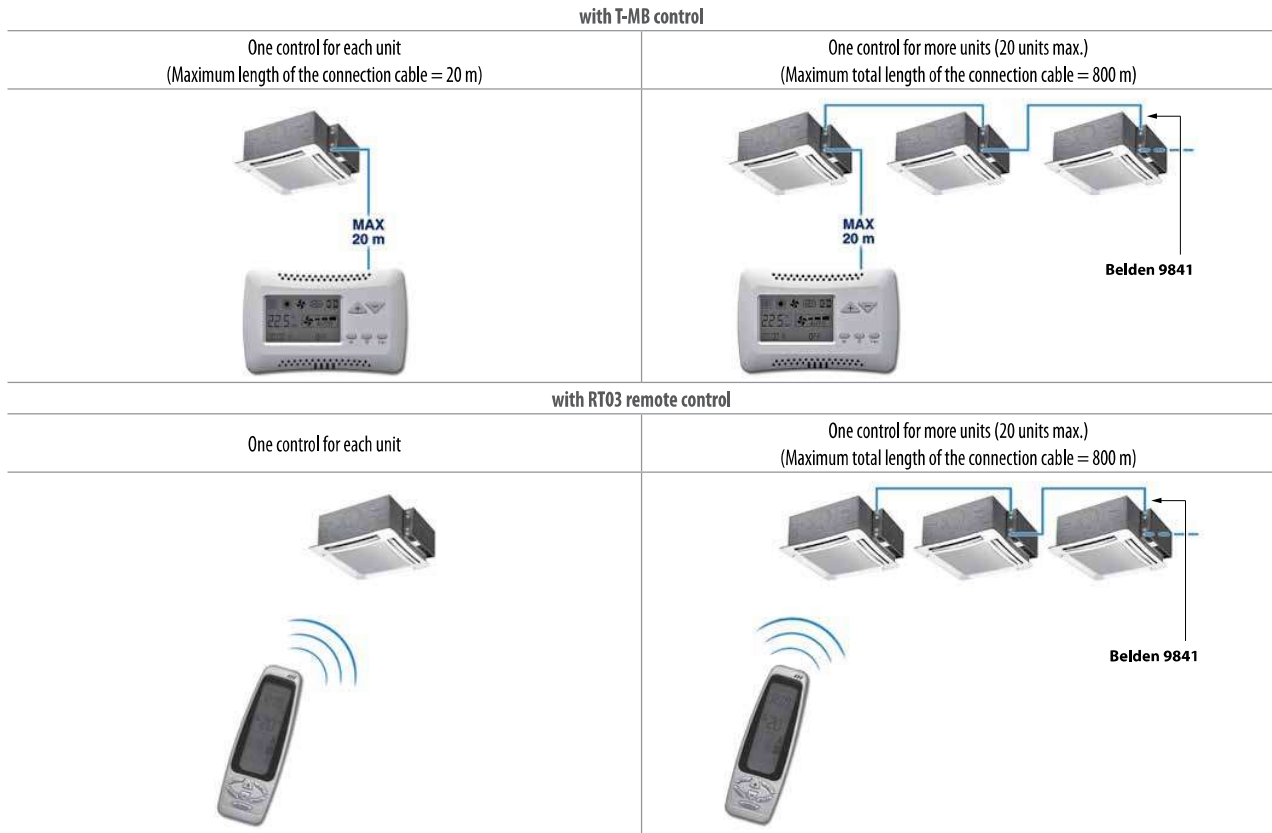


More Cassette fan coils MB version can be connected with the Bus communication protocol and can be managed at the same time by a **T-MB** single control or by only one **RT03** infra-red remote control.

Using the special jumper present on the MB board, one unit must be configured as the master, and all the others as slaves.

It is clear that the remote control must be pointed at the receiver on the master unit.

To avoid problems, it is recommended to install and connect the receiver only on the master unit.



T2 accessory for units with MB electronic board

ID	Code
T2	9025310



Type NTC sensor, to be placed on the water supply pipe upstream 3 way valves (not to be used with 2 way valves).

The T2 sensor must be used as described below:

- Change-Over for the automatic switch of the operating mode. If water temperature is lower than 20°C, cooling mode is set; on the other hand, if water temperature exceeds 30°C, heating mode is set

NTC probe with Bluetooth interface

To be used with SkyStar Jumbo only.

ID	Code	
WM-NTC	9079885	<p>The WM-NTC probe to be used only with the MB board for SkyStar Jumbo SK-ECM-MB unit, is a control for concealed installation (box interaxle spacing 60 mm) for room temperature control. This control with fitted NTC probe lets the prevention from stratification problems.</p> <p>Technical characteristics:</p> <ul style="list-style-type: none"> • on/off switch for the fan coil unit • manual and automatic 3 speed switch • internal probe for room temperature detection • receiver for infra-red remote control • integrated Bluetooth® Module <p>With the dip-switches it is possible to select the following operating functions:</p> <ul style="list-style-type: none"> • room temperature cut-out thermostat only • ON/OFF switch • ON/OFF and speed change switches • operating mode with receiver for infra-red remote control for RT03 • operating function with receiving/transmitting Bluetooth data ® <p>The WM-NTC probe can be used as stand-alone or master/slave</p>
To combine with:		SK-ECM-MB



MB CONTROLS AND UNITS

Carisma and SkyStar Cassette fan coil ranges with AC asynchronous motor and with EC electronic motor and inverter board

PSM-DI multifunction control panel

ID	Code	
PSM-DI	3021293	Multifunction control (to be used with MB board or MB versions only)

Another option available for the serial communication between the units is the possibility to connect up to 60 Cassette units in series and manage them with just one wall mounted 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 (the program can be set for all the units and for a maximum of ten groups of units).

If more than 60 units need to be connected, two or more PSM-DI control panels must be used.

Each unit must have a MB board.

The PSM-DI control is used to manage a series of fan coils, up to a maximum of 60 units (the maximum length of the RS 485 connection cable must not exceed 800 m), from one single control point.

The PSM-DI control communicates via a serial line with all the units connected, with the possibility of controlling them all together or individually. In fact, the unique address of each individual fan coil means that all the units can be called at the same time, or the individual unit called, to perform the following functions:

- display the current operating mode, the fan speed, the set point
- display the room temperature measured on the individual unit
- turn all the units ON and OFF at the same time or alternatively each unit individually
- change the operating mode (fan only, heating, cooling, automatic changeover)
- change the set point and modify the values and operation parameters of the fan speed



Each function can then be sent to all the units connected, or alternatively to each individual unit. Different set points or operating modes can be set for each individual unit.

The PSM-DI panel can also be used for the time management of the units over the week. Four ON times and four OFF times can be set on the units for each day of the week. A different temperature set that will be considered as Operation set for all connected appliances, can be set for each event. If the temperature set is not entered for the individual event, it must be set during programming for each individual unit or for the entire network.

Units without receiver or with receiver can be connected within the network: the former can receive instructions only from the PSM-DI wall mounted panel; while the latter can receive information from both the wall mounted panel (PSM-DI) and infra-red remote control. Use the infra-red remote control to force ON mode of the individual unit, if ON/OFF daily time programming has been set. The unit will regain the settings from the PSM-DI panel during execution of successive start-up program.

The PSM-DI panel cannot be used together with the Sabianet management program.

Notes:

- set the Dip Switches of each fan coil as illustrated in the remote control installation manual, based on the required solutions
- only one SIOS board is allowed to be used per each PSM-DI control panel
- about "Priority pump function": when just one unit calls for, the relay RL1 on the SIOS board is automatically activated to connect a hot water pump
- the RS 485 network's overall length must not exceed 700/800 metres

To combine with:	CRC CRC-ECM	CRT-ECM	CRR-ECM	CRSL CRSL-ECM	SK-MB SK-ECM-MB	CCN CCN-ECM	CVP-MB CVP-ECM-MB	MVI
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T-DI Touch screen multifunction control panel

ID	Code	
T-DI	9066685	



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 from a distance 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.

To combine with:	CRC CRC-ECM	CRT-ECM	CRR-ECM	CRSL CRSL-ECM	SK-MB SK-ECM-MB	CCN CCN-ECM	CVP-MB CVP-ECM-MB	MVI
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Web gateway for Sabiana Cloud

ID	Code	
SabWeb	9066892	



With the Web gateway for "Sabiana Cloud" it is possible to control from a distance 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.

To combine with:	CRC CRC-ECM	CRT-ECM	CRR-ECM	CRSL CRSL-ECM	SK-MB SK-ECM-MB	CCN CCN-ECM	CVP-MB CVP-ECM-MB	MVI
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SABIANET SOFTWARE

Carisma and SkyStar Cassette fan coil ranges with AC asynchronous motor and with EC electronic motor and inverter board

Sabianet program for managing a network of Sabiana MB fan coils

ID	Code						
Sabianet	9079118	Hardware/software supervisory system (to be used with MB board and MB versions only)					
<p>Sabianet is a centralised control system for networks of Sabiana MB fan coils, based on software that runs on LINUX™ operating system (the program is provided pre-installed on a PC) and it works in a "stand alone" way, as an ordinary computer, so that it can be connected to a monitor, to a mouse and to a keyboard. By connecting an Ethernet cable it is instead possible to work at a distance and visualize the entire program setting-up through whatever browsers. The Sabianet software offers a practical and economical solution for managing the units, with the simple click of the mouse.</p> <p>The main characteristics are:</p> <ul style="list-style-type: none">• simplicity of use• an extremely complete and functional weekly program• possibility to access the historical operating data for each individual unit connected• possibility of data saving on USB key• visualization of the saved configuration on a new ASUS PC <p>The program can be used to:</p> <ul style="list-style-type: none">• create uniform groups (groups of units on individual floors, in offices or rooms)• save weekly programs configured for different types of operation (summer, winter, mid seasons, closing periods etc.); these can then be recalled and activated with a simple click of the mouse. Weekly on/off cycles can be set for individual units or groups of units• set the operating conditions for each individual unit or groups of units (operating mode, fan speed, temperature setting)• set the set point limits for each individual unit or groups of units• switch each individual unit or groups of units ON or OFF <p>With the Sabianet multifunction control panel it is also possible to control the units from a distance with the specific APP Sabiana Cloud for Android and iOS.</p> <p>The Sabiana Cloud APP is simple to use and lets have complete control of all the connected units.</p>							
							
To combine with:							
CRC CRC-ECM	CRT-ECM	CRR-ECM	CRSL CRSL-ECM	SK-MB SK-ECM-MB	CCN CCN-ECM	CVP-MB CVP-ECM-MB	MVI

Graphical pages

The main program screen can display and interact with the entire network of units.

An individual unit, a group of units or the entire network can be called so as to make modifications to the operating mode and the set point.

The user can then check the operating status of each individual unit, read the room temperature, the coil temperature and the operating status of the condensate drain pump or any alarms.

The **"Monitoring"** Screen shows the units that are connected to the network and scanned by the program.





The icon of the terminal unit provides the following information:

- unit name (0.2766.8)
- set temperature (SETP)
- room temperature (AT)
- unit status:



ON



OFF

- mode:



Summer



Winter



Auto



Fan only

- fan speed:



Low



Medium



High

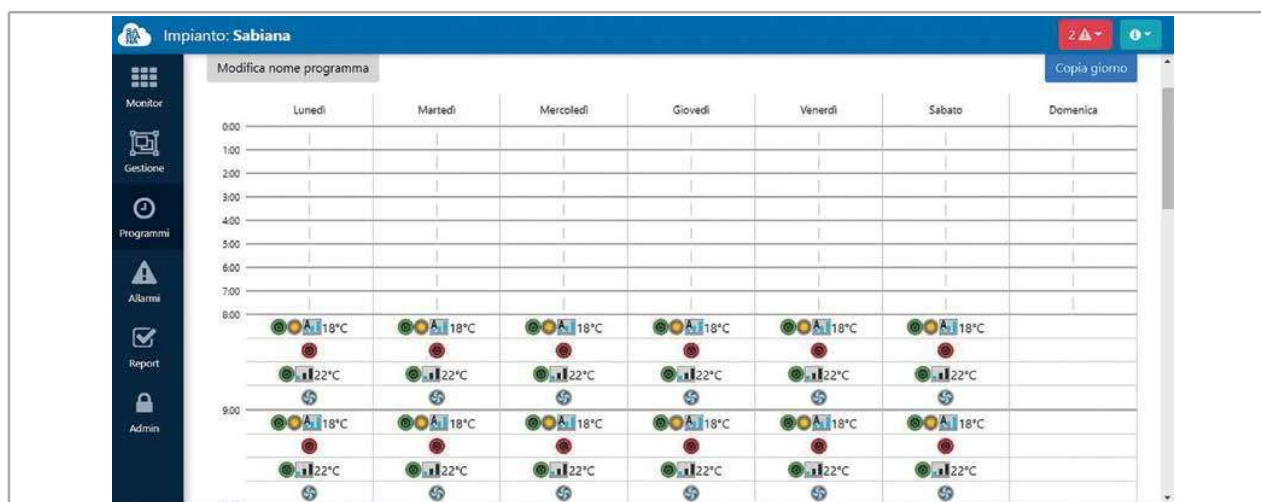


Auto Fan

The **"Programs"** Screen, can be used to set the unit operating parameters for each day of the week. Several weekly programs can be set.

Time bands are available for each day of the week. The time and the type of operation to be performed by the unit can be set for each band.

The time and the operating parameters can then be displayed before being sent to the unit and implemented.



Every time that the reading of the set up Dip Switches results not easy (as for example by the false ceiling installations), it is always possible to display them directly through the Sabianet program.

camera 54 - 0.2892.10 - ECM FanCoil

Stato unità

Configurazione

Parametri

ON

1 2 3 4 5 6 7 8 9 10

Dip	OFF option	ON option
1: OFF	Impianto a 2 tubi	Impianto a 4 tubi
2: OFF	Termostatazione con valvole	Termostatazione con Fan
3: OFF	T3 disabilitata	T3 abilitata
4: OFF	T3 solo Inverno quando abilitata	T3 Inverno ed Estate quando abilitata
5: OFF	Ventilazione continua	Ventilazione contemporanea delle valvole
6: OFF	IAQ	Gestione Resistenze
7: OFF	T2 come Change-Over CH (resistenza II° gradino)	Gestione Resistenze con T2
8: OFF	RL7 (D0-D0) abbinato allo stato del controllore	--
9: OFF	CA = ON/OFF remoto	CA = Estate/Inverno remoto
10: OFF	Master	Slave

camera 54 - 0.2892.10 - ECM FanCoil

Stato unità

Configurazione

Parametri

T3 ventilatore ON riscaldamento

- 34.0 °C +

T3 ventilatore ON raffreddamento

- 22.0 °C +

Isteresi T3 per ventilatore

- 5.0 °C +

Tempo massimo OFF ventilatore per antistratificazione

- 10 min. +

Tempo ON antistratificazione

- 60 sec. +

Tempo post ventilazione

- 180 sec. +

ECM tensione velocità minima

- 1.0 V +

ECM tensione velocità media

- 5.0 V +

ECM tensione velocità massima

- 10.0 V +

Offset sonda T-MB

- 0.0 °C +

1 2 3 4

Chiudi

Reset parametri

Salva

In addition to the alarm set on the **"Alarms"** Screen, it is possible to send the ON-OFF alarm notification via E-mail and sms.

Impianto: Sabiana

Monitor

Gestione

Programmi

Alarmi

Report

Admin

Storico allarmi

Impostazioni notifica allarmi

Tipo evento

eMail

Unità in allarme [qualsiasi]	All'attivazione invia	immediatamente	Invia alla disattivazione	No
Unità in allarme condensa	All'attivazione invia	mai	Invia alla disattivazione	No
Unità in allarme sonda	All'attivazione invia	mai	Invia alla disattivazione	No
Unità persa	All'attivazione invia	mai	Invia alla disattivazione	No
0.2892.6.1	All'attivazione invia	mai	Invia alla disattivazione	No
0.2892.6.2	All'attivazione invia	mai	Invia alla disattivazione	No

RS 485 serial connection cable

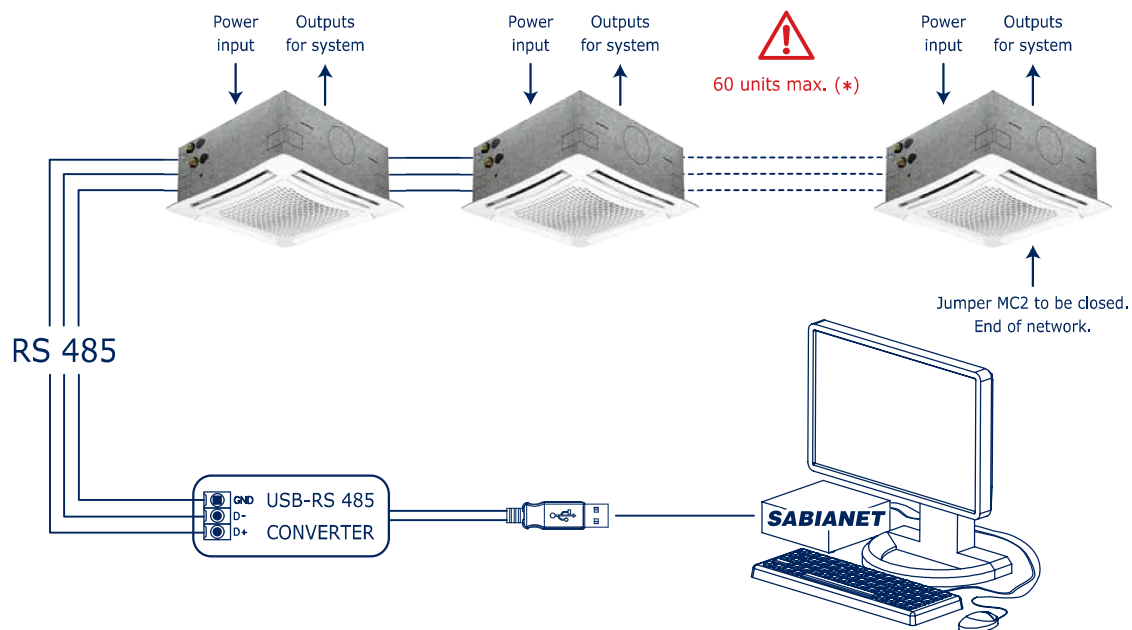
Shielded cable to be used: Belden 9841, RS-485, 1x2x24 AWG SFTP, 120 Ohm.



PC Sabianet Software

Installation example with a SkyStar network with MB board.

(*) In the event of more than 60 units, add one or more Router-S (see next page).



MB AND SABIANET ACCESSORIES

Carisma and SkyStar Cassette fan coil ranges with AC asynchronous motor and with EC electronic motor and inverter board

ID	Code	
SIOS	3021292	



The SIOS is a board equipped with 8 relays with potential free contact to control the activation or deactivation of remote electric utilities. Moreover, the board has 8 digital inlets to display the actuators or external consents, such as motor or other.

The SIOS boards can be connected:

- inside a network managed by Sabianet
- inside a network managed by T-DI
- inside a network managed by SabWeb
- to a PSM-DI panel (one SIOS for each PSM-DI panel)

To combine with:	CRC CRC-ECM	CRT-ECM	CRR-ECM	CRSL CRSL-ECM	SK-MB SK-ECM-MB	CCN CCN-ECM	CVP-MB CVP-ECM-MB	MVI
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ID	Code	
Router-S	3021290	



The Router-S is an electronic board that allows to control several units inside a network managed by Sabianet (default) or within a sub-network managed by BMS systems, that are not provided by Sabiana (it is necessary to operate on a Dip Switch on the board).

Managed by Sabianet

The Router-S in the standard version is an electronic board that:

- allows creating networks with more than 60 units (minimum 2 Router-S are required) or to divide the network (per floor, building, ecc.)
- allows creating a Master/Slave sub-network to be controlled as an independent group

The number of Router-S to be used is:

- up to 60 units: no Router-S
- from 61 to 120 units: 2 Router-S
- every 60 subsequent units: 1 additional Router-S

Managed by BMS Systems which are not provided by Sabiana

The Router-S becomes an electronic board to use with BMS systems (not by Sabiana), only after having set the Dip Switch on the board and so creating a Master/Slave sub-network to be controlled as an independent group.

The number of Router-S to be used is:

- max 14 Router-S
- maximum 15 Fan Coils per Router-S

To combine with:	CRC CRC-ECM	CRT-ECM	CRR-ECM	CRSL CRSL-ECM	SK-MB SK-ECM-MB	CCN CCN-ECM	CVP-MB CVP-ECM-MB	MVI
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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

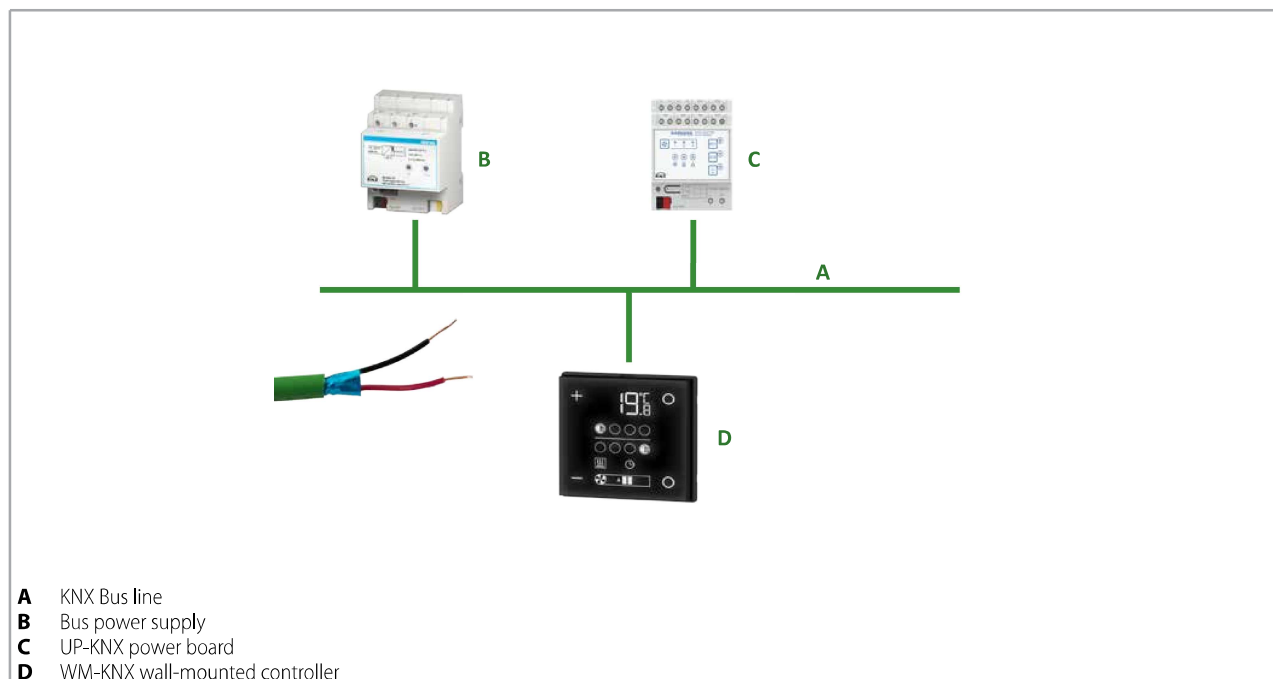
Since 2016, Sabiana is a certified member of the KNX association and the certified products can be added to this system in compliance with the tests carried out at KNX laboratories.



Communication between KNX devices takes place in digital form, through the serial transmission of information organised in bit sequences called "telegrams".

KNX devices use a twisted pair signal cable as a transmission medium; correct communication is ensured by the use of bus cables with 1 or 2 pairs of wires, made in compliance with the KNX Association KNX TP1 specifications.

Sabiana makes the application file for programming the device available on its website; the system engineer, who must be an authorised KNX partner and have the ETS5 software available, can configure the system using this application file.



ID	Code	
WM-KNX	9066679	Recessed thermostat



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 to be fitted in a recessed box, that can be rectangular, squared or round.



Main features:

- temperature reading with sensor on WM-KNX thermostat or on UP-KNX
- seasonal switching from keyboard or automatic switching from bus
- operating modes: comfort, standby, economy and building protection with separate set points for heating and cooling
- power supply from KNX bus



To combine with:	CRC CRC-ECM	CRT-ECM	CRR-ECM	CRSL CRSL-ECM	SK SK-ECM	CCN CCN-ECM	CVP CVP-ECM	MVI
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ID	Code	
UP-KNX	9066680	Power unit for WM-KNX

The UP-KNX power unit is a Fan Coil controller that receives the setpoint from a probe connected to its analog input or from the WM-KNX wall control.

The controller is suitable for 2 or 4 pipe installations with ON/OFF solenoid valves and for fan coil units with asynchronous motor and with EC electronic motor.

The power unit includes also 3 digital inputs to set as analog or digital.

The keypad membrane lets the manual control and includes the signal status LEDs and the keys for the valve and the fan assembly activation.



Main features:

- n° 3 inputs to set as:
 - ambient probe fitted on the fan coil unit
 - water coil temperature probe
 - change-over probe
 - window contact
- n° 2 outputs for ON/OFF 230 Vac valve control
- 230 Vac power supply
- DIN 4 modules plastic case
- Din bar included into the package

To combine with:	CRC CRC-ECM	CRT-ECM	CRR-ECM	CRSL CRSL-ECM	SK SK-ECM	CCN CCN-ECM	CVP CVP-ECM	MVI
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A company of Arbonia Group
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