EXHAUSTO

Modulating Pressure Control EBC 30

Use

The EBC 30 is a draft or pressure control device that can monitor and maintain a constant draft or pressure by varying the speed of a fan(s) or the position of an actuator. It can be used with EXHAUSTO models RS, RSV, RSIF, BESF, BESB and MDF.

Typical uses are: 1) Controlling draft in a mechanical draft system serving boilers and water heaters, 2) Controlling position of an over-draft damper serving boilers and water heaters, 3) Controlling duct pressure in a dryer venting system or a ventilation system, or 4) Controlling the supply of combustion air to a mechanical room.

Description

The EBC 30 features "Plug-n-Play" to automatically detect connections, setting requirements and accessories during initial start-up. A rotation check feature makes it easy to determine the rotation of a 3-phase fan motor.

The control can provide a 0-10V signal to a Variable Frequency Drive (VFD) or actuator. An add-on board can supply 0-120VAC power directly to the mechanical draft fan or air supply ventilator. It can interlock with up to 6 heating appliances, and an unlimited number of additional heating appliances can be handled by using one or more ES12, Relay Box. An integrated Proven Draft Switch function assures that if sufficient draft cannot be maintained, the control will lock out the appliance(s) within an adjustable time period. Automatic reset avoids nuisance lockouts and the need for manual reset.

The EBC 30 can be set up for intermittent operation so it prepurges the stack prior to the boiler(s) start and post-purges up to 30 minutes after boiler stop. Alternatively, it can be set up for continuous operation where the fan runs continuously but modulates and runs at idle speed, if no appliances are operating.

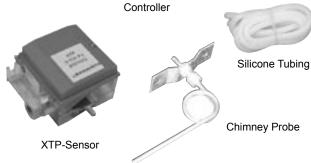
The programmable processor allows manual overrides, manual functionality; low and high limit fan speeds. An Operating Priority set up option allows one or more appliance to operate during electrical or mechanical failure of the fan(s) provided the draft requirement can be met and safe operation assured. It automatically checks for fan operation every two hours and goes back to normal operation, if appropriate.

A bearing cycle program activates the fan(s) for up to 3 minutes in case the fan(s) has not been operating for a week.

Required draft and pressures can be maintained and shown via a LCD-panel. A self-diagnostics panel with LED-diodes verifies proper operation. The control maintains an error log including the last 10 fault codes.

The control has 53 programmable functions and an RS-232 connection to a Building Management System. The control can be factory or field programmed to meet "Sequence-of-Operation" requirements for Over-Draft Controls as well as Draft Equipment.





Material

The housing is made in steel and is NEMA 1 rated.

Standard Equipment

Control box and XTP-Sensor with 6' silicone tubing and a stack probe.

Listings

ETL listing #1090205550D

UL508 and CSA C22.2 No. 14-95 – Standard for Industrial Control Equipment (ETL Report 3028824A)

Component in an ETL listed CASV System (ETL Report 045099A)

Component in an ETL listed MCAS System (ETL Report J99*18091-003)

Component in an ETL listed MDVS System (ETL Report J99*18091-004)

Component in an ETL listed MODS System (ETL Report 3028824A)

CE Compliant

Manufactured at ISO 9001 certified plant.

Warranty

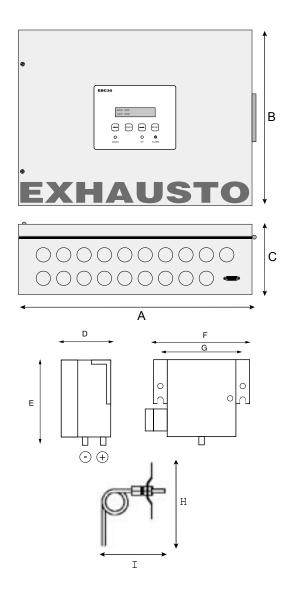
2-Year Factory Warranty





Specifications

Amperage A 6.3 Operating Temperature °F/°C -4 to 104/-20 to 50 Range of Operation inWC/Pa 0-0.6/0-150 Tolerance inWC/Pa 0.01/3 +/-10% Control Signal mA max. 10 Control Relay Max. 120 VAC/8A Output VAC 10-120 Output VDC 0-10 Dimensions A in/mm 14.65/372 B in/mm 11.03/280 C in/mm 4.22/107 Weight Ibs/kg 8.9/4.0 EMC Standard Emission EN 50 081-1 Immunity EN 50 082-2 XTP Sensor Power Supply VDC 0-24 Amperage mA <20 Output VDC 0-10 Operating Temperature °F/°C -4 to 115/-20 to 60 Tolerance inWC/Pa 0.01/3 +/-10% Dimensions D in/mm 4.7/120 E in/mm 3.7/95 F in/mm 5.3/134 G in/mm 3.9/100 Weight Ibs/kg 9/.4 Chimney Probe	EBC 30 Control		
Operating Temperature °F/°C -4 to 104/-20 to 50 Range of Operation inWC/Pa 0-0.6/0-150 Tolerance inWC/Pa 0.01/3 +/-10% Control Signal mA max. 10 Control Relay Max. 120 VAC/8A Output VAC 10-120 VDC 0-10 0-10 Dimensions A in/mm 14.65/372 B in/mm 11.03/280 0.00 C in/mm 4.22/107 Weight lbs/kg 8.9/4.0 EMC Standard Emission EN 50 081-1 Immunity EN 50 082-2 XTP Sensor Power Supply VDC Amperage mA <20 Output VDC 0-24 Amperage mA <20 Output VDC 0-10 Operating Temperature °F/°C -4 to 115/-20 to 60 Tolerance in/WC/Pa 0.01/3 +/-10% Dimensions D in/mm 3.9/100 Weight Ibs/kg .9/	Power Supply	V	1x120VAC
Range of Operation inWC/Pa 0-0.6/0-150 Tolerance inWC/Pa 0.01/3 +/-10% Control Signal mA max. 10 Control Relay Max. 120 VAC/8A Output VAC 10-120 Dimensions A in/mm 14.65/372 B in/mm 11.03/280 C in/mm 4.22/107 Weight Ibs/kg 8.9/4.0 EMC Standard Emission EN 50 081-1 Immunity EN 50 082-2 XTP Sensor Power Supply VDC 0-24 Amperage mA <20 Output VDC 0-10 Operating Temperature °F/°C -4 to 115/-20 to 60 Tolerance inWC/Pa 0.01/3 +/-10% Dimensions D in/mm 4.7/120 E in/mm 3.7/95 F in/mm 5.3/134 G in/mm 3.9/100 Weight Ibs/kg 9/.4 Chimney Probe Dimensions H in/mm 4.25/108	Amperage	Α	6.3
Tolerance inWC/Pa 0.01/3 +/-10% Control Signal mA max. 10 Control Relay Max. 120 VAC/8A Output VAC 10-120 Dimensions A in/mm 14.65/372 B in/mm 11.03/280 C in/mm 4.22/107 Weight Ibs/kg 8.9/4.0 EMC Standard Emission EN 50 081-1 Immunity EN 50 082-2 XTP Sensor Power Supply VDC 0-24 Amperage mA <20 Output VDC 0-10 Operating Temperature °F/°C -4 to 115/-20 to 60 Tolerance inWC/Pa 0.01/3 +/-10% Dimensions D in/mm 4.7/120 E in/mm 3.7/95 F in/mm 5.3/134 G in/mm 3.9/100 Weight Ibs/kg .9/.4 Chimney Probe Dimensions H in/mm 4.25/108	Operating Temperature	°F/°C	-4 to 104/-20 to 50
Control Signal mA max. 10 Control Relay Max. 120 VAC/8A Output VAC 10-120 VDC 0-10 Dimensions A in/mm 14.65/372 B in/mm 11.03/280 C in/mm 4.22/107 Weight Ibs/kg 8.9/4.0 EMC Standard Emission EN 50 081-1 Immunity EN 50 082-2 XTP Sensor Power Supply VDC Power Supply VDC 0-24 Amperage mA <20	Range of Operation	inWC/Pa	0-0.6/0-150
Control Relay Max. 120 VAC/8A Output VAC 10-120 VDC 0-10 14.65/372 B in/mm 11.03/280 11.03/280 C in/mm 4.22/107 Weight Ibs/kg 8.9/4.0 EMC Standard Emission EN 50 081-1 Immunity EN 50 082-2 XTP Sensor Power Supply VDC Amperage mA <20	Tolerance	inWC/Pa	0.01/3 +/-10%
Output VAC 10-120 VDC 0-10 Dimensions A in/mm 14.65/372 B in/mm 11.03/280 C in/mm 4.22/107 Weight Ibs/kg 8.9/4.0 EMC Standard Emission EN 50 081-1 Immunity EN 50 082-2 XTP Sensor Power Supply VDC Power Supply VDC 0-24 Amperage mA <20	Control Signal	mA	max. 10
VDC 0-10 Dimensions A in/mm 14.65/372 B in/mm 11.03/280 C in/mm 4.22/107 Weight Ibs/kg 8.9/4.0 EMC Standard Emission EN 50 081-1 Immunity EN 50 082-2 XTP Sensor Power Supply VDC Power Supply VDC 0-24 Amperage mA <20	Control Relay		Max. 120 VAC/8A
Dimensions	Output	VAC	10-120
B in/mm		VDC	0-10
C in/mm 4.22/107 Weight Ibs/kg 8.9/4.0 EMC Standard Emission EN 50 081-1 Immunity EN 50 082-2 XTP Sensor Power Supply VDC 0-24 Amperage mA <20 Output VDC 0-10 Operating Temperature °F/°C -4 to 115/-20 to 60 Tolerance inWC/Pa 0.01/3 +/-10% Dimensions D in/mm 4.7/120 E in/mm 3.7/95 F in/mm 5.3/134 G in/mm 3.9/100 Weight Ibs/kg .9/.4 Chimney Probe Dimensions H in/mm 4.25/108	Dimensions	A in/mm	14.65/372
Weight Ibs/kg 8.9/4.0 EMC Standard Emission EN 50 081-1 Immunity EN 50 082-2 XTP Sensor Power Supply VDC Power Supply VDC 0-24 Amperage mA <20		B in/mm	11.03/280
EMC Standard Emission EN 50 081-1 Immunity EN 50 082-2 XTP Sensor Power Supply VDC Power Supply VDC 0-24 Amperage mA <20		C in/mm	4.22/107
Immunity	Weight	lbs/kg	8.9/4.0
XTP Sensor Power Supply VDC 0-24 Amperage mA <20	EMC Standard	Emission	EN 50 081-1
Power Supply VDC 0-24 Amperage mA <20		Immunity	EN 50 082-2
Amperage mA <20 Output VDC 0-10 Operating Temperature °F/°C -4 to 115/-20 to 60 Tolerance inWC/Pa 0.01/3 +/-10% Dimensions D in/mm 4.7/120 E in/mm 3.7/95 F in/mm 5.3/134 G in/mm 3.9/100 Weight lbs/kg .9/.4 Chimney Probe Dimensions H in/mm 4.25/108	XTP Sensor		
Output VDC 0-10 Operating Temperature °F/°C -4 to 115/-20 to 60 Tolerance inWC/Pa 0.01/3 +/-10% Dimensions D in/mm 4.7/120 E in/mm 3.7/95 F in/mm 5.3/134 G in/mm 3.9/100 Weight Ibs/kg .9/.4 Chimney Probe Dimensions H in/mm 4.25/108	Power Supply	VDC	0-24
Operating Temperature °F/°C -4 to 115/-20 to 60 Tolerance inWC/Pa 0.01/3 +/-10% Dimensions D in/mm 4.7/120 E in/mm 3.7/95 F in/mm 5.3/134 G in/mm 3.9/100 Weight Ibs/kg 9/.4 Chimney Probe Dimensions H in/mm 4.25/108	Amperage	mA	<20
Tolerance inWC/Pa 0.01/3 +/-10%	Output	VDC	0-10
Dimensions D in/mm 4.7/120 E in/mm 3.7/95 F in/mm 5.3/134 G in/mm 3.9/100 Weight Ibs/kg .9/.4 Chimney Probe Dimensions H in/mm 4.25/108	Operating Temperature	°F/°C	-4 to 115/-20 to 60
E in/mm 3.7/95 F in/mm 5.3/134 G in/mm 3.9/100 Weight Ibs/kg .9/.4 Chimney Probe Dimensions H in/mm 4.25/108	Tolerance	inWC/Pa	0.01/3 +/-10%
F in/mm 5.3/134 G in/mm 3.9/100 Weight Ibs/kg .9/.4 Chimney Probe Dimensions H in/mm 4.25/108	Dimensions	D in/mm	4.7/120
G in/mm 3.9/100 Weight Ibs/kg .9/.4 Chimney Probe Dimensions H in/mm 4.25/108		E in/mm	3.7/95
Weight Ibs/kg .9/.4 Chimney Probe Dimensions H in/mm 4.25/108		F in/mm	5.3/134
Chimney Probe Dimensions H in/mm 4.25/108		G in/mm	3.9/100
Dimensions H in/mm 4.25/108	Weight	lbs/kg	.9/.4
	Chimney Probe		
l in/mm 3.50/89	Dimensions	H in/mm	4.25/108
		l in/mm	3.50/89



Programmable features:

- 1. Rotation check
- 2. Exhaust (draft) setting
- 3. Exhaust mode
- 4. Exhaust pre-purge time and speed mode
- 5. Exhaust post-purge time and speed mode
- 6. Exhaust sensor range
- 7. Exhaust alarm limit
- 8. Exhaust alarm delay
- 9. Exhaust speed min and max
- 10. Intake set
- 11. Intake mode
- 12. Intake pre-purge time and speed mode
- 13. Intake post-purge time and speed mode
- 14. Intake sensor range

- 15. Intake alarm limit
- 16. Intake alarm delay
- 17. Intake speed min and max
- 18. Language
- 19. Display units
- 20. Display light
- 21. Alarm reset
- 22. Service triac board
- 23. Service override exhaust
- 24. Service override intake
- 25. Service override alarm mode
- 26. Option priority mode
- 27. Option bearing cycle
- 28. Manual exhaust/intake



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