

General Description

The AH2E Hydramotors are push-type, self-contained, electrohydraulic linear actuators which extend when powered and retract by spring force upon power interruption.

AH2E Hydramotors provide a fast spring return shutoff time of one second or less. When the actuator is mounted to a V710 gas valve, position indicators on both sides of the actuator show the open or closed position of the valve.

The AH2E Hydramotor/V710 gas valve combination provides main line gas control for a wide range of applications, including boilers, furnaces, ovens and all types of industrial and commercial burners. It is available in either a slow or fast opening construction.

Specifications

Power Requirement: 220 VA max.

Closing Time: One second max.

Opening Time:

Fast Opening: 14 seconds max.

Slow Opening: 26 seconds max.

Note: Opening time is double between -30°F and -40°F ambient.

Opening time increases 20% when operating on 50Hz.

Enclosure

Standard: General Purpose Type 1

Optional: Watertight Type 4

(Also meets General Purpose Type 1 and Raintight Type 3)

Ambient Temperature

-40°F to 150°F (-40°C to 66°C)

Electrical

Standard voltages: 120V/60Hz, 110V/50Hz

Non-standard voltages: 24V/60Hz, 240V/60Hz, 220V/50Hz

Proof of Closure Switch: (optional)

A factory set, non-field adjustable SPDT switch. 1800VA max. connected load (e.g. one 15A max. load @ 24V or 120V; one 7.5A max. load at 240V).

Auxiliary Switches: (optional)

One or two integral SPDT switches; field adjustable to actuate at any position of stroke. 1800 VA max. connected load (e.g. one 15A max. load @ 24V or 120V; one 7.5A max. load at 240V).

(Only one aux. switch available with proof of closure construction.)

Electrical Characteristics

Voltage/Hz*	Amperes		
	Inrush	Opening	Holding
24V/60	28	8.2	0.49
120V/60, 110/50	5.6	2.1	0.09
240V/60, 220/50	2.8	1.1	0.04

*Current increases by 20% for 50 Hz operation.



Installation

AH2E Hydramotor mounts in any position directly to a V710 valve with 3 set screws.



Damper Arm Rating

Drives damper in one direction only. 20 lb. max. at 2.85" radius at 20°F to 150°F and 10 lb. max. at -40°F to 20°F. Travel 2" max.

Approvals

AH2E Hydramotor with V710 valve

UL listed to standard 429 "Electrically Operated Valves," Guide YIOZ, File MP932 Safety Valves

FM Approved to Class 7400 "liquid and gas safety shutoff valves."

CSA Certified to:

1. Automatic Gas Valves ANSI Z21.21 CSA 6.5, C/I, File 109157 and 113070.
2. Automatic Gas Safety Shutoff Valves (CGA 3.9), File 113070

Ordering Information

Important: Order by Catalog Number and add suffix number for desired optional feature. e.g. AH2E112A5

Specifications

Applications	Catalog Number		
	24V/60Hz	120V/60Hz, 110V/50Hz	240V/60Hz, 220V/50Hz
On-Off Slow Opening (26 seconds Max) (Watertight)			
Standard	AH2E101A	AH2E102A	AH2E104A
Proof of closure	AH2E101S	AH2E102S	AH2E104S
On-Off Slow Opening (26 seconds Max) (General Purpose)			
Standard	AH2E201A	AH2E202A	AH2E204A
Proof of closure	AH2E201S	AH2E202S	AH2E204S
On-Off Fast Opening (14 seconds Max) (Watertight)			
Standard	AH2E111A	AH2E112A	AH2E114A
Proof of closure	AH2E111S	AH2E112S	AH2E114S
On-Off Fast Opening (14 seconds Max) (General Purpose)			
Standard	AH2E211A	AH2E212A	AH2E214A
Proof of closure	AH2E211S	AH2E212S	AH2E214S

Optional Features

Add appropriate suffix number to catalog number

Damper shaft (add Suffix 1)

Damper shaft, arm & one auxiliary switch (add Suffix 5)

One auxiliary switch (add Suffix 2)

Two auxiliary switches (add Suffix 6)*

Damper shaft & arm (add Suffix 4)

Damper shaft w/arm & two auxiliary switches (add Suffix 7)*

*Not available with proof of closure constructions

Dimensions inches (mm)

