

General Description

The AH8D Hydramotors are modulating, push-type, self-contained, electrohydraulic linear actuators featuring an electronic controller for accurate positioning. The AH8D Hydramotor has a low-fire adjustment and responds to remote control signals from either a 135 ohm potentiometer, a 4-20 mA, 1-5 VDC or a 1-10 VDC signal to provide accurate shaft position between low-fire and high-fire (full open) positions. The low-fire position is factory set at the stroke midpoint, but can be field adjustable to any position up to 100% of stroke.

When power with no control signal is applied, the actuator shaft travels to the low-fire position. An external signal then controls the shaft position to any point between low-fire and high-fire positions. Power interruption fully closes the valve in one second or less from any position.

The AH8D Hydramotor/V710(A) 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 increased 20% when operating on 50Hz.

Enclosure

Type 1, 2, 3, 3S, 4, 12, and 13 Combination General Purpose, Watertight, Dusttight and Driptight.

Ambient Temperature

-40°F to 150°F (-40°C to 66°C)

Electrical

Actuator:

Standard voltages:

120, 240 volts AC, 60 Hz

Input Signal:

Actuator accepts a 4-20mA, 1-5VDC, 1-10VDC or 135 ohm potentiometer signal to provide proportional control of actuator stem position between low fire & high fire mode.

Proof of Closure Switch: (optional)

A factory set, non-field adjustable SPDT switch. 1800VA max. connected load (e.g. one 15A load @ 120V or two 3.75A loads @ 240V).

Auxiliary Switches: (optional)

One integral SPDT switches; field adjustable to actuate at any position of stroke. 1800 VA max. connected load (e.g. one 15A load @ 120V or two 3.75A loads @ 240V).

Relay Contacts:

One SPST relay; field adjustable to actuate at any position of stroke is standard. Max. load is 2.5A@120V or 1.25A@240V is standard.



Series AH8D Hydramotor with V710(A) valve body.

Electrical Characteristics

Voltage	Amperes		
	Inrush	Opening	Holding
120V	5.6	1.85	0.11
240V	2.8	0.92	0.05

Installation

AH8D Hydramotor mounts in any position directly to a V710 (A) valve with 4 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.

Approvals

AH8D Hydramotor with V710(A) valve.

 File # MP932, Vol. 17, Sec. 3, Safety Valves

 CSA Certified to:

1) Automatic Gas Valves Z21.21 (6.5), File 109157 and 113070.

2) Automatic Gas Safety Shutoff Valves C/I (3.9), File 113070.

 JI 3000606 Gas Safety Shut-off Valves.

Ordering Information

Important: Order by Catalog Number and add suffix number for desired optional feature. e.g. AH8D112A2

Specifications

Applications	Catalog Number	
	120 V	240V
Modulating Slow Opening (14 to 26 seconds)		
Standard	AH8D102A	AH8D104A
Proof of closure	AH8D102S	AH8D104S
Modulating Fast Opening (6 to 14 seconds)		
Standard	AH8D112A	AH8D114A
Proof of closure	AH8D112S	AH8D114S

Optional Features

(add appropriate suffix number to catalog number)

One Auxiliary Switch (add suffix 2)

Spring Return Damper Arm (add suffix 3)

Damper Shaft & Arm (add suffix 4)

Damper Shaft, Arm & one Auxiliary Switch, (add suffix 5)

Dimensions inches (mm)

