Constant pressure control

EBC24

The Exodraft EBC24 is a true PID-based fan speed control used to maintain a constant pressure or draught in a flue/duct system. It can only be used with Exodraft fans.

The control automatically adjusts the speed based on the amount of exhaust gasses in the flue.

EBC24 can control the fan speed on a single phase AC motor directly (1x230V) or a threephase motor indirectly via a VFD (variable frequency drive) that adjusts the motor speed.

The control has an integrated safety system to assure that heating appliances connected to the flue system will be shut down in case of insufficient draught. This ensures safe operation at all times, regardless of external factors (e.g. weather conditions).

The EBC24 control is not restricted to any type of fuel, heating appliance or chimney. The unit features “plug-and-play” to automatically monitor all terminals and register components attached to the control during initial start-up.

It comes preprogrammed from the factory, but can be further programmed in the field using the LCD 128x64 dot display and buttons.

The EBC24 has two heating appliance interlock circuits as standard but can be expanded in multiples of four with the use of additional relay boards (ES12).

A self-diagnostic panel with LEDs monitors all connection terminals for easy service and troubleshooting. Provided the integrated safety system is satisfied, interlocked heating appliances are allowed. Programming or reading out data is done via a USB port.

The EBC24 has an alarm output for a BMSsystem. An alarm via a buzzer can also be made through the buzzer output. The EBC24 has terminals for connecting a RS485 communication BUS.

Features

- Input and output to 2 boilers (standard)
- Easy to install
- Operational conditions monitored on all input and outputs using diodes
- Integrated safety system
- RS485 interface for Modbus communication

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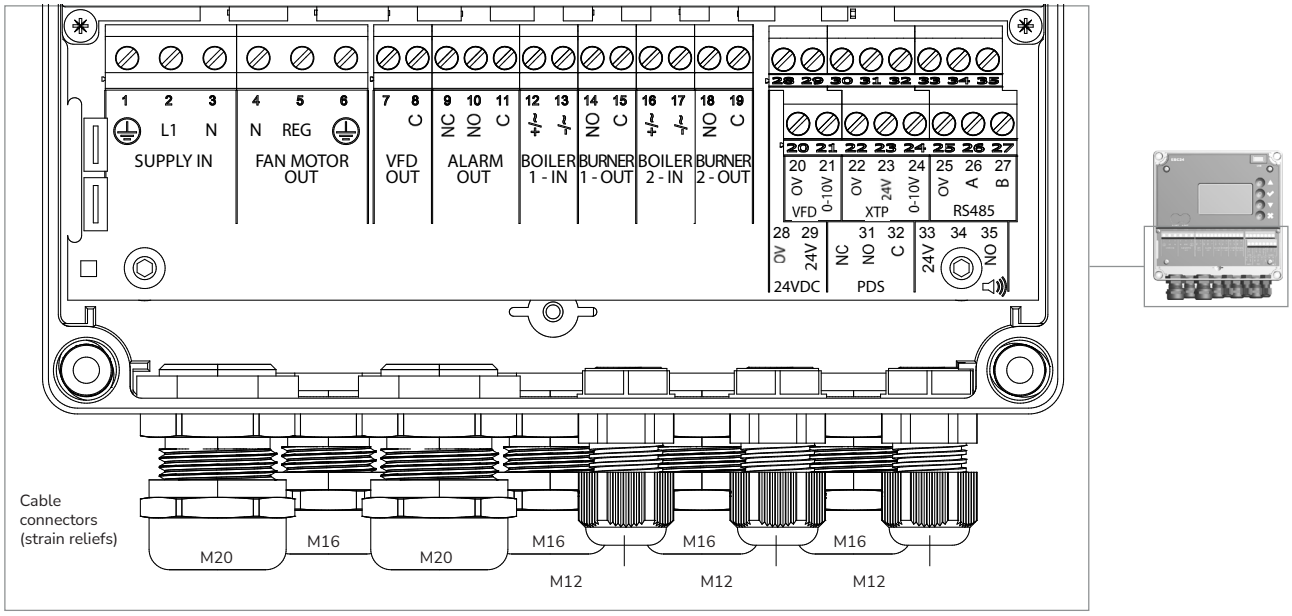
Models

	EBC24EU01	EBC24EU02	Terminal
Front cover	Transparent (indoor installation)	Grey (outdoor installation)	
Power supply IN [V]	1x 230 V / 50 Hz	1x 230 V / 50 Hz	1, 2, 3
Fan max. power consumption [W]	600	600	4, 5, 6
Fan max. motor load [kW/hp] (Output Power)	0.35 / 0.5	0.35 / 0.5	4, 5, 6
Output TRIAC [VAC]	10-230	10-230	4, 5, 6
VFD relay	230 VAC/2A AC1 - 24VDC/2A DC1	230 VAC/2A AC1 - 24VDC/2A DC1	7, 8
Control and alarm relay	230 VAC/4A AC1 - 24 VDC/2A DC1	230 VAC/4A AC1 - 24 VDC/2A DC1	9, 10, 11, 14, 15, 18, 19
Boiler inputs	10-48 VDC / 10-230 VAC	10-48 VDC / 10-230 VAC	12, 13, 16, 17
Control signal VFD [VDC/mA]	0-10 / max. 10	0-10 / max. 10	20, 21
Selections of pressure [Pa] with XTP-150 (default)	0-150 (0-250)	0-150 (0-250)	22, 23, 24
Sensor range [Pa]	500 g +500	500 g +500	22, 23, 24
Max sensor load [mA]	80 max.	80 max.	22, 23, 24
24V VDC power supply [mA]	100 max.	100 max.	28, 29
24V buzzer signal [mA]	80 max.	80 max.	33, 34,35
IP-rating	IP 54	IP 54	
Fuse [A]	4.0T	4.0T	
Operating temperature [°C]	-20 to 50	-20 to 50	



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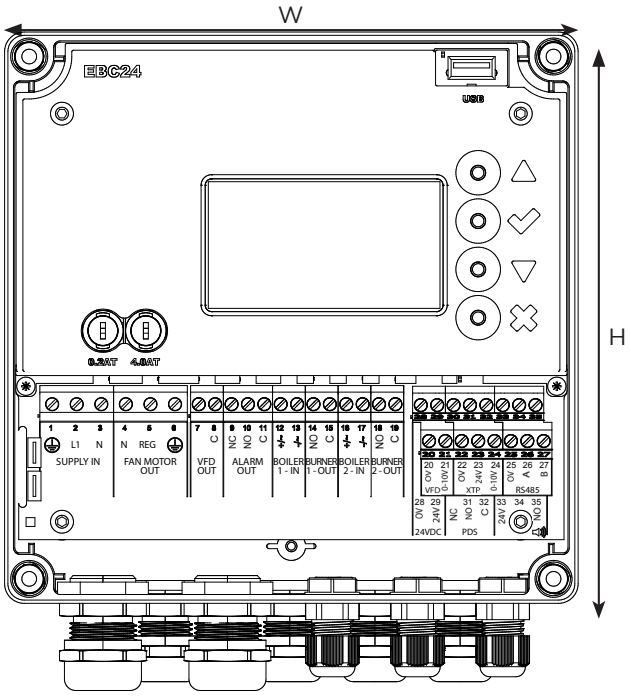
Dimensions

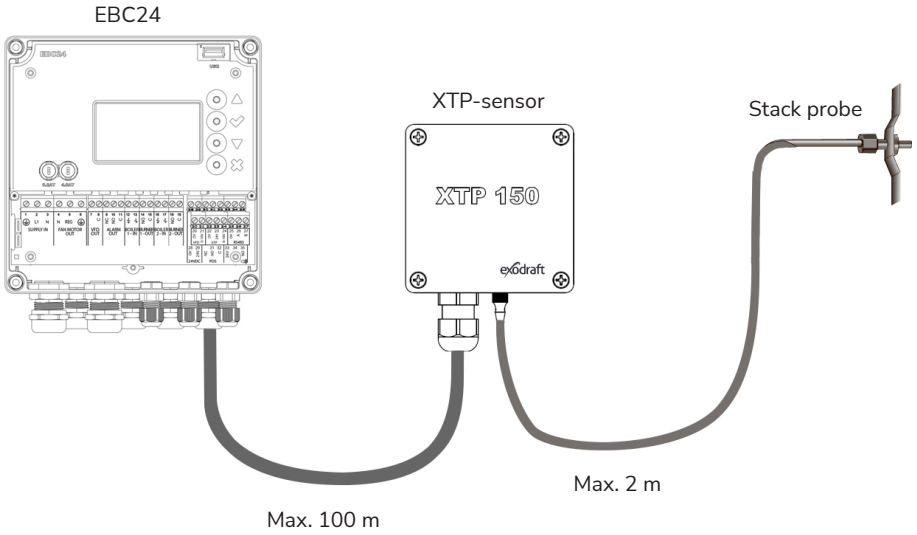
	EBC24EU01	EBC24EU02
(W)idth [mm]	175	175
(H)eight [mm]	175	175
Depth [mm]	110	110
Weight [kg]	1.5 kg	1.5 kg



XTP-150 sensor*

Power supply [VDC]	24 VDC (+/- 15%)
IP-Rating	IP 54
Output [VDC]	0-10 VDC, max. 10 mA
Operating temperature [°C] -	-25 to 50
Tolerance [Pa]	+/- 5%
Dimensions [mm]	80 x 82 x 55.5

*The XTP-150 sensor is a pressure transducer (supplied with EBC24) to be used in conjunction with an EBC24 unit and a stack probe. It is positioned near the chimney and measures the pressure in the chimney, allowing the EBC24 to control the chimney draught.



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