# ENERVEX®
# EBC 35 MODULATING PRESSURE CONTROL

**3912054 03.16** **Product Information**

## Use
The EBC 35 is a draft and 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 to monitor CO levels in a boiler room. For use with models RSV, TDF, IPVB, BEF and MDF or as a stand-alone safety device.

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 over-draft 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 35 features “Plug-n-Play” to automatically monitor all terminals and register components attached to the control during initial start-up. The control can provide a 0-10V signal to a Variable Frequency Drive (VFD) or actuator. An optional triac board can supply 0-120VAC power directly to the mechanical draft fan or air supply ventilator. An optional damper PCB can provide the ability to control an exhaust fan, an intake fan and a draft damper simultaneously. 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.

A CO transmitter with LCD display monitors CO levels on location and lock out appliance operations, if levels are dangerously high. Automatic reset avoids nuisance lockouts and the need for manual reset. Multiple CO monitors can be daisy-chained if more than one sensing point is required.

The control has an integrated safety system to assure the heating appliance will shut down in case of fan failure or control failure. A unique priority operation function will probe the operating conditions and allow as many appliances as possible to operate without fan assistance, provided the operation is considered safe by the integrated safety system.

The EBC 35 can be set up for intermittent operation so it pre-purges 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 EBC 35 can be configured either by using the LCD dot display and buttons, or by using the integrated webserver, which also allows remote monitoring and firmware upgrades. Two RS485 ports can be used for Modbus communication, and one expansion board can be used for future hardware upgrades.

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.

## Material
The housing is made in steel and is NEMA 1 rated. Sensors are in plastic enclosure and NEMA 1 rated.

## Standard Equipment
- Control box
- CO-sensor and XTP Sensor
- 6' silicone tubing
- Stack probe

## Listings
The EBC 35 Modulating Pressure Control is ETL Listed in the U.S. and Canada:

- UL 378 Standard for Draft Equipment
- UL 60947 Standard for Industrial Control Panels
- CSA C22.2 No. 14-95 – Standard for Industrial Control Equipment

## Approvals
- CE Compliant
- Manufactured at ISO 9001 certified plant

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

ENERVEX Inc.
1685 Bluegrass Lakes Parkway
Alpharetta, GA 30004
USA

P: 770.587.3238
F: 770.587.4731
T: 800.255.2923
info@enervex.com
www.enervex.com

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VENTING DESIGN SOLUTIONS

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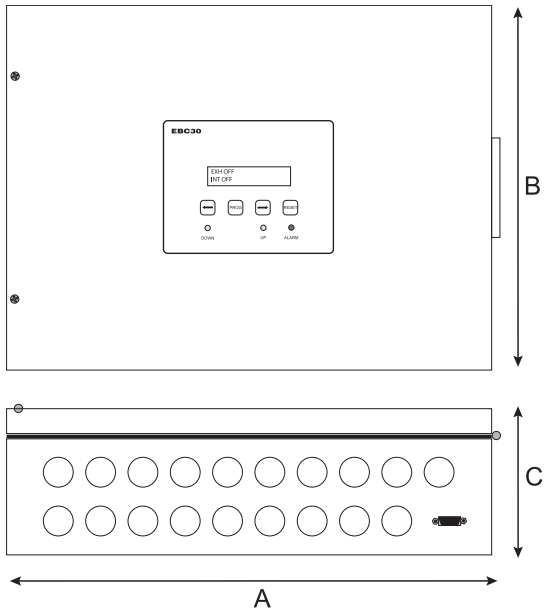
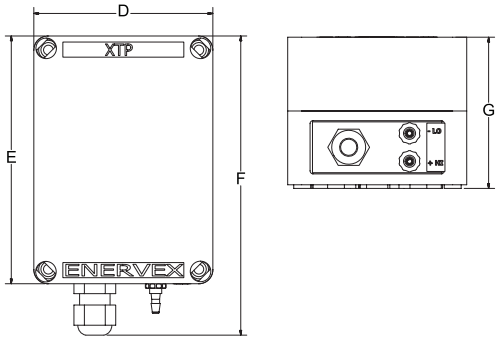
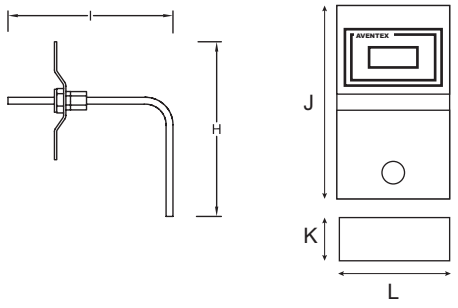
## Specifications

| | | | |
|---|---|---|---|
| **EBC 35 Control** | | | |
| Power Supply | | V | 1x120VAC |
| 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 |
| Dimensions | 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 |
| Output | | VDC | 0-10 |
| Operating Temperature | | °F/°C | 0 to 160 / -18 to 71 |
| Accuracy | | inWC/Pa | +/-0.08% |
| Dimensions | 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 | H in/mm | 4.25/108 |
| | I | I in/mm | 3.50/89 |
| **CO Transmitter** | | | |
| Wide Spectrum, Long life Electromechanical | | | |
| Power Supply | | VDC/VAC | 24 |
| Temperature | | °F/°C | -4 to 104 / -20 to 40 |
| Relays - SPDT | | | 2 |
| Range | | ppm | 0 to 125 |
| Reponse Time | | Seconds | Less than 60 |
| Sensor Life Span | | Years | Min 2. (typical) |
| Dimensions | J | in/mm | 5.94/151 |
| | K | in/mm | 1.13/29 |
| | L | in/mm | 3.50/89 |




Specifications are subject to change without notice.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Alpharetta, GA 30004
USA

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