

# Hydramotor® Actuator

Proof of Closure (Optional) For use with V710 Gas Valve Body



## **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

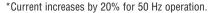
load (e.g. 15A max. load @ 120V; 7.5A max. load at 240V).

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**

	Amperes		
Voltage/Hz*	Inrush	Opening	Holding
120V/60, 110/50	3.6	2.2	0.18
240V/60, 220/50	1.9	1.2	0.09





#### 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 YIOZ, File MP932 Safety Valves FM Approved to Class 7400 "liquid and gas safety

shutoff valves."

CSA Certified to:

- Automatic Gas Valves ANSI Z21.21 CSA 6.5, C/I, File 109157 and 113070.
- 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**

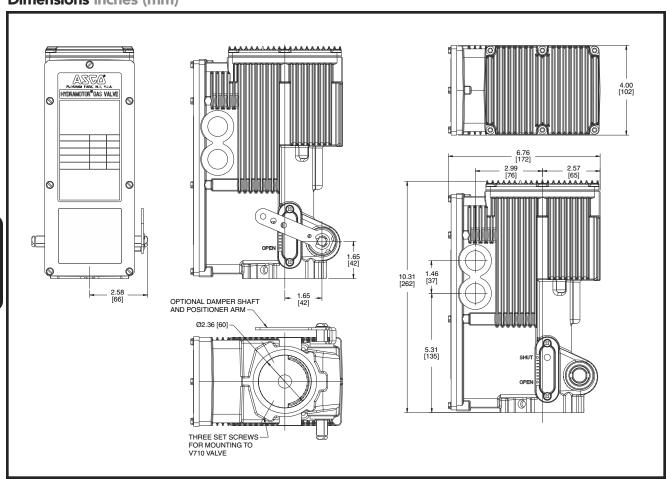
	Catalog Number			
Applications	120V/60Hz, 110V/50Hz	240V/60Hz, 220V/50Hz		
On-Off Slow Opening (26 seconds Max) (Watertight)				
Standard	AH4E102A	AH4E104A		
Proof of closure	AH4E102S	AH4E104S		
On-Off Slow Opening (26 seconds Max) (General Purpose)				
Standard	AH4E202A	AH4E204A		
Proof of closure	AH4E202S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

# **Dimensions inches (mm)**



<sup>\*</sup>Not available with proof of closure constructions