

EBERLE FC PLUS



Electronic universal controllers for fan coils

Description

FCPLUS is a family of universal thermostats designed to control valves with on-off actuators, any electrical heaters and the three fan speeds.

Once the unit has been set correctly,

FCPLUS can be used to control the following fan coil units:

- 2 pipes;
- 2 pipes with electric heaters;
- 4 pipes.

Typical applications are:

- Household;
- Residential;
- Small commercial areas (offices, hospitals, hotels).

Installations:

- independent wall thermostat;
- ceiling-mounted installations;
- floor-mounted fan coil installations;

in all cases, automatic control of the three fan speeds based on the offset between the ambient temperature and the set point is possible.

Main characteristics:

- One range that is now even more comprehensive with a simple modern design;
- One controller for a variety of system requirements;
- Easy to use and install;
- Less risk of damaging electronics;
- Maximum focus on comfort and energy savings;
- Functions:
 - Hot Start and Too Cool;
 - Post Ventilation and Periodic Ventilation.
- Economy input or Window Contact;
- Automatic fan speed;
- Low noise level with solid state technology (TRIAC);
- Range control using special pegs;
- Remote air probe (optional accessory);
- Vertically installed for easier on board-installation;
- Operating and probe alarm LEDs;
- Attention to specific requirements:
 - Manufacturers: adaptable to specific requirements;
 - Distributors: universality reduces stock-holding requirements;
 - Installers: easy to install and less risk of damaging electronics;
 - End-user: simple and intuitive to give maximum comfort and accuracy with a focus on saving energy.

Models

Other models are available covering a wide range of applications and installations.

	<p>FP U320/B The ideal model for wall-mounting; automatically controlled fan speed</p>
	<p>FP U32E/B Basic model with economy input</p>
	<p>FP U32W/B Basic model with window contact (Window Contact)</p>
	<p>FP U320/S Universal model with remote probe inputs</p>
	<p>FP U32E/S Universal model with economy input that moves the set points to 14 ° C during winter operation and 28 ° C during summer operation if enabled</p>
	<p>FP U32W/S Universal model with window contact: when enabled it puts the controller on stand-by as long as the window stays open.</p>



Characteristics

Model	FP U320/B	FP U32E/B	FP U32W/B	FP U320/S	FP U32E/S	FP U32W/S
Part Number	FP10B0000200	FP1EB0000200	FP1WB0000200	FP10B0000200	FP1EB0000200	FP1WS000200
Application						
2 pipes	*	*	*	*	*	*
2 pipes with integrated electric heaters	*	*	*	*	*	*
2 pipes with regulated electric heaters	*	*	*	*	*	*
4 pipes	*	*	*	*	*	*
Installation						
Wall-mounted	(*)	(*)	(*)	(*)	(*)	(*)
Device-mounted — ceiling	*	*	*	*	*	*
Device-mounted - floor	*	*	*	*	*	*
Inputs/Outputs						
Digital Inputs	-	1	1		1	1
Air probe	1	1	1	1	1	1
Remote air probe (not supplied)	-	-	-	1	1	1
Remote water probe (not supplied)	-	-	-	1	1	1
Triac output 230V~ FANS	3 (1 A max)	3 (1 A max)	3 (1 A max)	3 (1 A max)	3 (1 A max)	3 (1 A max)
Triac output 230V~ VALVE	2 (0.5 A max)	2 (0.5 A max)	2 (0.5 A max)	2 (0.5 A max)	2 (0.5 A max)	2 (0.5 A max)
LEDs	3	3	3	3	3	3
Functions						
Hot Start				**	**	**
Too Cool				**	**	**
Economy input (/E)		•			•	
Window Contact (/W)			•			•
Operating/probe alarm LEDs	•	•	•	•	•	•

• compatible

* dip-switch selectable

** only if remote water probe is present

(*) system configuration (wall-mounted) automatically identified if the remote air probe is not installed

Characteristics common to all models

Functions

manual change-over

automatic change-over

Post Ventilation

Periodic Ventilation

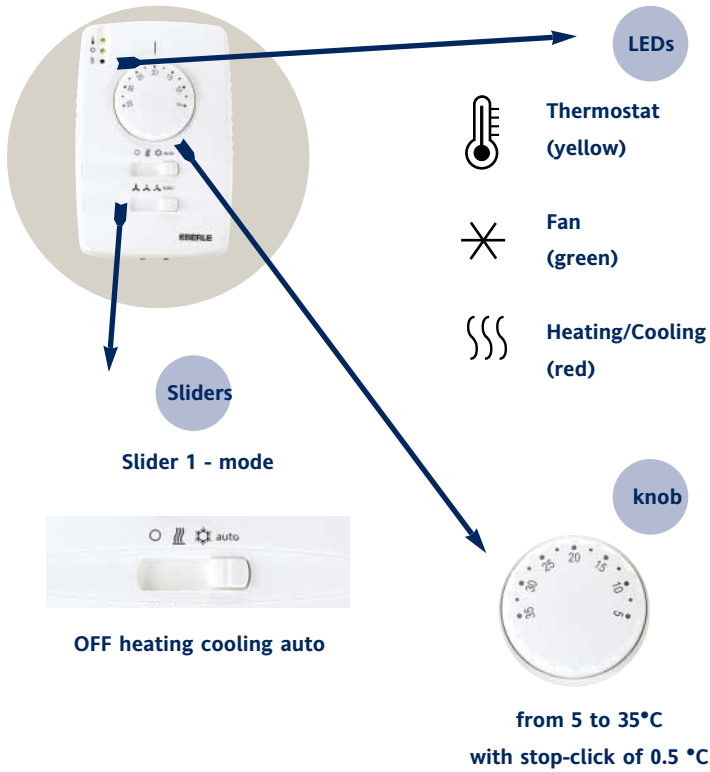
Automatic speeds

Control of set point

Regulation of valves/fans

Number Model	Code FP	Description Fan Coil PLUS
1°	U	Universal model, fan coil system with 2 or 4 pipes selectable (with dip-switch)
2°	3	2 slide switches: Off / Heating / Cooling / Automatic & Ventilation Low / Medium / High / Automatic
3°	2	Heating Mode (electric heaters) present selectable (with dip-Switch)
4°	0	No voltage input
	E	Economy input present
	W	Window Contact input present
5°	/B	Basic Model — without remote probes
	/S	Model with remote water and air probe inputs

User interface



OFF heating cooling auto

Slider 2 — fan speed



high medium low auto

Technical Data

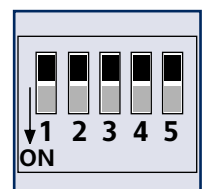
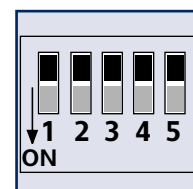
- Power supply: 230V~ 50/60Hz
- Electrical data for 230V output: 0.5 A max for valve outputs and 1 A max for fan outputs
- Insulation class: II
- Protection class: IP30
- Analogue inputs: 1 (+1) NTC probes
 - remote air probe (optional); cover 4.7 X 27 mm; plastic resin tube; length of cable: 1.5 m
 - remote water probe (optional); cover 6 X 23 mm; plastic resin tube; length of cable: 2 m
- Unit dimensions: 80x120x40 mm
- Mounting: wall-mounted, device-mounted (floor or ceiling)
- Colour of casing:
 - Front: white;
 - Base unit: white.
- Connections: screw terminal block for wires with 2.5 mm maximum diameter²
- Ambient temp.: 0...55 °C
- Storage temp.: -20...85 °C
- Compliance: CE LV-EMC compliant

Dip Switch Table

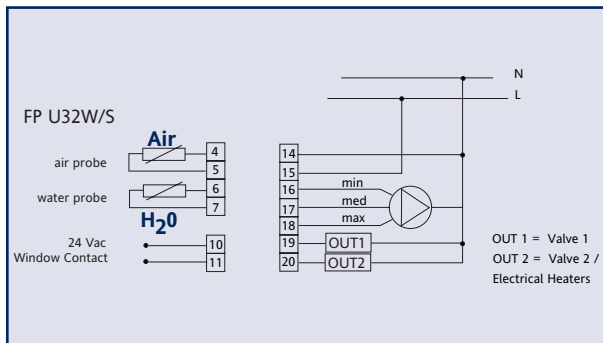
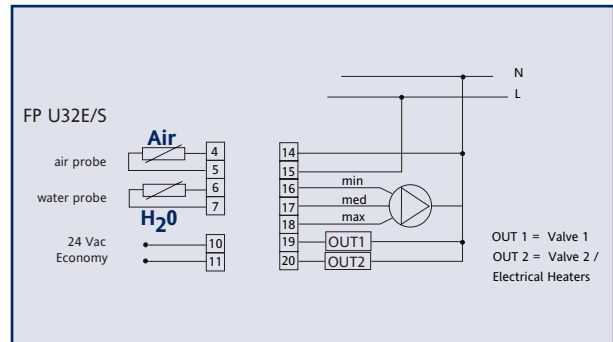
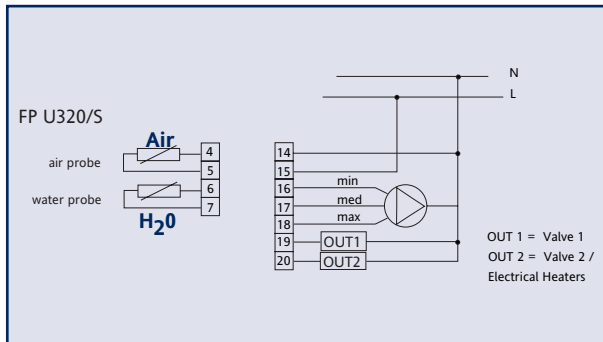
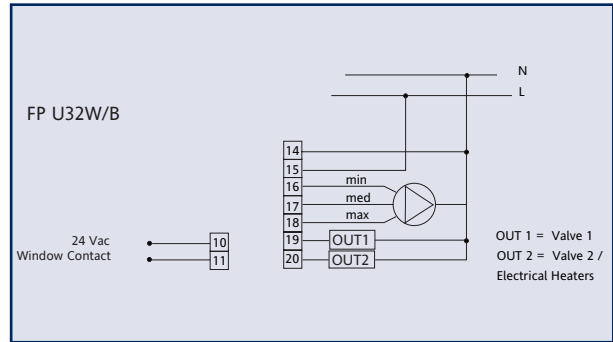
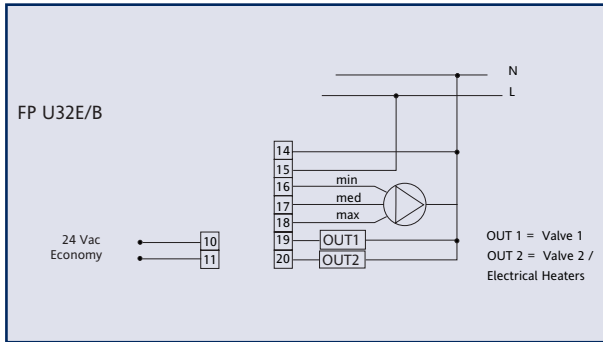
DIP NUMBER	Description	ON	OFF
1	Type of installation	ceiling-mounted	floor-mounted
2	Fan	continuous (1)	on request (2)
3	Thermostat control	on valve	on fan
4 and 5	Type of unit		
	•2 pipes without electric heaters	-	4,5
	•2 pipes with integrated electric heaters	4,5	-
	•2 pipes with regulated electric heaters	5	4
	•4 pipes	4	5

- (1) no Hot Start and Too Cool.
 (2) on request in heating mode;
 continuous in cooling mode.

Dip Switch



Wiring diagram



- /S** with probe(s)
- E** Economy
- W** Window Contact

Legend

Air air probe (remote)
H₂O water probe (remote)

24 Vac Power supply 24V
 Window Contact window contact
 Economy Economy
 OUT1 Valve 1
 OUT2 Valve 2/Electrical Heaters

Power supply 24V
 window contact
 Economy
 Valve 1
 Valve 2/Electrical Heaters

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Accessories

PROBES



Remote water probe

SN8PAA1500 NTC probe, PVC cable, plastic resin AISI 304 tube with reinforced insulation (metal) 1.5 m long metal cover 6X40



Remote air probe

SN8PCL1500 NTC probe with plastic resin tube with reinforced insulation 6X40 PVC cable 1.5 m long; plastic cover 7X24.5