ENERVEX® EBC 30 MODULATING PRESSURE CONTROL

3912022 08.16

Product Information

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 models RSV, IPVB, TDF, BEF and MDF.

Typical applications are:

- Maintain a constant draft by modulating a power venter in a mechanical draft system serving boilers and water heaters
- Maintain a constant draft by modulating position of an overdraft damper serving boilers and water heaters
- Maintain a constant duct pressure in a dryer venting system or a ventilation system
- Control the supply of combustion air to a mechanical room or directly to a boiler(s)
- Control and maintain room pressure

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 operation; 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 activation rotates the fan motor(s) once every 24 hours if the fan(s) has not operated within the last 24 hours.

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.

Material

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

Standard Equipment

- Control box
- XTP Sensor
- · 6' Silicone tubing
- Stack probe

Listings

The EBC 30 is UL Listed in the U.S. and certified for Canada under Underwriters Laboratories Inc. file no. 302882A:

- UL 378 Standard for Draft Equipment
- CSA C22.2 No. 14-95 Standard for Industrial Control Equipment

Approvals

- CE Compliant
- Manufactured at ISO9001 certified plant
- OSHPD Preapproval Of Manufacturer's Certification (OPM) No. OSP-0343-10

Warranty

2-Year Factory Warranty. Complete warranty conditions are available from ENERVEX Inc.







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Specifications

Amperage A 6.3 Operating Temperature °F/°C -4 to 122/-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 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 12-36 Amperage mA <20 Output VDC 0-10 Operating Temperature °F/°C 0 to 160 / -18 to 71 Range of Operation inWC/Pa +/-0.08% D in/mm 3.70 / 94 E in/mm 5.12 / 130 F in/mm 6.18 / 157 Weight Ibs/kg 16 / .3 Stack Probe	EBC 30 Control		
Operating Temperature °F/°C -4 to 122/-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 4.65/372 Dimensions B in/mm 11.03/280 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 12-36 Amperage mA <20 Output VDC 0-10 Operating Temperature °F/°C 0 to 160 / -18 to 71 Range of Operation inWC/Pa +/-0.08% Din/mm 3.70 / 94 E in/mm 5.12 / 130 F in/mm 6.18 / 157 Weight lbs/kg .6 / .3 Stack Probe	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 VDC 0-10 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 12-36 Amperage mA <20 Output VDC 0-10 Operating Temperature °F/°C 0 to 160 / -18 to 71 Range of Operation inWC/Pa 0-0.6/0-150 Accuracy inWC/Pa 4/-0.08% D in/mm 3.70 / 94 Ein/mm 5.12 / 130 F in/mm 6.18 / 157 Weight Ibs/kg 6/.3 Stack Probe Enimms Stack Probe Dimensions H in/mm 4.25/108 Output In/mm In/mm 4.25/108 Output In/mm In	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 VDC 0-10 A in/mm 14.65/372 B in/mm 11.03/280 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 12-36 Amperage mA <20	Operating Temperature	°F/°C	-4 to 122/-20 to 50
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Control Relay Max. 120 VAC/8A Output VAC 10-120 VDC 0-10 4.65/372 Dimensions B in/mm 11.03/280 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 12-36 Amperage mA <20	Tolerance	inWC/Pa	0.01/3 +/-10%
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VDC	Control Relay		Max. 120 VAC/8A
A in/mm	Output	VAC	10-120
B in/mm		VDC	0-10
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 12-36 Amperage mA <20	Dimensions	A in/mm	14.65/372
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Operating Temperature °F/°C 0 to 160 / -18 to 71 Range of Operation inWC/Pa 0-0.6/0-150 Accuracy inWC/Pa +/-0.08% D in/mm 3.70 / 94 E in/mm 5.12 / 130 F in/mm 6.18 / 157 Weight lbs/kg .6 / .3 Stack Probe Dimensions H in/mm 4.25/108	Amperage	mA	<20
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Dimensions E in/mm 5.12 / 130 F in/mm 6.18 / 157 Weight lbs/kg .6 / .3 Stack Probe Dimensions H in/mm 4.25/108	Accuracy	inWC/Pa	+/-0.08%
F in/mm 6.18 / 157 Weight lbs/kg .6 / .3 Stack Probe H in/mm 4.25/108	Dimensions	D in/mm	3.70 / 94
Weight lbs/kg .6 / .3 Stack Probe H in/mm 4.25/108		E in/mm	5.12 / 130
Stack Probe H in/mm 4.25/108		F in/mm	6.18 / 157
Dimensions H in/mm 4.25/108	Weight	lbs/kg	.6 / .3
Dimensions ————————————————————————————————————	Stack Probe		
l in/mm 3.50/89	Dimensions	H in/mm	4.25/108
		I in/mm	3.50/89





