

General Description

The Normally Closed H117 is a combination Hydramotor® actuator and safety shutoff/control gas valve. It is used for commercial and industrial burners in applications such as furnaces, dryers, dehydrators, conversion burners and heaters.

The cast iron valve body provides high flow and self cleaning operation. Its soft synthetic seat and integral, heavy-duty return spring closes the valve tightly upon current interruption, in one second or less.

The self-contained, hermetically sealed, pull-type electrohydraulic actuator consists of a motor/pump unit immersed in oil, reducing wear and providing highly reliable operation.

Specifications

Fluid: Fuel gas

Opening Time: 20 seconds max.

Closing Time: 1 second max.

Note: Opening time increases 20% with 50Hz

Enclosure: Type 1 General Purpose standard.

Type 4/7 Watertight/Explosion proof optional.

Ambient Temperature: -40°F to 150°F (-40°C to 66°C)

Body Class: Cast Iron, 1" to 3" - 250# screw, 4" - 125# flange.

Pipe Taps: 1/4" upstream & downstream taps for routine leak testing.

Electrical

Power Requirement: 158 VA max.

Standard Voltage: 110-120V/50-60Hz & 220-240V/50-60Hz

Operating Voltage	Amperes		
	Inrush	Opening	Holding
110-120V/50-60Hz	13.2	1.32	0.14
220-240V/50-60Hz	6.6	.66	0.07

Auxiliary Switch: One integral SPDT switch, 15A@120V, 7.5A@240V, (1800VA max.). Actuates at full open position of actuator stroke (not adjustable). Up to 6 adjustable yoke mounted switched may be added.

Proof of Closure Switch: Optional factory set non-field adjustable SPDT switch, 15A@120V, 7.5A@240V (1800VA max.).



Installation

Multi-poise, may be mounted in any position.

Approvals:

UL listed

FM Approved

GSA Certified to:

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

Specifications

Catalogue Number	Pipe Connection (NPT)	Gas Capacity (ft ³ /hr)*	Cv Flow	Max. Operating Pressure Differential (psi)	Const. Ref.	Opening Time (Sec.)	Shipping Weight lbs.
Fast Opening							
H117AJ112F1	2	8,000	151	20	1	12-18	75
H117AK112F1	2 1/2	12,900	244	8	2	12-18	105
H117AL112F1	3	17,000	320	8	3	12-18	105
H117AN112F1	4 (Flange)	27,000	510	4	4	12-20	140
Fast Opening with Valve Seal Overtravel Interlock (FM Proof of Closure)							
H117AJ112F1F26V16	2	8,000	124	20	1	12-18	80
H117AK112F1F26V16	2 1/2	12,900	171	8	2	12-18	110
H117AL112F1F26V16	3	17,000	320	8	3	12-18	110
H117AN112F1F26V16	4 (Flange)	27,000	444	4	4	12-20	145

*One cubic foot per hour = 1,000 Btu/hr, 0.64 specific gravity natural gas @ 1" W.C.P.D.

Dimensions: inches

Const. Ref.	A	B	C
1	8.13	18.13	2.50
2	10.88	18.63	2.88
3	10.88	18.63	3.88
4	13.88	20.00	4.06

Replacement Actuators:

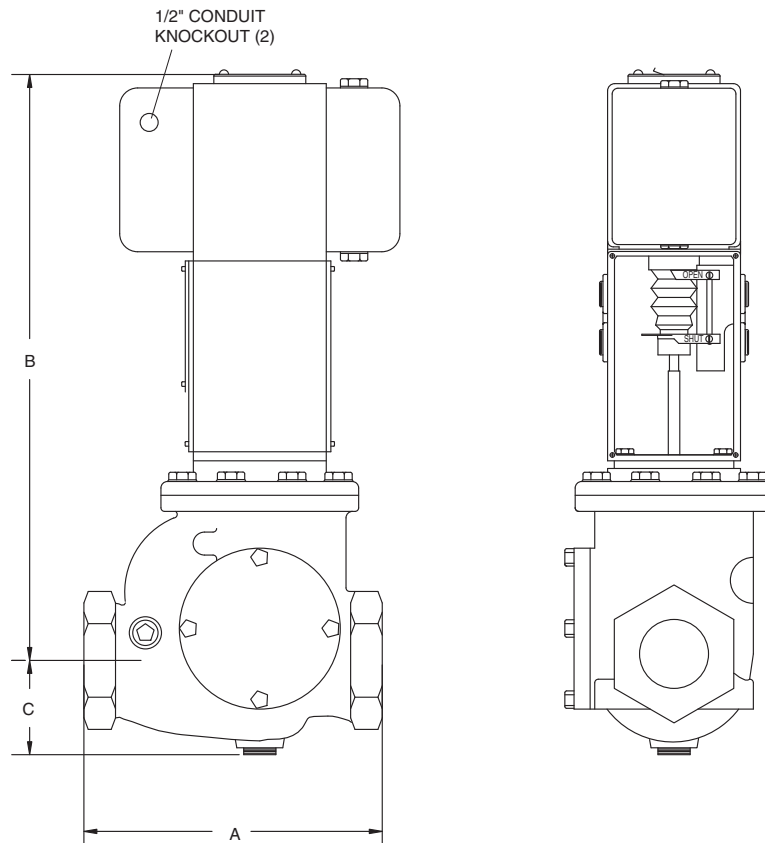
Catalogue Number	Voltage
H10A620B5F1	110-120V/50-60Hz
H10A640B5F1	220-240V/50-60Hz

For FM Proof of Closure add F26 to Cat. No.

Replacement Switches:

Kits	Switches*	Type
104772EA1	1	Auxiliary (Adjustable)
104772EA2	2	
104772EA3	3	
104772EAX1	1	Proof of Closure

* Yoke Mounted



General Description

The Normally Closed H118 is a combination Hydramotor® actuator and safety shutoff/control gas valve. It is used for commercial and industrial burners in applications such as furnaces, dryers, dehydrators, conversion burners and heaters.

The cast iron, globe-type valve body features a soft synthetic seat and integral heavy-duty return spring for tight and certain closure in one second or less upon current interruption.

The self contained, hermetically sealed, pull-type electrohydraulic actuator consists of a motor/pump unit immersed in oil, reducing wear and provides highly reliable operation.

Specifications

Fluid: Fuel gas

Opening Time: 28 seconds max.

Closing Time: 1 second max.

Enclosure: Type 1 General Purpose standard.

Type 4/7 Watertight/Explosionproof optional.

Ambient Temperature: -40°F to 150°F (-40°C to 66°C)

Body Class: Cast Iron, 1" to 3" - 250# screw, 4" - 125# flange.

Pipe Taps: 1/4" upstream & downstream taps for routine leak testing.

Electrical

Power Requirement: 158 VA max. (1-3"), 288 VA max. (4")

Standard Voltage: 110-120V/50-60Hz

Operating Voltage	Amperes		
	Inrush	Opening	Holding
1" Through 3"			
110-120V/50-60Hz	13.2	1.32	0.14
220-240V/50-60Hz	6.6	.66	0.07
4" Only			
110-120V/50-60Hz	24.0	2.40	0.18
220-240V/50-60Hz	12.0	1.20	0.09

Auxiliary Switch: One integral SPDT switch, 15A@120V, 7.5A@240V, (1800VA max.). Actuates at full open position of actuator stroke (not adjustable). Up to 6 adjustable yoke mounted switches may be added.

Proof of Closure Switch: Optional factory set non-field adjustable SPDT switch, 15A@120V, 7.5A@240V (1800VA max.).



Installation

Multi-poise, may be mounted in any position.

Approvals:

UL listed

FM Approved

CSA Certified to:

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

Specifications

Catalogue Number	Pipe Connection (NPT)	Gas Capacity (ft ³ /hr)*	Cv Flow	Max. Operating Pressure Differential (psi)	Const. Ref.	Opening Time (Sec.)	Shipping Weight lbs.
Fast Opening							
H118AF122F1	1	915	17	35	1	7-18	22
H118AG122F1	1 1/4	1,155	25	35	1	7-18	23
H118AH122F1	1 1/2	1,525	35	25	2	8-20	28
H118AJ122F1	2	3,300	67	15	3	10-24	32
H118AK122F1	2 1/2	3,730	86	15	4	11-28	52
H118AL122F1	3	6,095	125	15	5	12-18	54
H118AN132F1	4 (Flange)	9,710	168	15	6	15-24	148
Fast Opening with Valve Seal Overtravel Interlock (FM Proof of Closure)							
H118AJ122F1F26V16	2	3,300	67	15	3	9-17	37
H118AK122F1F26V16	2 1/2	3,730	86	15	4	11-20	57
H118AL122F1F26V16	3	6,095	125	15	5	13-23	59
H118AN132F1F26V16	4 (Flange)	9,710	168	15	6	15-24	153

*One cubic foot per hour = 1,000 Btu/hr, 0.64 specific gravity natural gas @ 1" W.C.P.D.

Dimensions: inches

Const. Ref.	A	B	C
1	5.13	14.65	1.93
2	6.50	15.15	2.56
3	8.13	15.00	2.70
4	9.50	15.38	3.28
5	10.88	15.81	3.75
6	13.88	23.88	5.00

Replacement Actuators:

Catalogue Number ①	Voltage
H10A620B5F1	110-120V/50-60Hz
H10A640B5F1	220-240V/50-60Hz
H30A2220B20F1 ②	110-120V/50-60Hz

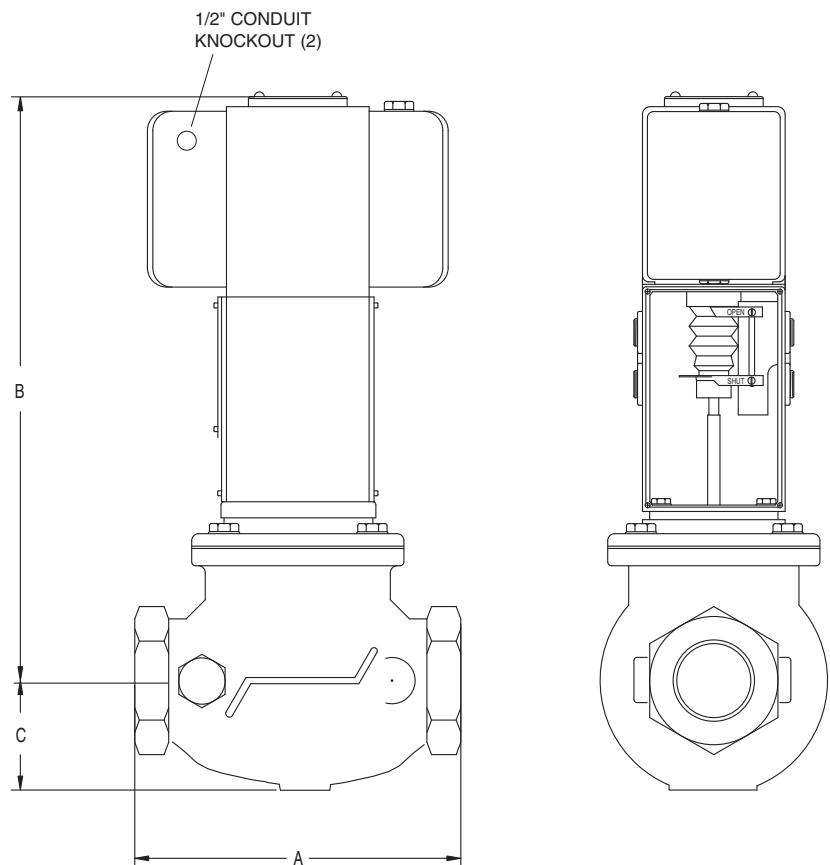
① For FM Proof of Closure add F26 to Cat. No.

② 4-inch size only.

Replacement Switches:

Kits	Switches*	Type
1" through 3"		
104772EA1	1	Auxiliary (Adjustable)
104772EA2	2	
104772EA3	3	
104772EAX1	1	Proof of Closure
4" only		
104772FA1	1	Auxiliary (Adjustable)
104772FA2	2	
104772FA3	3	
104772FAX1	1	Proof of Closure

* Yoke Mounted



General Description

The H137 is a 2-way, normally closed, safety shutoff valve providing trouble free, electrohydraulic on-off control of combustion gas for boilers, industrial furnaces, dryers, dehydrators, large conversion burners, air heaters and similar applications.

The self-contained Hydramotor® actuator is a powerful, pull-type hydraulic ram providing output force of 1,400 pounds to fully open the valve. Upon current interruption, dual redundant relief valves dump hydraulic pressure, closing the valve in one second. The Hydramotor® consists of a motor/pump unit immersed in oil, reducing wear and provides highly reliable operation.

The H137 is a cast iron-bodied valve with Nitrile seat and aluminum trim. Pulling force from the Hydramotor® actuator moves a lever (providing mechanical advantage) against spring and gas pressure to open the soft-seated flap, allowing straight-through gas flow.

A simple, two-wire circuit controls the motorized valve. Each H137 is equipped with one standard SPDT switch which actuates at the fully-open (energized) position. Each is equipped with a valve seal overtravel interlock switch which can be wired into the startup or pre-ignition interlock circuit to permit supervision of the valve's closed position (FM proof of closure).

Specifications

Fluid: Fuel gas

Opening Time: 27 seconds max.

Closing Time: 1 second max.

Enclosure: Type 4 Watertight standard.

Type 7 Explosionproof optional.

Ambient Temperature: -40°F to 150°F (-40°C to 66°C)

Body Class: Cast Iron, 2" to 3": 250# screw, 4"-6": 125# flanges.

Pipe Taps: 1/4" upstream & downstream taps for routine leak testing.

Electrical

Power Requirement: 324 VA

Standard Voltage: 110-120V/50-60Hz

Operating Voltage	Amperes		
	Inrush	Opening	Holding
110-120V/50-60Hz	270	2.7	0.18

Auxiliary Switch: Integral SPDT switch, 15A@120V Actuates at full open position of actuator stroke (not adjustable). Up to 2 adjustable yoke mounted switches may be added.

Proof of Closure Switch: Integral factory set, non-field adjustable SPDT switch, 1/4 HP@120V.



Installation

Multi-poise, may be mounted in any position.

Approvals:

UL listed

FM Approved

CSA Certified to:

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

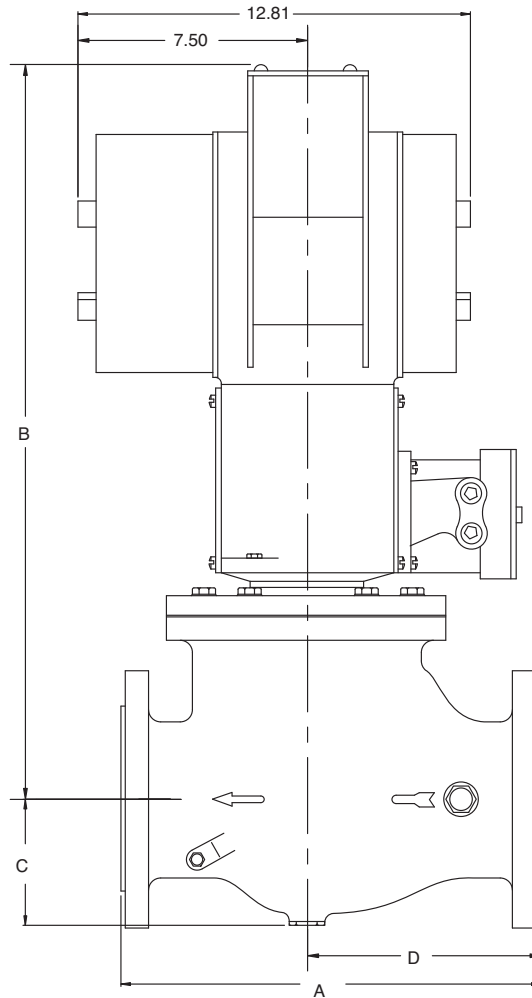
Specifications

Catalogue Number	Pipe Connection (NPT)	Gas Capacity ft ³ /hr *		Cv Flow	Max. Operating Pressure Differential (psi)	Const. Ref.	Opening Time	Shipping Weight lbs.
		P 1" W.C.	P 5 psi					
H137CJ12F1F26V16	2	8,000	210,000	151	60	1	22	130
H137CK12F1F26V16	2 1/2	12,900	250,000	244	50	2	22	135
H137CL12F1F26V16	3	17,000	360,000	320	50	2	22	135
H137CN32F1F26V16	4 (Flange)	27,000	600,000	510	30	3	27	143
H137CQ32F1F26V16	6 (Flange)	50,000	1,200,000	1020	20	4	27	150

*One cubic foot per hour = 1,000 Btu/hr, 0.64 specific gravity natural gas @ 1" W.C.P.D.

Dimensions: inches

Const. Ref.	A	B	C	D
1	8.12	25.25	2.50	4.95
2	11.00	26.09	2.88	6.50
3	13.87	28.69	4.06	7.75
4	17.81	29.75	5.13	10.35



Replacement Actuators:

Catalogue Number	Voltage
H30A4820B20C1F1F26	110-120V/50-60Hz

Replacement Switches:

Kits	Switches*	Type
104772FAX1	1	Proof of Closure
104772FAX2	2	1 Proof of Closure and 1 Auxiliary
104772FAX3	3	1 Proof of Closure and 2 Auxiliary

*Yoke Mounted