Cast Iron Body

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 second max. **Closing Time:** 1 second max.

Note: Opening time increased 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:** 120V/60Hz

240V/60Hz (Optional)

Operating	Amperes					
Voltage	Inrush	Opening	Holding			
120V/60Hz	13.2	1.32	0.14			
240V/60Hz	6.6	0.66	0.07			

Auxiliary Switches:

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 (English units)

Cv	Gas Capacity ①			Max.	Catalog Number	Const		Agency		Ononing	Approx. Shipping Weight
Factor	Cu.Ft/hr.	Min.	Max.	Temp.°F	2 3	Ref.	UL	FM	CSA	Time (Sec.)	(lbs)
TION (Fue	l Gas) - Normal	ly Closed									
Trim											
151	8,000	0	20	150	H117AJ112F1	1	0	0	0	12-18	75
244	12,900	0	8	150	H117AK112F1	2	0	0	0	12-18	105
320	17,000	0	8	150	H117AL112F1	3	0	0	0	12-18	105
510	27,000	0	4	150	H117AN112F1	4	0	0	0	12-20	140
Valve Seal Overtravel Trim (Proof of Closure)											
124	6,600	0	20	150	H117AJ112F1F26V16	1	0	0	0	12-18	80
171	9,100	0	8	150	H117AK112F1F26V16	2	0	0	0	12-18	110
320	17,000	0	8	150	H117AL112F1F26V16	3	0	0	0	12-18	110
444	24,000	0	4	150	H117AN112F1F26V16	4	0	0	0	12-20	145
	Flow Factor TON (Fue Trim 151 244 320 510 I Overtra 124 171 320	Cv Flow Factor Capacity ⊕ Cu.Ft/hr. Cu.Ft/hr. ION (Fuel Gas) - Normal Trim 8,000 244 12,900 320 17,000 510 27,000 I Overtravel Trim (Proof of 6,600 171 9,100 320 17,000	Cv Flow Factor Capacity ⊕ Different ClON (Fuel Gas) - Normally Closed Different 151 8,000 0 244 12,900 0 320 17,000 0 510 27,000 0 I Overtravel Trim (Proof of Closure) 124 171 9,100 0 320 17,000 0	Cv Flow Factor Capacity ⊕ Differential (psi) Cu.Ft/hr. Min. Max. CION (Fuel Gas) - Normally Closed Trim 151 8,000 0 20 244 12,900 0 8 320 17,000 0 8 510 27,000 0 4 I Overtravel Trim (Proof of Closure) 124 6,600 0 20 171 9,100 0 8 320 17,000 0 8	Cv Flow Factor Capacity ⊕ Differential (psi) Max. Fluid Temp.°F ION (Fuel Gas) - Normally Closed Trim 151 8,000 0 20 150 244 12,900 0 8 150 320 17,000 0 8 150 510 27,000 0 4 150 I Overtravel Trim (Proof of Closure) 124 6,600 0 20 150 171 9,100 0 8 150 320 17,000 0 8 150	Cv Flow Factor Capacity ⊕ Differential (psi) Max. Fluid Temp.°F Catalog Number 10N (Fuel Gas) - Normally Closed Trim 151 8,000 0 20 150 H117AJ112F1 244 12,900 0 8 150 H117AK112F1 320 17,000 0 8 150 H117AL112F1 510 27,000 0 4 150 H117AN112F1 I Overtravel Trim (Proof of Closure) 124 6,600 0 20 150 H117AJ112F1F26V16 171 9,100 0 8 150 H117AK112F1F26V16 320 17,000 0 8 150 H117AL112F1F26V16	Cv Flow Factor Capacity ① Differential (psi) Max. Fluid Temp. °F Catalog Number ② ③ Const. Ref. CION (Fuel Gas) - Normally Closed Irim 151 8,000 0 20 150 H117AJ112F1 1 244 12,900 0 8 150 H117AK112F1 2 320 17,000 0 8 150 H117AN112F1 3 510 27,000 0 4 150 H117AN112F1 4 I Overtravel Trim (Proof of Closure) 124 6,600 0 20 150 H117AJ112F1F26V16 1 171 9,100 0 8 150 H117AK112F1F26V16 2 320 17,000 0 8 150 H117AL112F1F26V16 3	Cv Flow Factor Capacity ① Differential (psi) Max. Fluid Temp.°F Catalog Number ② ③ Const. Ref. UL 100N (Fuel Gas) - Normally Closed Irim 151 8,000 0 20 150 H117AJ112F1 1 ○ 244 12,900 0 8 150 H117AK112F1 2 ○ 320 17,000 0 8 150 H117AL112F1 3 ○ 510 27,000 0 4 150 H117AN112F1 4 ○ I Overtravel Trim (Proof of Closure) 124 6,600 0 20 150 H117AJ112F1F26V16 1 ○ 171 9,100 0 8 150 H117AK112F1F26V16 2 ○ 320 17,000 0 8 150 H117AL112F1F26V16 3 ○	Cv Flow Factor Capacity ① Differential (psi) Max. Fluid Temp.°F Catalog Number ② ③ Const. Ref. UL FM ION (Fuel Gas) - Normally Closed 151 8,000 0 0 20 150 H117AJ112F1 1 0 0 244 12,900 0 8 150 H117AK112F1 2 0 0 320 17,000 0 8 150 H117AL112F1 3 0 0 510 27,000 0 4 150 H117AN112F1 4 0 0 I Overtravel Trim (Proof of Closure) 124 6,600 0 20 150 H117AJ112F1F26V16 1 0 0 171 9,100 0 8 150 H117AK112F1F26V16 2 0 0 320 17,000 0 8 150 H117AL112F1F26V16 3 0 0	CV Flow Flow Capacity ① Differential (psi) Max. Fluid Temp.°F Catalog Number ② Const. Ref. UL FM CSA ION (Fuel Gas) - Normally Closed Trim 151 8,000 0 20 150 H117AJ112F1 1 ○ ○ 244 12,900 0 8 150 H117AK112F1 2 ○ ○ 320 17,000 0 8 150 H117AJ112F1 3 ○ ○ 510 27,000 0 4 150 H117AJ112F1 4 ○ ○ I Overtravel Trim (Proof of Closure) 124 6,600 0 20 150 H117AJ112F1F26V16 1 ○ ○ 171 9,100 0 8 150 H117AK112F1F26V16 2 ○ ○ 320 17,000 0 8 150 H117AK112F1F26V16 2 ○ ○	Compact Com

Specifications (Metric units)

Pipe	Kv Flow	Gas Capacity ①		Pressure tial (bar)	Max. Fluid	Catalog Number	01	Agency			Ononina	Approx. Shipping
Size (ins.)	(m³/hr)	Cu.Ft/hr.	Min.	Max.	Temp.°C	2 3	Const. Ref.	UL	FM	CSA	Opening Time (Sec.)	Weight (kgs)
COMBUS	TION (Fue	l Gas) - Normal	ly Closed	•	•					•		
Standard	Trim											
2	128	8,000	0	1.4	66	H117AJ112F1	1	0	0	0	12-18	34.1
2 1/2	207	12,900	0	0.6	66	H117AK112F1	2	0	0	0	12-18	47.7
3	272	17,000	0	0.6	66	H117AL112F1	3	0	0	0	12-18	47.7
4 (Flange)	434	27,000	0	0.3	66	H117AN112F1	4	0	0	0	12-20	63.6
Valve Seal Overtravel Trim (Proof of Closure)												
2	105	6,600	0	1.4	66	H117AJ112F1F26V16	1	0	0	0	12-18	36.4
2 1/2	145	9,100	0	0.6	66	H117AK112F1F26V16	2	0	0	0	12-18	50
3	272	17,000	0	0.6	66	H117AL112F1F26V16	3	0	0	0	12-18	50
4 (Flange)	377	24,000	0	0.3	66	H117AN112F1F26V16	4	0)	0	12-20	65.9

Replacement Switches:

Kits	Switches*	Туре		
S104772EA1	1			
S104772EA2	2	Auxiliary (Adjustable)		
S104772EA3	3	(riajaotao.o)		
S104772EAX1	1	Proof of Closure		
* Yoke Mounted				

Replacement Actuators:

Catalog Number	Voltage			
H10A620B5F1	120V/60Hz			
H10A640B5F1	240V/60Hz			
For FM Proof of Closure add F26 to Cat. No.				

O = Safety Shutoff Valve. ① One cu. ft/hr = 1,000 Btu/hr, 0.64 Specific Gravity Gas @ 1" W.C.P.D. ② Type 4/7 Watertight/Explosionproof chage 5th digit to "8" (EX: H117BJ112F1). ③ 240V/60Hz change 9th digit to "4" (EX: H117AJ114F1).

 ^{⊃ =} Safety Shutoff Valve. ① One cu. ft/hr = 1,000 Btu/hr, 0.64 Specific Gravity Gas @ 1" W.C.P.D.
 ② Type 4/7 Watertight/Explosionproof chage 5th digit to "B" (EX: H117BJ112F1). ③ 240V/60Hz change 9th digit to "4" (EX: H117AJ114F1).



Dimensions inches (mm)

Const Ref.		A	В	С
4	ins.	8.13	18.13	2.50
'	mm	207	461	64
2	ins.	10.88	18.63	2.88
	mm	276	473	73
3	ins.	10.88	18.63	3.88
3	mm	276	473	99
4	ins.	13.88	20.00	4.06
4	mm	353	508	103



