

General Description

These 2-way normally closed valve bodies are designed for on/off control of commercial or industrial gas burners. The V710(B) is designed exclusively for use with the AH(E) Hydramotor® actuator. The AH(E) Hydramotor valve consists of two assemblies; the V710(B) valve body and the AH(E) Hydramotor actuator.

The V710(B) is a push-to-open valve which opens when the valve stem is depressed by an AH(E) Hydramotor. An internal return spring closes the valve when the Hydramotor actuator is de-energized. Optional flange adapters are available for ease of installation and service.

Construction

Valve Parts in Contact with Fluids	
Body	Die-cast aluminum
Bonnet	Die-cast aluminum
Seals	Nitrile
Springs	Zinc-plated steel
Stem Bushing	Delrin
Valve Stem	303 stainless steel
Discs	NBR
Retaining Ring	303 stainless steel
Pipe Plugs	Zinc-plated steel
Seal Ring	PTFE (models with overtravel)
Stem Connector	303 stainless steel

Model Types

Quick Opening Trim: (Standard)

For applications where metered flow control is not required.

Quick Opening w/Valve Seal Overtravel Trim: (Suffix V22)

For any "on-off" application where the user, code or approval agency requires a valve seal overtravel arrangement.

Specifications

Closeoff Pressure: 50 psi (3.5 bar) maximum

Pressure Taps: Two 1/8" NPT downstream, two 1/8" NPT upstream.

Fluid: Fuel Gas



Installation

V710(B) valve body mounts in any position directly to AH2(E) Hydromotor Actuator.



Approvals

V710(B) valve with AH2E Hydramotor

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
3. Standard C22.2 No. 139, File 109157 and 113070

Specifications (English units)

Pipe Size (ins.)	Orifice Size (ins.)	Cv Flow Factor	Flow Capacity ft ³ /hr Ⓞ	Gas Capacity Btu/hr. ①	Operating Pressure Differential (psi)		Fluid Temp. °F		Catalog Numbers		Const. Ref.	Approx. Shipping Weight (lbs)
					Min.	Max.	Min.	Max.	Quick Opening Trim	Quick Opening w/Valve Seal Overtravel Trim		
COMBUSTION (Fuel Gas) - Normally Closed												
3/4	1 5/8	14	754	754,900	0	15	-40	150	V710EBS	V710EBSV22	1	4.3
1	1 5/8	20	1,078	1,078,400	0	15	-40	150	V710FBS	V710FBSV22	1	4.2
1 1/4	2 3/32	44	2,353	2,353,000	0	15	-40	150	V710GBS	V710GBSV22	2	6.3
1 1/2	2 3/32	57	3,048	3,048,000	0	15	-40	150	V710HBS	V710HBSV22	2	6.1
2	2 3/32	74	3,956	3,956,500	0	15	-40	150	V710JBS	V710JBSV22	2	5.8
2 (High Flow)	3	91	4,906	4,906,800	0	15	-40	150	V710MBS	V710MBSV22	3	13.2
2 1/2	3	120	6,470	6,470,500	0	15	-40	150	V710KBS	V710KBSV22	3	12.7
3	3	160	8,627	8,627,300	0	15	-40	150	V710LBS	V710LBSV22	3	11.7

① 1" W.C. Drop @ 2" W.C. Inlet Pressure, 1,000 Btu/cu.ft. or more, 0.64 Specific Gravity Gas.

Specifications (Metric units)

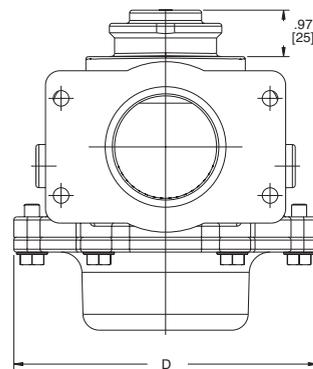
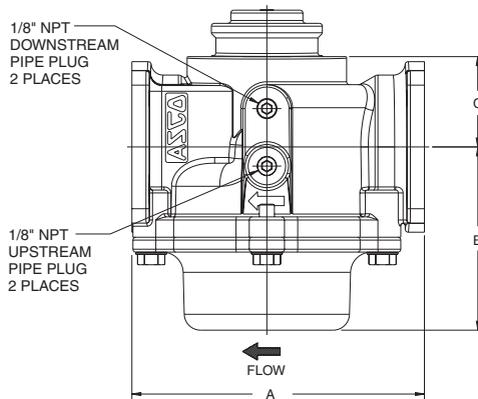
Pipe Size (ins.)	Orifice Size (mm)	Kv Flow Factor	Flow Capacity m ³ /hr Ⓞ	Gas Capacity Btu/hr. ①	Operating Pressure Differential (bar)		Fluid Temp. °C		Catalog Numbers		Const. Ref.	Approx. Shipping Weight (kgs)
					Min.	Max.	Min.	Max.	Quick Opening Trim	Quick Opening w/Valve Seal Overtravel Trim		
COMBUSTION (Fuel Gas) - Normally Closed												
3/4	41	11.9	21	754,900	0	1	-40	66	V710EBS	V710EBSV22	1	2.0
1	41	17.1	31	1,078,400	0	1	-40	66	V710FBS	V710FBSV22	1	1.9
1 1/4	53	37.5	67	2,353,000	0	1	-40	66	V710GBS	V710GBSV22	2	2.9
1 1/2	53	48.6	86	3,048,000	0	1	-40	66	V710HBS	V710HBSV22	2	2.8
2	53	63.1	112	3,956,500	0	1	-40	66	V710JBS	V710JBSV22	2	2.6
2 (High Flow)	76	77.6	139	4,906,800	0	1	-40	66	V710MBS	V710MBSV22	3	6.0
2 1/2	76	102.4	183	6,470,500	0	1	-40	66	V710KBS	V710KBSV22	3	5.8
3	76	136.5	244	8,627,300	0	1	-40	66	V710LBS	V710LBSV22	3	5.3

① 1" W.C. Drop @ 2" W.C. Inlet Pressure, 1,000 Btu/cu.ft. or more, 0.64 Specific Gravity Gas.

Dimensions inches (mm)

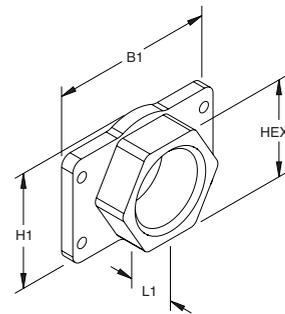
Const. Ref.		A	B	C	D
1	ins.	5.3	3.48	1.46	5.39
	mm	135	88	37	137
2	ins.	6.09	3.83	1.89	6.32
	mm	155	97	48	161
3	ins.	7.80	5.28	2.38	7.94
	mm	198	134	60	202
4	ins.	13.88	5	7.40	9
	mm	353	127	188	229

Const. Ref. 1-3

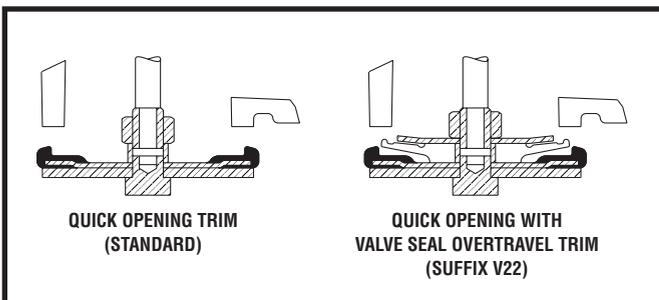


Flange Adapters

Flange Adapters		B1	H1	L1	HEX
3/4" - 1"	ins.	4.8	2.5	1.27	2.5
	mm	122	76	32	64
1 1/4" - 2"	ins.	5	3.56	1.38	3
	mm	127	90	35	76
2" (High Flow) - 3"	ins.	7	4.5	2.015	4.5
	mm	178	114	51	114



Trim Types



Flange Adapter Kits (Optional)*

Pipe Size (ins.)	Inlet & Outlet Adapter/Hardware Kit
3/4	296659-001
1	296659-002
1 1/4	296659-005
1 1/2	296659-006
2	296659-007
2 (High Flow)	296659-008
2 1/2	296659-009
3	296659-010

* Please refer to the Double Gas Shutoff Valves catalog pages for more kit information.

