

CWX 3 - CWX 5

CASSETTE TYPE TERMINAL UNIT



		Cooling	Heating
CWX 3	2 pipes	2.60 kW	3.49 kW
	2 pipes + electric heating	2.08 kW	2.96 kW + 1.25 kW
	4 pipes	2.08 kW	1.51 kW
CWX 5	2 pipes	4.70 kW	5.70 kW
	2 pipes + electric heating	4.23 kW	5.13 kW + 2.50 kW
	4 pipes	3.76 kW	2.33 kW

CE MARKING

This product marked CE conforms to the essential requirements of the Directives:

- Low voltage no. 2006/95/EC.
- Electromagnetic Compatibility no. 89/336 EEC, modified 92/31 and 93/68 EEC.



SUMMARY

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1 - PRESENTATION

1.1 - USE

- Unit intended for climate control in buildings and the comfort of people.
- Do not place the device in rooms with high humidity or exposed to projections of water.

1.2 - FUNCTIONS

- Cooling or heating by means of a 2-pipe water coil.
- Additional electric heating (model BE) or with additional hot water coil (model BW).
- Ventilation with filtration (built-in filter).

1.3 - APPLICATIONS

- This unit was designed for installation in locations such as offices, businesses and hotels.

1.4 - MODELS

- "2 tubes" for all sizes, with wire or infrared remote control: CWX B 5B and CWX B 5X.
- "2 tubes + electric heating" for all sizes, with wire remote control only: CWX BE 5B.
- "4 tubes" (with additional battery) for all sizes, with wire remote control only: CWX BW 5B.

2 - TECHNICAL CHARACTERISTICS

2.1 - NOMINAL CONDITIONS

Model				CWX 3 B	CWX 3 BE	CWX 3 BW	CWX 5 B	CWX 5 BE	CWX 5 BW
Total cooling capacity	(1)	HS	kW	2.60	2.08	2.08	4.70	4.23	3.76
		MS	kW	2.35	1.88	1.88	4.10	3.69	3.28
		LS	kW	2.15	1.72	1.72	3.60	3.24	2.88
Sensible cooling capacity	(1)	HS	kW	2.31	1.85	1.85	3.72	3.35	2.98
		MS	kW	2.09	1.67	1.67	3.21	2.89	2.56
		LS	kW	1.91	1.53	1.53	2.80	2.52	2.24
Heating capacity	(2)	HS	kW	3.49	2.96	---	5.70	5.13	---
		MS	kW	3.11	2.64	---	4.85	4.37	---
		LS	kW	2.83	2.40	---	4.35	3.92	---
Electric heating capacity			kW	---	1.25	---	---	2.50	---
Heating capacity additional hot water coil	(3)	HS	kW	---	---	1.51	---	---	2.33
		MS	kW	---	---	1.34	---	---	1.98
		LS	kW	---	---	1.22	---	---	1.78
Air flow rate	HS		m ³ /h	520	520	520	750	750	750
			m ³ /s	0.144	0.144	0.144	0.208	0.208	0.208
	MS		m ³ /h	460	460	460	630	630	630
			m ³ /s	0.128	0.128	0.128	0.175	0.175	0.175
	LS		m ³ /h	400	400	400	530	530	530
			m ³ /s	0.111	0.111	0.111	0.147	0.147	0.147
Water flow rate in cooling	(1)	HS	l/h	447	358	358	790	728	647
Additional water flow rate	(3)	HS	l/h	---	---	108	---	---	167
Pressure drop on water in cooling mode	(1)	HS	kPa	22	22	22	42	42	42
Pressure drop on water in heating mode	(2)	HS	kPa	18	18	---	33	33	---
Pressure drop on water in add. HWC	(3)	HS	kPa	---	---	18	---	---	33
Pressure drop of the valve		HS	kPa	8	5	5	26	21	16
Pressure drop of the additional HWC valve		HS	kPa	---	---	0.5	---	---	1
Power supply			V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Max. power consumption		HS	kW	0.060	1.310	0.060	0.090	2.590	0.090
Max. current consumption		HS	A	0.25	5.70	0.25	0.40	11.30	0.40
Hydraulic connection			1/2" gas female	●	●	●	●	●	●
Sound power level		HS	dBA	46	46	46	55	55	55
		MS	dBA	43	43	43	51	51	51
		LS	dBA	40	40	40	48	48	48
Sound pressure level (at 2 m indoors)		HS	dBA	37	37	37	46	46	46
		MS	dBA	34	34	34	42	42	42
		LS	dBA	31	31	31	39	39	39

(1) Air inlet: 27°C (DB) / 19°C (WB) - Water inlet: 7°C - Water outlet: 12°C.

(2) Air inlet: 20°C - Water inlet 50°C (same flow-rate as under other conditions (1) (2-pipes)).

(3) Air inlet: 20°C - Water inlet 70°C (4 pipes) - Water outlet: 60°C (4 pipes).

2.2 - OTHER CONDITIONS

• Consult us.

• **Operating limits:**

- Minimum water inlet temperature : 4°C.

- Maximum water inlet temperature : 60°C for the main coil,
80°C for the additional hot water coil.

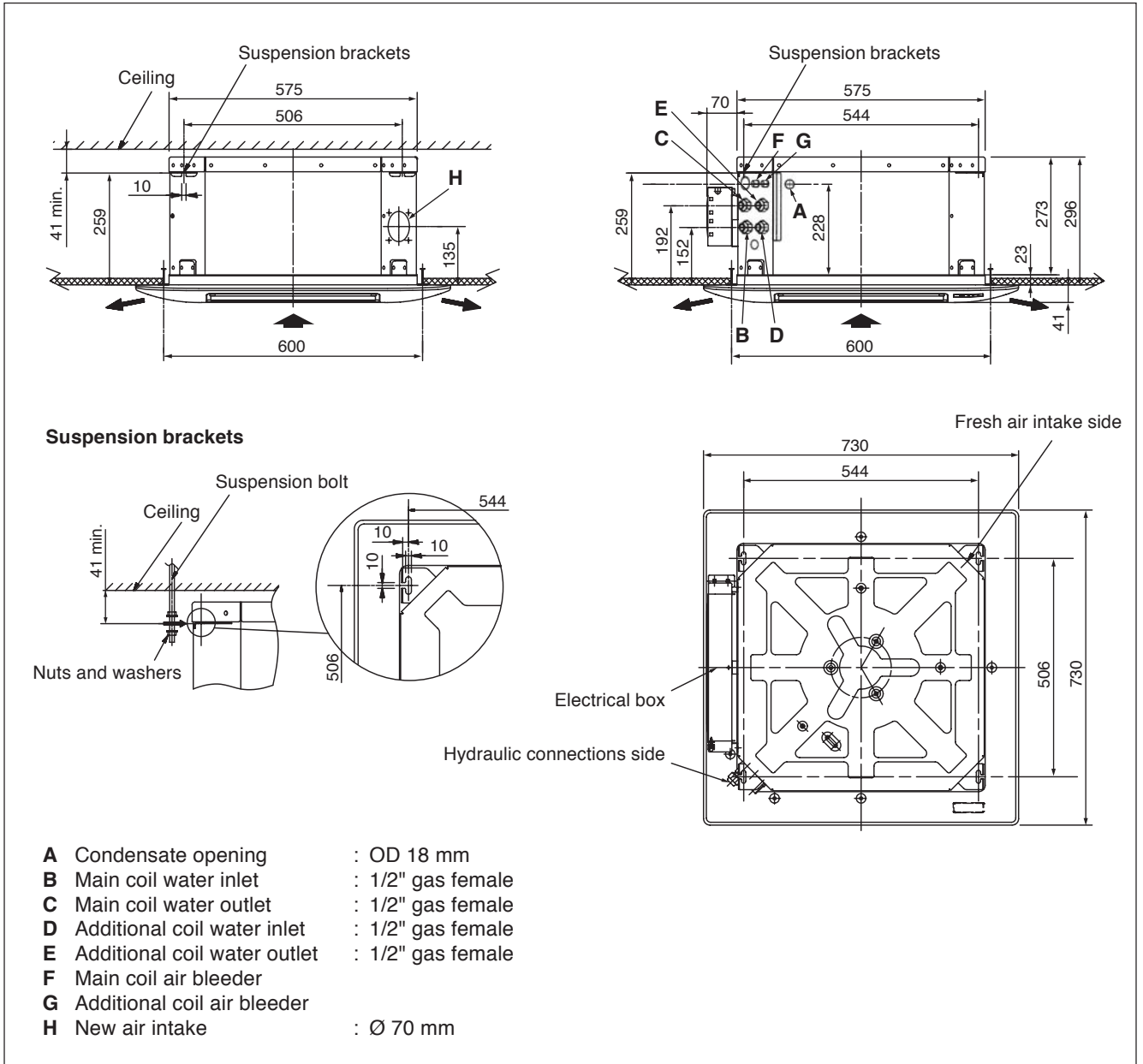
Note: For reasons relating to comfort (homogeneity of the air temperature in the room), not exceeding a water inlet temperature of 55°C in the main coil is recommended.

- Maximum operating pressure of the hydraulic circuit : 16 bar.

- Minimum air recirculation temperature : 5°C.

- Maximum air recirculation temperature : 32°C.

3 - PHYSICAL CHARACTERISTICS



NET WEIGHT

	Model	
	CWX 3	CWX 5
Unit	18 kg	20 kg
Front panel / grille assembly	2.5 kg	2.5 kg

PACKED UNITS

			Model	
			CWX 3	CWX 5
Unit	length	mm	744	744
	width	mm	650	650
	height	mm	380	380
	weight	kg	20	22
Front panel	length	mm	800	800
	width	mm	800	800
	height	mm	110	110
	weight	kg	4	4

4 - DESCRIPTION

4.1 - ALL MODELS

Model		CWX 3	CWX 5
Construction			
Material		Galvanised steel	Galvanised steel
Polyethylene insulation		3 mm exterior	3 mm exterior
Front panel material		Polystyrene	Polystyrene
Front panel colour		RAL 9001	RAL 9001
Electric box protection		IP 20	IP 20
Copper/aluminium thermal exchanger			
Number of rows		1	2
Frontal surface area	m ²	0.272	0.272
Pitch between fins	mm	1.3	1.3
Water capacity	litres	0.43	0.86
Connections		1/2" gas female	1/2" gas female
Manual air bleeder		●	●
Motor			
Power supply	220V/1/50Hz	●	●
Number		1	1
Internal thermal protection		●	●
Class		F	F
Number of poles		4	4
Rotation speed (at high speed)	rpm	620	890
Max. power consumption	kW	0.040	0.075
Max. current consumption	A	0.25	0.40
Fan			
Type		Centrifugal	Centrifugal
Number		1	1
Diameter	mm	280	280
Length	mm	175	175
Air filter			
Polypropylene, class HB (UL 94) – Washable		●	●
Number		1	1
Condensate pump			
Power supply	220V/1/50Hz	●	●
Nominal flow rate	litres/hour	24	24
Lift height above the unit	mm	250	250
Power consumption	kW	0.014	0.014
Fresh air intake (knock-out)			
Number		1	1
Connection diameter	mm	70	70
Wire remote control version			
Infrared remote control version			

4.2 - MODEL WITH ELECTRIC HEATING RESISTANCE (2 pipes + electric heating)

Model		CWX 3 BE	CWX 5 BE
Supplementary electric resistance			
Shielded type, built into the exchanger		●	●
Number		1	2
Power	kW	1,25	2,50
Current consumption	A	5,4	10,8
Safety thermostats			
Automatic reset	Cut off 75°C	●	●
Manual reset	Cut off 95°C	●	●
Wire remote control version			

4.3 - MODEL WITH ADDITIONAL HOT WATER COIL (4 pipes)

Model		CWX 3 BW	CWX 5 BW
Number of exchanger tubes used for the additional coil		2	4
Connections		1/2" gas female	1/2" gas female
Manual air bleeder		●	●
Wire remote control version			

5 - ACCESSORIES

5.1 - 3-WAY VALVE + BY-PASS

- **Code 70600088.**
- This valve kit can be mounted on all models **and is obligatory for cold water use.**
- If this valve is not installed there is a risk of the condensate tray overflowing when the machine is switched off by the thermostat or if the condensate pump breaks down.
- An auxiliary condensate tray (for the valve) is delivered as standard with the units.
- For the 4-pipe versions, 2 kits are required.
- Characteristics:
 - Connection: 1/2" male gas (the valve is supplied with the connections for installation directly on the unit's outlet).
 - Kvs: 1.6.
 - "On/Off" 230V thermal actuator.
 - Open time: 3 min.

5.2 - REMOTE CONTROLS (for the wire remote control version)

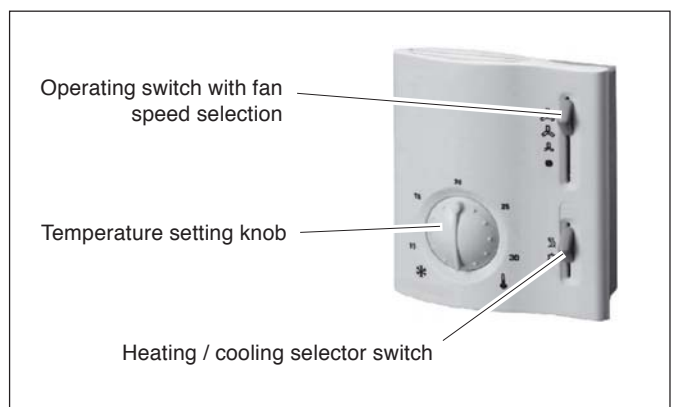
Model	CWX 3 B	CWX 3 BE	CWX 3 BW	CWX 5 B	CWX 5 BE	CWX 5 BW
70250076						
Manual remote control						
Control on valve (s)	●	---	●	●	---	●
Control on cooling valve + electrical resistance	---	●	---	---	●	---
70250051						
RCC 10 automatic remote control for 2-pipe units	●	---	---	●	---	---
70250052						
RCC 20 automatic remote control for 2-pipe units + electrical resistance or 4-pipe	---	●	●	---	●	●
70250053						
Change/over sensor or air recirculation with bracket for RCC	●	●	●	●	●	●
70250054						
Air temperature sensor in box for RCC	●	●	●	●	●	●

Note: "On-Off" action on valve, 230 VAC (accessory).

A - MANUAL REMOTE CONTROL

- **Code 70250076.**
- The operating mode is selected **manually** by a switch on the front of the control unit.

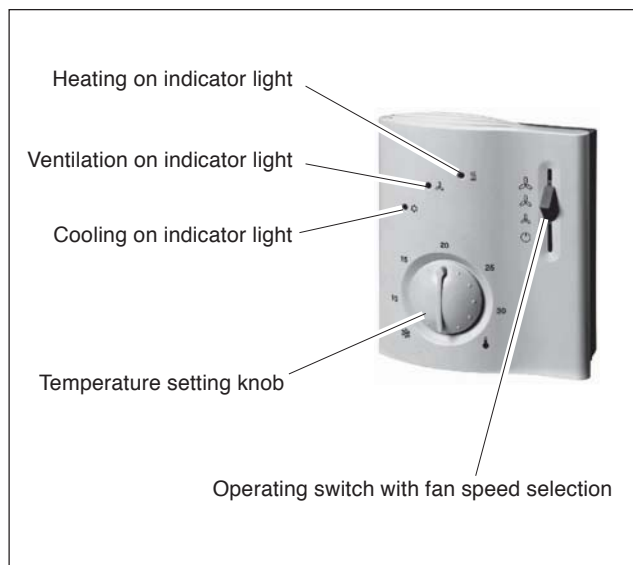
- | | |
|---|----------------------------|
| • Technology | : electromechanic. |
| • Power supply | : 230 Vac |
| • Set-point adjustment range: 8 / 30°C
(possibility of mechanical limitation by jumpers on the knob) | |
| • "On-Off" action | |
| • Control differential | : $\leq 1^{\circ}\text{K}$ |
| • Operating temperature | : 0 / 50°C |
| • Relative humidity | : < 95% |
| • Protection class | : cl. II |
| • IP | : 30 |
| • Colour | : White RAL 9003 |



B - AUTOMATIC REMOTE CONTROLS

- **Type RCC 10 - code 70250051 and type RCC 20 - code 70250052**
- Selection of the operating mode is done **automatically**.
- **For the 2-pipe units** capable of heating and cooling operation, a change-over sensor must be connected (accessory, code 70250053) to the installation on the water piping.
This change-over sensor can be replaced by a potential-free contact (not supplied), the closing of which causes changeover to cooling mode.
- There is a possibility to connect a remote air temperature sensor , bare (accessory, code 70250053) or box mounted (accessory, code 70250054).
- Permanent or slaved ventilation.
- Mode change is possible (Eco or Stand-by) by an external potential-free contact (not supplied).

- | | |
|---|--|
| • Technology | : electronic. |
| • Power supply | : 230 Vac |
| • Set-point adjustment range: 8 / 30°C
(possibility of mechanical limitation by jumpers on the knob) | |
| • "On-Off" action | |
| • Heating differential | : adjustable 1 or 4 ^K |
| • Cooling differential | : adjustable 0.5 or 2 ^K |
| • Neutral zone (on RCC 20) | : adjustable 2 or 5 ^K |
| • Setpoint in "Eco" mode | : 16°C in heating mode
28°C in cooling mode |
| • Setpoint in "Standby" | : 8°C in heating mode |
| • Operating temperature | : 0 / 50°C |
| • Relative humidity | : < 95% |
| • Protection class | : cl. II |
| • IP | : 30 |
| • Colour | : White RAL 9003 |



C - TEMPERATURE PROBE (BARE) - code 70250053

- For RCC type remote control.
- 2 possible uses:
 - change over probe (equipped with a tube retaining clip) for "2-tube" appliances may operate in heating and cooling mode,
 - air temperature probe (to be placed on the air intake).
- Thermistance type CTN 3 k Ω at 25°C.
- IP 65 - protection class: cl. II.

D - BOX-MOUNTED AIR TEMPERATURE PROBE - code 70250054

- For RCC remote controls.
- Enables the control unit to be placed outside the room to be air conditioned.
- Thermistance type CTN 3 k Ω at 25°C.
- The unit is mounted in a box similar to the remote control (IP 30 - protection class: cl. II - colour: white RAL 9003).



Due to our policy of continuous development, our products are liable to modification without notice.

Technibel

R.D. 28 Reyrieux BP 131 01601 Trévoux CEDEX France
Phone 33 4 74 00 92 92 - Fax 33 4 74 00 42 000
R.C.S. Bourg-en-Bresse B 759 200 728