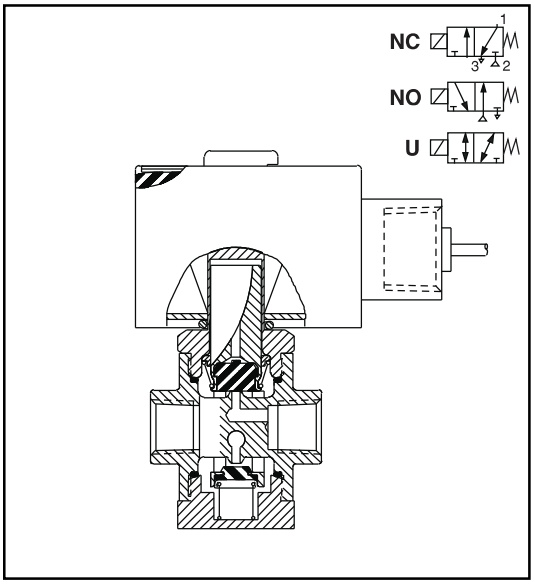
Features

- All NPT connections are in the valve body to allow in-line piping
- No Minimum Operating Pressure Differential required
- Broadest range of applications
- Mountable in any position





Construction

Valve Parts in Contact with Fluids		
Body	Brass	303 Stainless Steel
Seals and Disc	NBR or Cast UR, as Listed	
Core Tube	305 Stainless Steel	
Core and Plugnut	430F Stainless Steel	
Core Springs	302 Stainless Steel	
Shading Coil	Copper	Silver
Disc-Holder	CA	
Core Guide	CA (10.1 and 17.1 Watt only)	

Electrical

Standard Coil and Class of Insulation	Watt Rating and Power Consumption				Spare Coil Part Number			
		AC			General Purpose		Explosionproof	
	DC Watts	Watts	VA Holding	VA Inrush	AC	DC	AC	DC
F	10.6	6.1	16	30	238210	238310	238214	238314
F	-	9.1	25	40	238210	-	238214	-
F	11.6	10.1	25	50	238610	238710	238614	238714
F	22.6	17.1	40	70	238610	238710	238614	238714

Standard Voltages: 24, 120, 240, 480 volts AC, 60 Hz (or 110, 220 volts AC, 50 Hz). 6, 12, 24, 120, 240 volts DC. Must be specified when ordering. Other voltages are available when required.

Solenoid Enclosures

Standard: Watertight, Types 1, 2, 3, 3S, 4, and 4X.

Optional: Explosionproof and Watertight, Types 3, 3S, 4, 4X, 6, 6P, 7, and 9. (To order, add prefix "EF" to the catalog number.)

See Optional Features Section for other available options.

Nominal Ambient Temp. Ranges

AC: 32˚F to 125˚F (0˚C to 52˚C)
DC: 32˚F to 104˚F (0˚C to 40˚C)

Note: Some stainless steel constructions are rated -40˚F (-40˚C). See note ④ in specifications table.

Refer to Engineering Section for details.

Approvals

CSA certified. UL listed General Purpose Valves. Meets applicable CE directives.

SIL 3 capable per IEC 61508 on normally closed const. Third party certification provided by EXIDA.

Refer to Engineering Section for details.

ATEX/IECEx certified with prefix "EV" as listed.
Refer to Optional Features Electrical Section for details.

Specifications (English units)

Pipe Size (in)	Orifice Size (in)	Cv Flow Factor	Operating Pressure Differential (psi) Max. AC Air-Inert Gas	Max. AC Water ⑤	Max. AC Lt. Oil @ 300 SSU	Max. DC Air-Inert Gas	Max. DC Water ⑤	Max. DC Lt. Oil @ 300 SSU	Max. Fluid Temp. °F AC	Max. Fluid Temp. °F DC	Brass Body Catalog Number	Brass Body Const. Ref.	Stainless Steel Body Catalog Number	Stainless Steel Body Const. Ref.	Watt Rating/ Class of Coil Insulation ② AC	Watt Rating/ Class of Coil Insulation ② DC
UNIVERSAL OPERATION (Pressure at any port)																
1/8	3/64	0.06	175	175	175	125	125	125	140	120	8320G130 ①	1	8320G140 ①	1	9.1F	10.6F
1/8	1/16	0.09	100	100	100	65	65	65	180	120	8320G001	1	8320G041 ③	1	9.1F	10.6F
1/8	1/16	0.09	175	175	175	125	125	125	200	150	8320G212	4	8320G221 ④⑥	4	17.1/F	22.6/F
1/8	3/32	0.12	50	50	50	50	50	50	180	120	8320G083	1	8320G087 ③	1	6.1/F	10.6/F
1/8	3/32	0.12	100	100	100	60	60	60	200	150	8320G213	4	8320G222 ④	4	17.1/F	11.6/F
1/8	1/8	0.21	30	30	30	20	20	20	180	120	8320G003	1	8320G043 ③	1	9.1/F	10.6/F
1/8	1/8	0.21	50	50	50	25	25	25	200	150	8320G214	4	8320G223 ④	4	17.1/F	11.6/F
1/4	1/16	0.09	125	130	130	75	75	75	200	150	8320G172	2	-	-	10.1/F	11.6/F
1/4	1/16	0.09	175	175	175	125	125	125	200	150	-	-	8320G230 ④⑥	3	17.1/F	22.6/F
1/4	3/32	0.12	100	100	100	60	60	60	200	150	8320G174	2	8320G200 ③④⑥	3	17.1/F	11.6/F
1/4	1/8	0.25	50	50	50	25	25	25	200	150	8320G176 ⑥	2	8320G201 ③④⑥	3	17.1/F	11.6/F
1/4	11/64	0.35	20	20	20	12	12	12	200	150	8320G178	2	-	-	10.1/F	11.6/F
NORMALLY CLOSED (Closed when de-energized) – PFD_{AVG} = 6.81 x 10^{-4}																
1/8	3/64	0.06	200	200	200	200	200	200	180	120	8320G132	1	8320G142 ③	1	6.1F	10.6/F
1/8	1/16	0.09	150	125	125	125	125	125	180	120	8320G013	1	8320G045 ③	1	6.1F	10.6/F
1/8	1/16	0.09	210	225	225	160	160	160	200	150	8320G215	4	8320G224 ④	4	17.1/F	11.6/F
1/8	3/32	0.12	100	100	100	100	100	100	180	120	8320G015	1	8320G047 ③	1	6.1F	10.6/F
1/8	3/32	0.12	150	150	150	115	115	115	200	150	8320G216	4	8320G225 ④	4	10.1/F	11.6/F
1/8	1/8	0.21	40	40	40	40	40	40	180	120	8320G017	1	8320G049 ③	1	6.1F	10.6/F
1/8	1/8	0.21	85	85	85	60	60	60	200	150	8320G217	4	8320G226 ④	4	10.1/F	11.6/F
1/4	1/16	0.09	210	225	225	160	160	160	200	150	8320G182 ⑥	2	8320G231 ④	3	17.1/F	11.6/F
1/4	3/32	0.12	150	150	150	115	115	115	200	150	8320G184	2	8320G202 ③④⑥	3	10.1/F	11.6/F
1/4	1/8	0.25	85	85	85	60	60	60	200	150	8320G186	2	8320G203 ③④⑥	3	10.1/F	11.6/F
1/4	11/64	0.35	45	45	45	25	25	25	200	150	8320G188	2	-	-	10.1/F	11.6/F
NORMALLY OPEN (Open when de-energized)																
1/8	3/64	0.06	200	200	200	200	200	200	180	120	8320G136	1	8320G146 ③	1	6.1F	10.6/F
1/8	1/16	0.09	150	125	125	125	125	125	180	120	8320G027	1	8320G051 ③	1	6.1F	10.6/F
1/8	1/16	0.09	235	250	250	160	160	160	200	150	8320G218	4	8320G227 ④	4	17.1/F	11.6/F
1/8	3/32	0.12	100	100	100	100	100	100	180	120	8320G029	1	8320G053 ③	1	6.1F	10.6/F
1/8	3/32	0.12	150	140	140	100	100	100	200	150	8320G219	4	8320G228 ④	4	10.1/F	11.6/F
1/8	1/8	0.21	40	40	40	40	40	40	180	120	8320G031	1	8320G055 ③	1	6.1F	10.6/F
1/8	1/8	0.21	70	70	70	55	55	55	200	150	8320G220	4	8320G229 ④	4	10.1/F	11.6/F
1/4	1/16	0.09	235	250	250	160	160	160	200	150	8320G192 ⑥	2	8320G232 ④	3	17.1/F	11.6/F
1/4	3/32	0.12	150	140	140	100	100	100	200	150	8320G194	2	8320G204 ③④⑥	3	10.1/F	11.6/F
1/4	1/8	0.25	70	70	70	55	55	55	200	150	8320G196	2	8320G205 ③④	3	10.1/F	11.6/F
1/4	11/64	0.35	40	40	40	30	30	30	200	150	8320G198	2	-	-	10.1/F	11.6/F

① Supplied with cast UR disc.
② On 50 hertz service, the watt rating for the 6.1/F solenoid is 8.1 watts; the watt rating for the 9.1/F solenoid is 11.1 watts.
③ Can be used for ***dry*** natural gas service with the EF prefix.
④ Constructions standard rated -40˚F (-40˚C) ambient temperature. EFX prefix and TPL # not required.
⑤ Water rating, CSA certified up to 232 psi.
⑥ ATEX/IECEx certified with prefix "EV".

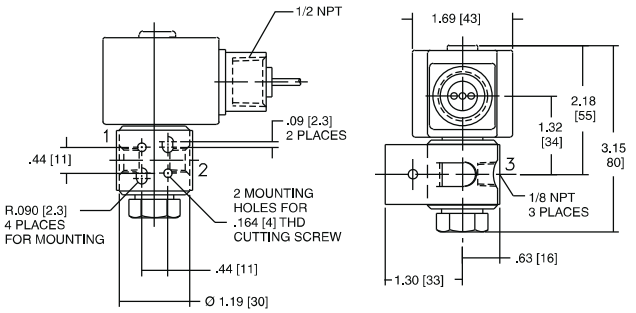
Specifications (Metric units)

Pipe Size (in)	Orifice Size (mm)	Kv Flow Factor (m3/h)	Operating Pressure Differential (bar) Max. AC Air-Inert Gas	Max. AC Water ⑤	Max. AC Lt. Oil @ 300 SSU	Max. DC Air-Inert Gas	Max. DC Water ⑤	Max. DC Lt. Oil @ 300 SSU	Max. Fluid Temp. °C AC	Max. Fluid Temp. °C DC	Brass Body Catalog Number	Brass Body Const. Ref.	Stainless Steel Body Catalog Number	Stainless Steel Body Const. Ref.	Watt Rating/ Class of Coil Insulation② AC	Watt Rating/ Class of Coil Insulation② DC
UNIVERSAL OPERATION (Pressure at any port)																
1/8	1.2	0.05	12	12	12	9	9	9	60	49	8320G130 ①	1	8320G140 ①	1	9.1F	10.6F
1/8	1.6	0.08	7	7	7	4	4	4	82	49	8320G001	1	8320G041 ③	1	9.1F	10.6F
1/8	1.6	0.08	12	12	12	9	9	9	93	66	8320G212	4	8320G221 ④⑥	4	17.1/F	22.6/F
1/8	2.4	0.10	3	3	3	3	3	3	82	49	8320G083	1	8320G087 ③	1	6.1/F	10.6/F
1/8	2.4	0.10	7	7	7	4	4	4	93	66	8320G213	4	8320G222 ④	4	17.1/F	11.6/F
1/8	3.2	0.18	2	2	2	1	1	1	82	49	8320G003	1	8320G043 ③	1	9.1/F	10.6/F
1/8	3.2	0.18	3	3	3	2	2	2	93	66	8320G214	4	8320G223 ④	4	17.1/F	11.6/F
1/4	1.6	0.08	9	9	9	5	5	5	93	66	8320G172	2	-	-	10.1/F	11.6/F
1/4	1.6	0.08	12	12	12	9	9	9	93	66	-	-	8320G230 ④⑥	3	17.1/F	22.6/F
1/4	2.4	0.10	7	7	7	4	4	4	93	66	8320G174	2	8320G200 ③④⑥	3	17.1/F	11.6/F
1/4	3.2	0.21	3	3	3	2	2	2	93	66	8320G176 ⑥	2	8320G201 ③④⑥	3	17.1/F	11.6/F
1/4	4.4	0.30	1	1	1	1	1	1	93	66	8320G178	2	-	-	10.1/F	11.6/F
NORMALLY CLOSED (Closed when de-energized) – PFD_{AVG} = 6.81 x 10^{-4}																
1/8	1.2	0.05	14	14	14	14	14	14	82	49	8320G132	1	8320G142 ③	1	6.1F	10.6/F
1/8	1.6	0.08	10	9	9	9	9	9	82	49	8320G013	1	8320G045 ③	1	6.1F	10.6/F
1/8	1.6	0.08	14	15	15	11	11	11	93	66	8320G215	4	8320G224 ④	4	17.1/F	11.6/F
1/8	2.4	0.10	7	7	7	7	7	7	82	49	8320G015	1	8320G047 ③	1	6.1F	10.6/F
1/8	2.4	0.10	10	10	10	8	8	8	93	66	8320G216	4	8320G225 ④	4	10.1/F	11.6/F
1/8	3.2	0.18	3	3	3	3	3	3	82	49	8320G017	1	8320G049 ③	1	6.1F	10.6/F
1/8	3.2	0.18	6	6	6	4	4	4	93	66	8320G217	4	8320G226 ④	4	10.1/F	11.6/F
1/4	1.6	0.08	14	15	15	11	11	11	93	66	8320G182 ⑥	2	8320G231 ④	3	17.1/F	11.6/F
1/4	2.4	0.10	10	10	10	8	8	8	93	66	8320G184	2	8320G202 ③④⑥	3	10.1/F	11.6/F
1/4	3.2	0.21	6	6	6	4	4	4	93	66	8320G186	2	8320G203 ③④⑥	3	10.1/F	11.6/F
1/4	4.4	0.30	3	3	3	2	2	2	93	66	8320G188	2	-	-	10.1/F	11.6/F
NORMALLY OPEN (Open when de-energized)																
1/8	1.2	0.05	14	14	14	14	14	14	82	49	8320G136	1	8320G146 ③	1	6.1F	10.6/F
1/8	1.6	0.08	10	9	9	9	9	9	82	49	8320G027	1	8320G051 ③	1	6.1F	10.6/F
1/8	1.6	0.08	16	17	17	11	11	11	93	66	8320G218	4	8320G227 ④	4	17.1/F	11.6/F
1/8	2.4	0.10	7	7	7	7	7	7	82	49	8320G029	1	8320G053 ③	1	6.1F	10.6/F
1/8	2.4	0.10	10	10	10	7	7	7	93	66	8320G219	4	8320G228 ④	4	10.1/F	11.6/F
1/8	3.2	0.18	3	3	3	3	3	3	82	49	8320G031	1	8320G055 ③	1	6.1F	10.6/F
1/8	3.2	0.18	5	5	5	4	4	4	93	66	8320G220	4	8320G229 ④	4	10.1/F	11.6/F
1/4	1.6	0.08	16	17	17	11	11	11	93	66	8320G192 ⑥	2	8320G232 ④	3	17.1/F	11.6/F
1/4	2.4	0.10	10	10	10	7	7	7	93	66	8320G194	2	8320G204 ③④⑥	3	10.1/F	11.6/F
1/4	3.2	0.21	5	5	5	4	4	4	93	66	8320G196	2	8320G205 ③④	3	10.1/F	11.6/F
1/4	4.4	0.30	3	3	3	2	2	2	93	66	8320G198	2	-	-	10.1/F	11.6/F

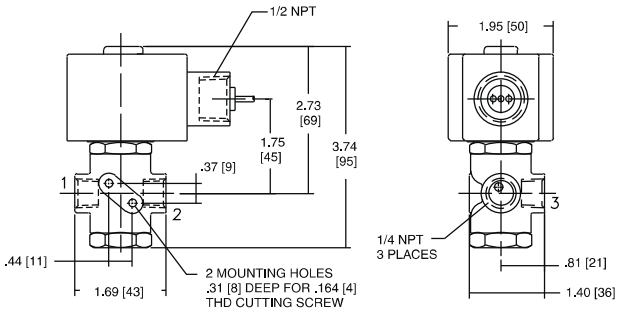
① Supplied with cast UR disc.
② On 50 hertz service, the watt rating for the 6.1/F solenoid is 8.1 watts; the watt rating for the 9.1/F solenoid is 11.1 watts.
③ Can be used for ***dry*** natural gas service with the EF prefix.
④ Constructions standard rated -40˚F (-40˚C) ambient temperature. EFX prefix and TPL # not required.
⑤ Water rating, CSA certified up to 16 bar.
⑥ ATEX/IECEx certified with prefix "EV".

Dimensions: inches (mm)

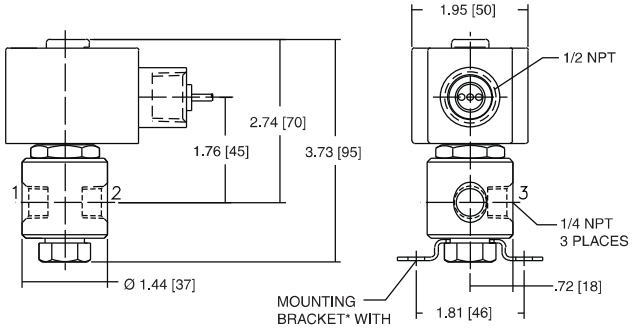
Const. Ref. 1



Const. Ref. 2

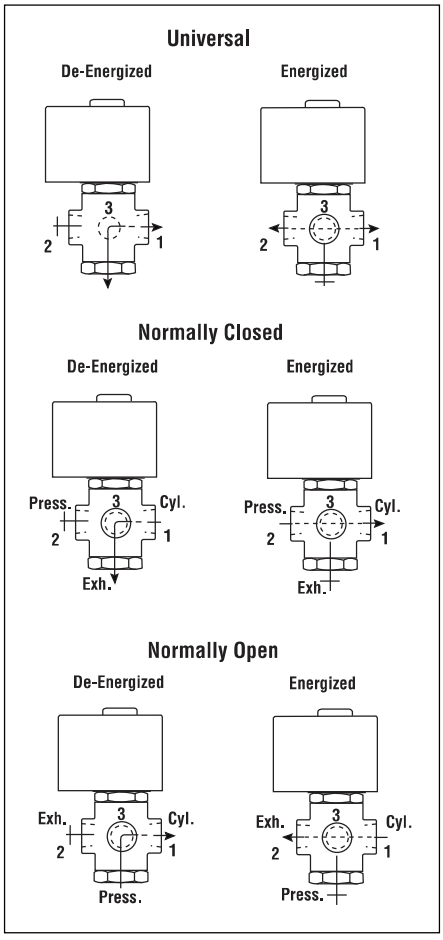


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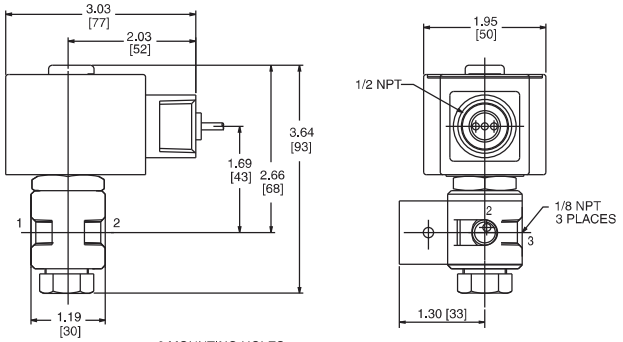


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FLOW DIAGRAMS



Const. Ref. 4



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