

## General Description

The AH4E Hydramotors are three-position push-type, self-contained, electrohydraulic linear actuators featuring dual internal control valves for repeatable positioning. The low-fire position is factory set at the stroke midpoint, but can be field adjustable to any position between 15% and 100% of stroke.

When power is applied, the actuator shaft travels to the low-fire position. After an external switch completes the low-fire controller circuit, the shaft continues on to the high-fire setting. Opening the external switch returns the shaft to the low-fire setting, and power interruption fully closes the valve in one second or less from any position.

The AH4E Hydramotor/V710(B) gas valve combination provides reliable main line gas control for a wide range of applications, including boilers, furnaces, ovens and all types of industrial and commercial burners.

## 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:** 240V/60Hz, 220V/50Hz

**Proof of Closure Switch (POC): (optional)**

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

**Auxiliary Switch: (optional)**

One integral SPDT switch; field adjustable to actuate at any position of stroke. 1800 VA max. connected load (e.g. 15A max. load @ 120V; 7.5A max. load at 240V). (Note: Not available if optional POC switch is ordered)

## Electrical Characteristics

Voltage/Hz*	Amperes		
	Inrush	Opening	Holding
120V/60, 110/50	5.6	2.2	0.18
240V/60, 220/50	2.8	1.2	0.09

\*Current increases by 20% for 50 Hz operation.



## Installation

AH4E 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

**AH4E Hydramotor with V710 valve**

UL listed to standard 429 "Electrically Operated Valves," Guide Y10Z, 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. AH4E112A1

**Specifications**

Applications	Catalog Number	
	120V/60Hz, 110V/50Hz	240V/60Hz, 220V/50Hz
<b>On-Off Slow Opening (26 seconds Max) (Watertight)</b>		
Standard	AH4E102A	AH4E104A
Proof of closure	AH4E102S	AH4E104S
<b>On-Off Slow Opening (26 seconds Max) (General Purpose)</b>		
Standard	AH4E202A	AH4E204A
Proof of closure	AH4E202S	AH4E204S
<b>On-Off Fast Opening (14 seconds Max) (Watertight)</b>		
Standard	AH4E112A	AH4E114A
Proof of closure	AH4E112S	AH4E114S
<b>On-Off Fast Opening (14 seconds Max) (General Purpose)</b>		
Standard	AH4E212A	AH4E214A
Proof of closure	AH4E212S	AH4E214S

**Optional Features**

Add appropriate suffix number to catalog number

Damper shaft (add Suffix 1)

Damper shaft & arm (add Suffix 4)

One auxiliary switch (add Suffix 2)\*

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

\*Not available with proof of closure constructions

**Dimensions inches (mm)**

