

ENERVEX

Fan Control ADC100

Use

The ENERVEX ADC100 Appliance Draft Control is used to control draft in systems where modulation is not required. It controls the speed of the fan to maintain proper pressure in the chimney. The ADC100 is for indoor installations only. The control can be used with Models RS and GSV Fans.

The ADC100 is typically used to control the draft of a gas-fired furnace, fireplace, stove, BBQ, or pizza oven.

Description

The ADC100 comes with an external PDS-1. The PDS is a NO/NC switch that ensures the pressure in the chimney is maintained at or above the internal setting of the switch.

The ADC100 operates a chimney fan at a set speed to create and maintain proper mechanical draft at the outlet of a heating appliance(s). The control provides a 10-120 VAC signal to single phase fans, as well as a 0-10 VDC signal that can be interpreted to control 3-phase fans by a variable frequency drive.

In addition to maintaining proper draft, the PDS acts as an integrated safety function to prevent a heating appliance(s) from operating during a mechanical or electrical failure. A stack probe, inserted into the chimney, connects to the PDS via silicone tubing. The PDS relays a signal to the control so it constantly senses draft in the chimney. As long as the draft is maintained at or above the set point of the PDS, the switch remains closed. In case of inadequate draft, the PDS will open. If the PDS switch is open for 15 seconds, the control will go into alarm mode and lock out the appliance until proof is restored. An automatic reset option releases appliance for operation once the PDS closes and avoids nuisance lockouts.

The control features a manual and automatic adjustment mode which is selected via dipswitch. The PDS check function and manual or automatic reset function are also selected through a dipswitch.



An integrated damper relay allows a damper to be connected directly to the ADC100. The control ensures that the damper is fully open before allowing the appliance to operate by interlocking the damper end-switches to the control. In the event that the controller senses any mechanical failures, the control will initiate a retry sequence.

Material

The housing is made of NEMA 1 rated ABS plastic.

Standard Equipment

Control box with integrated fan speed control, PDS and relay.

Warranty

2-year factory warranty

Specifications are subject to change without notice.

Sequence of Operation

When an appliance calls for heat, the ADC100 control signals the damper to open. Once the damper proves open (through the end-switches), the control ramps up the fan speed until the PDS closes. At this time, the ADC100 releases the appliance for operation by closing the dry contact on the appliance output.

If the control is in manual mode, the fan will adjust to the speed setting of the potentiometer. This speed can be adjusted anytime during operation.

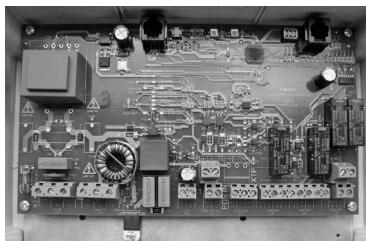
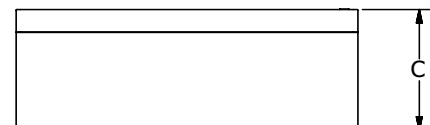
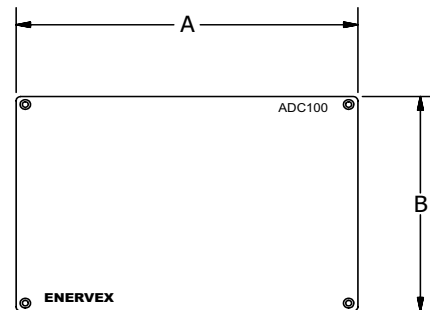
If the control is in automatic mode, the fan gradually ramps up until the PDS closes, and will ignore the potentiometer.

If the PDS opens during operation, the appliance output will open if the PDS hasn't closed after 15 seconds, and the control will go into alarm.

When the appliance shuts down, the control runs through an adjustable post purge cycle before shutting down the fan and damper.

Specifications

ADC100 Control		
Power supply	V	1x120VAC
Amperage	A	6.3
Operating temperature	°F/°C	-4 to 122 / -20 to 50
Control signal	mA	max. 10
Control relay		Max. 120 VAC / 8A
Output	VAC VDC	10-120 0-10
Post Purge Time		0-3 Minutes
Alarm Delay Time		15 Seconds
Dimensions	A in/mm	9.6 / 244
	B in/mm	6.3 / 160
	C in/mm	3.5 / 90
Weight	lbs/kg	2.6 / 1.2
Chimney Probe		
Dimensions	D in/mm	4.25 / 108
	E in/mm	3.50 / 89



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