

### 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			
	DC Watts	AC			General Purpose		Explosionproof	
		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	-	17.1	40	70	238610	-	238614	-

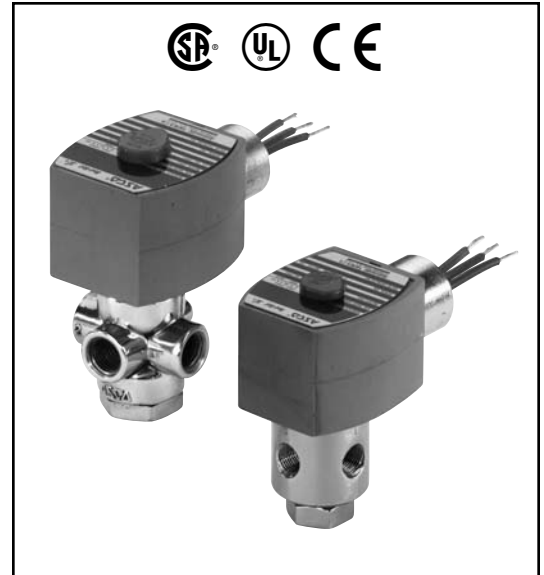
**Standard Voltages:** 24, 120, 240, 480 volts AC, 60 Hz (or 110, 220 volts AC, 50 Hz).  
 6, 12, 24, 120, 240 volts DC. Must be specified when ordering. Other voltages are available when required.

### Solenoid Enclosures

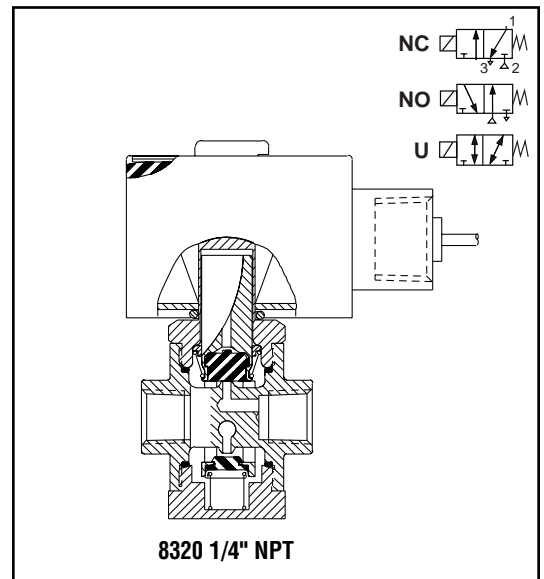
**Standard:** Watertight, Types 1, 2, 3, 3S, 4, and 4X.

**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.



3-WAY



### 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)

Refer to *Engineering Section* for details.

### Approvals

CSA certified. UL listed General Purpose Valves.

Meets applicable CE directives.

Refer to *Engineering Section* for details.

## Features

- Designed for high flow piloting with no minimum operating pressure required; e.g. power plants, refineries, chemical processing
- Balanced Poppet construction for high flow at minimum power levels
- PTFE rider rings and graphite-filled seals reduce friction and eliminate sticking to provide exceptional service life
- 316 Stainless Steel construction for highly corrosive atmospheres
- Available with manual reset  
*See Special Service Section*

## Construction

Valve Parts in Contact with Fluids		
Body	Brass	316 Stainless Steel
Core Tube	305 Stainless Steel	
Stem and Insert	303 Stainless Steel	
Core and Plugnut	430F Stainless Steel	
O-ring Holder	430F Stainless Steel	
Springs	302 Stainless Steel	
Seals and Discs	NBR	FKM
	VMQ (Low-Temperature Construction)	
Rider Ring	PTFE	

## Electrical

Standard Coil and Class of Insulation	Watt Rating and Power Consumption				Spare Coil Part Number			
	DC Watts	AC			General Purpose		Explosionproof	
		Watts	VA Holding	VA Inrush	AC	DC	AC	DC
F	11.6	12	12	12	276000	238710	276002	238714
<b>Standard Voltages:</b> 24/50-60, 120/50-60, 240/50-60, and 480/50-60, or 6, 12, 24, 120, and 240 DC.								

## Solenoid Enclosures

### Standard:

**For Brass Valves:** Standard Solenoid enclosure is Types, 1, 2, 3, 3S, 4, and 4X.

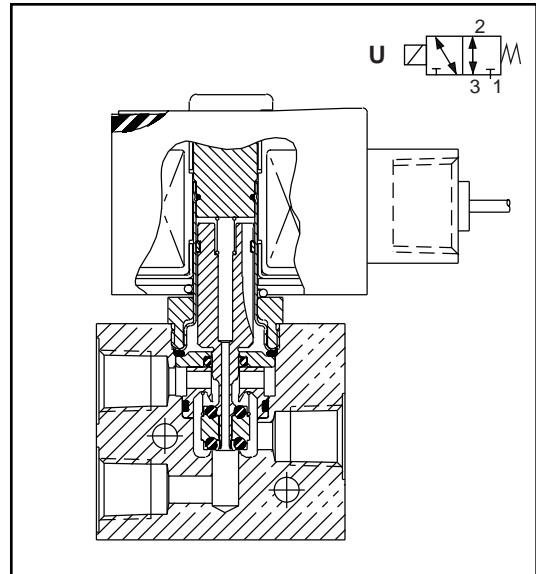
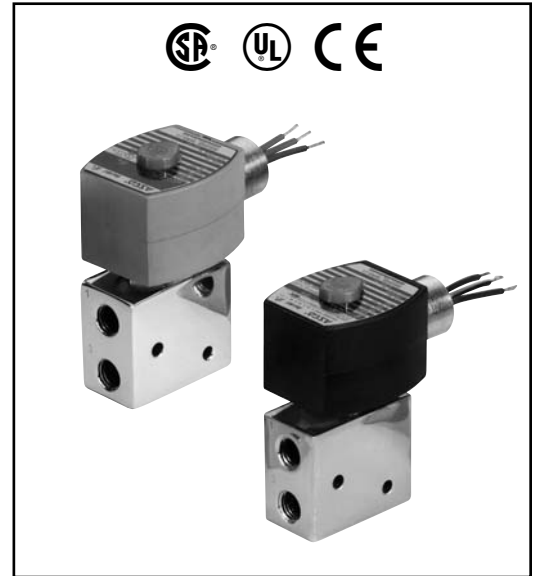
**For 316 Stainless Steel valves:** Standard Solenoid enclosure is Explosionproof and Watertight Types 3, 3S, 4, 4X, 6, and 6P.

**Optional:** Explosionproof and Watertight, Types 3, 3S, 4, 4X, 6, 6P, 7, and 9. (To order, add prefix "EF" or, for Explosionproof Stainless Steel trim and hub on Brass-Bodied valves, add "EV" to catalog number.)

*See Optional Features Section for other available options.*

### SIL (Safety Integrity Level) Information:

- PFD (Probability of Failure on Demand)  $<4 \times 10^{-7}$  at a confidence factor of 95%.
- SFF (Safe Failure Fraction) according to IEC 61508-2 Table A1 is  $\geq 0.99$ .
- Only constructions without manual operators apply to the above criteria.



## Nominal Ambient Temp. Ranges

**8327G041, 042, 021, 022, 031, 032:**

-4°F to 131°F (-20°C to 55°C)

**8327G051 and 052:**

-40°F to 131°F (-40°C to 55°C)

*Refer to Engineering Section for details.*

## Approvals

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

*Refer to Engineering Section for details.*

3-WAY

**Specifications (English units)**

Pipe Size (ins.)	Orifice Size (ins.)	Cv Flow Factor		Maximum Operating Pressure Differential (psi)			Max. Fluid Temp. °F	Brass Body	316 Stainless Steel Body	Const. Ref.	Watt Rating/Class of Coil Insulation	
		Ports 1-2	Ports 2-3	Air-Inert Gas	Water	Light Oil @ 300 SSU		Catalog Number	Catalog Number		AC	DC
<b>UNIVERSAL OPERATION (Pressure at any port)</b>												
1/4	1/4	.49	.56	150	150	150	176	8327G041	-	1	12.0/F	11.6/F
1/4	1/4	.49	.56	150	150	150	248	-	EV8327G042	1	12.0/F	11.6/F
<b>UNIVERSAL LOW-TEMPERATURE OPERATION (Pressure at any port)</b>												
1/4	1/4	.49	.56	150	-	-	131	8327G051	-	1	12.0/F	11.6/F
1/4	1/4	.49	.56	150	-	-	131	-	EV8327G052	1	12.0/F	11.6/F

**Specifications (Metric units)**

Pipe Size (ins.)	Orifice Size (mm)	Kv Flow Factor (m3/h)		Maximum Operating Pressure Differential (bar)			Max. Fluid Temp. °C	Brass Body	316 Stainless Steel Body	Const. Ref.	Watt Rating/Class of Coil Insulation	
		Ports 1-2	Ports 2-3	Air-Inert Gas	Water	Light Oil @ 300 SSU		Catalog Number	Catalog Number		AC	DC
<b>UNIVERSAL OPERATION (Pressure at any port)</b>												
1/4	6	.42	.48	10	10	10	80	8327G041	-	1	12.0/F	11.6/F
1/4	6	.42	.48	10	10	10	120	-	EV8327G042	1	12.0/F	11.6/F
<b>UNIVERSAL LOW-TEMPERATURE OPERATION (Pressure at any port)</b>												
1/4	6	.42	.48	10	-	-	55	8327G051	-	1	12.0/F	11.6/F
1/4	6	.42	.48	10	-	-	55	-	EV8327G052	1	12.0/F	11.6/F

**Dimensions: inches (mm)**

**FLOW DIAGRAMS**

OPERATION	DE-ENERGIZED	ENERGIZED
NORMALLY CLOSED PRESSURE AT 3		
NORMALLY OPEN PRESSURE AT 1		
UNIVERSAL PRESSURE AT ANY PORT		

**Const. Ref. 1**

**IMPORTANT: Valves may be mounted in any position.**

**Specifications (English units)**

Pipe Size (ins.)	Orifice Size (ins.)	Cv Flow Factor	Operating Pressure Differential (psi)						Max. Fluid Temp. °F		Brass Body		Stainless Steel Body		Watt Rating/Class of Coil Insulation <sup>②</sup>	
			Max. AC			Max. DC			AC	DC	Catalog Number	Const. Ref.	Catalog Number	Const. Ref.	AC	DC
			Air-Inert Gas	Water	Lt. Oil @ 300 SSU	Air-Inert Gas	Water	Lt. Oil @ 300 SSU								
<b>UNIVERSAL OPERATION (Pressure at any port)</b>																
1/8	3/64	.06	175	175	175	125	125	125	140	120	8320G130 ①	1	8320G140 ①	1	9.1/F	10.6/F
1/8	1/16	.09	100	100	100	65	65	65	180	120	8320G001	1	8320G041 ③	1	9.1/F	10.6/F
1/8	3/32	.12	50	50	50	50	50	50	180	120	8320G083	1	8320G087 ③	1	6.1/F	10.6/F
1/8	1/8	.21	30	30	30	20	20	20	180	120	8320G003	1	8320G043 ③	1	9.1/F	10.6/F
1/4	1/16	.09	125	130	130	75	75	75	200	150	8320G172	2	-	-	10.1/F	11.6/F
1/4	3/32	.12	100	100	100	60	60	60	200	150	8320G174	2	8320G200 ③	3	17.1/F	11.6/F
1/4	1/8	.25	50	50	50	25	25	25	200	150	8320G176	2	8320G201 ③	3	17.1/F	11.6/F
1/4	11/64	.35	20	20	20	12	12	12	200	150	8320G178	2	-	-	10.1/F	11.6/F
<b>NORMALLY CLOSED (Closed when de-energized)</b>																
1/8	3/64	.06	200	200	200	200	200	200	180	120	8320G132	1	8320G142 ③	1	6.1/F	10.6/F
1/8	1/16	.09	150	125	125	125	125	125	180	120	8320G013	1	8320G045 ③	1	6.1/F	10.6/F
1/8	3/32	.12	100	100	100	100	100	100	180	120	8320G015	1	8320G047 ③	1	6.1/F	10.6/F
1/8	1/8	.21	40	40	40	40	40	40	180	120	8320G017	1	8320G049 ③	1	6.1/F	10.6/F
1/4	1/16	.09	210	225	225	160	160	160	200	150	8320G182	2	-	-	17.1/F	11.6/F
1/4	3/32	.12	150	150	150	115	115	115	200	150	8320G184	2	8320G202 ③	3	10.1/F	11.6/F
1/4	1/8	.25	85	85	85	60	60	60	200	150	8320G186	2	8320G203 ③	3	10.1/F	11.6/F
1/4	11/64	.35	45	45	45	25	25	25	200	150	8320G188	2	-	-	10.1/F	11.6/F
<b>NORMALLY OPEN (Open when de-energized)</b>																
1/8	3/64	.06	200	200	200	200	200	200	180	120	8320G136	1	8320G146 ③	1	6.1/F	10.6/F
1/8	1/16	.09	150	125	125	125	125	125	180	120	8320G027	1	8320G051 ③	1	6.1/F	10.6/F
1/8	3/32	.12	100	100	100	100	100	100	180	120	8320G029	1	8320G053 ③	1	6.1/F	10.6/F
1/8	1/8	.21	40	40	40	40	40	40	180	120	8320G031	1	8320G055 ③	1	6.1/F	11.6/F
1/4	1/16	.09	250	250	250	160	160	160	200	150	8320G192	2	-	-	17.1/F	11.6/F
1/4	3/32	.12	150	140	140	100	100	100	200	150	8320G194	2	8320G204 ③	3	10.1/F	11.6/F
1/4	1/8	.25	70	70	70	55	55	55	200	150	8320G196	2	8320G205 ③	3	10.1/F	11.6/F
1/4	11/64	.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.

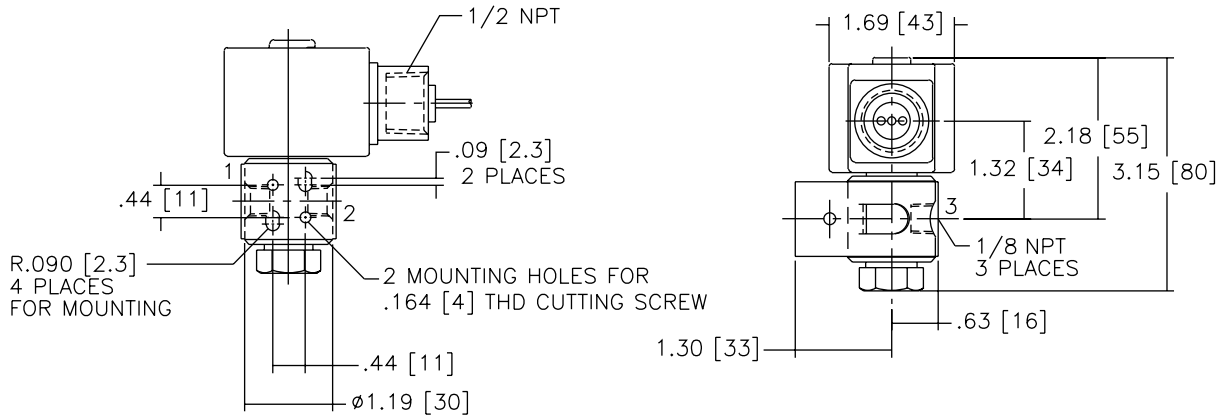
## Specifications (Metric units)

Pipe Size (ins.)	Orifice Size (mm)	Kv Flow Factor (m3/h)	Operating Pressure Differential (bar)						Max. Fluid Temp. °C		Brass Body		Stainless Steel Body		Watt Rating/ Class of Coil Insulation <sup>②</sup>	
			Max. AC			Max. DC			AC	DC	Catalog Number	Const. Ref.	Catalog Number	Const. Ref.	AC	DC
			Air-Inert Gas	Water	Lt. Oil @ 300 SSU	Air-Inert Gas	Water	Lt. Oil @ 300 SSU								
<b>UNIVERSAL OPERATION (Pressure at any port)</b>																
1/8	1.2	.05	12	12	12	9	9	9	60	49	8320G130 ①	1	8320G140 ①	1	9.1/F	10.6/F
1/8	1.6	.08	7	7	7	4	4	4	82	49	8320G001	1	8320G041 ③	1	9.1/F	10.6/F
1/8	2.4	.10	3	3	3	3	3	3	82	49	8320G083	1	8320G087 ③	1	6.1/F	10.6/F
1/8	3.2	.18	2	2	2	1	1	1	82	49	8320G003	1	8320G043 ③	1	9.1/F	10.6/F
1/4	1.6	.08	9	9	9	5	5	5	93	65	8320G172	2	-	-	10.1/F	11.6/F
1/4	2.4	.10	7	7	7	4	4	4	93	65	8320G174	2	8320G200 ③	3	17.1/F	11.6/F
1/4	3.2	.21	3	3	3	2	2	2	93	65	8320G176	2	8320G201 ③	3	17.1/F	11.6/F
1/4	4.4	.30	1	1	1	1	1	1	93	65	8320G178	2	-	-	10.1/F	11.6/F
<b>NORMALLY CLOSED (Closed when de-energized)</b>																
1/8	1.2	.05	14	14	14	14	14	14	82	49	8320G132	1	8320G142 ③	1	6.1/F	10.6/F
1/8	1.6	.08	10	9	9	9	9	9	82	49	8320G013	1	8320G045 ③	1	6.1/F	10.6/F
1/8	2.4	.10	7	7	7	7	7	7	82	49	8320G015	1	8320G047 ③	1	6.1/F	10.6/F
1/8	3.2	.18	3	3	3	3	3	3	82	49	8320G017	1	8320G049 ③	1	6.1/F	10.6/F
1/4	1.6	.08	14	16	16	11	11	11	93	65	8320G182	2	-	-	17.1/F	11.6/F
1/4	2.4	.10	10	10	10	8	8	8	93	65	8320G184	2	8320G202 ③	3	10.1/F	11.6/F
1/4	3.2	.21	6	6	6	4	4	4	93	65	8320G186	2	8320G203 ③	3	10.1/F	11.6/F
1/4	4.4	.30	3	3	3	2	2	2	93	65	8320G188	2	-	-	10.1/F	11.6/F
<b>NORMALLY OPEN (Open when de-energized)</b>																
1/8	1.2	.05	14	14	14	14	14	14	82	48	8320G136	1	8320G146 ③	1	6.1/F	10.6/F
1/8	1.6	.08	10	9	9	9	9	9	82	48	8320G027	1	8320G051 ③	1	6.1/F	10.6/F
1/8	2.4	.01	7	7	7	7	7	7	82	48	8320G029	1	8320G053 ③	1	6.1/F	10.6/F
1/8	3.2	.18	3	3	3	3	3	3	82	48	8320G031	1	8320G055 ③	1	6.1/F	11.6/F
1/4	1.6	.08	17	17	17	11	11	11	93	65	8320G192	2	-	-	17.1/F	11.6/F
1/4	2.4	.10	10	10	10	7	7	7	93	65	8320G194	2	8320G204 ③	3	10.1/F	11.6/F
1/4	3.2	.21	5	5	5	4	4	4	93	65	8320G196	2	8320G205 ③	3	10.1/F	11.6/F
1/4	4.4	.30	3	3	3	2	2	2	93	65	8320G198	2	-	-	10.1/F	11.6/F

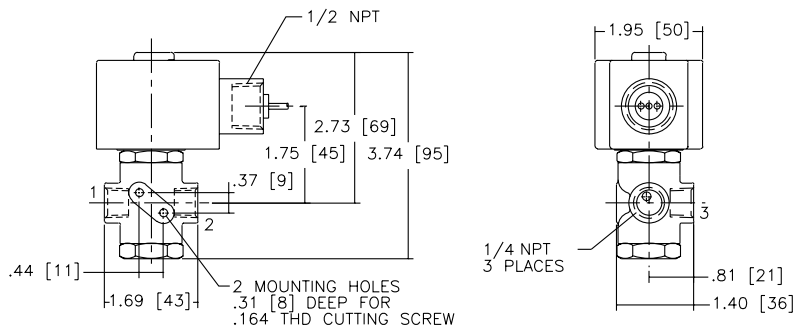
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 ② On 50 hertz service, the watt rating for the 6.1/F solenoid is 8.1 watts; the watt rating for the 9.1/F solenoid is 11.1 watts.  
 ③ Can be used for **dry** natural gas service with the EF prefix.

**Dimensions: inches (mm)**

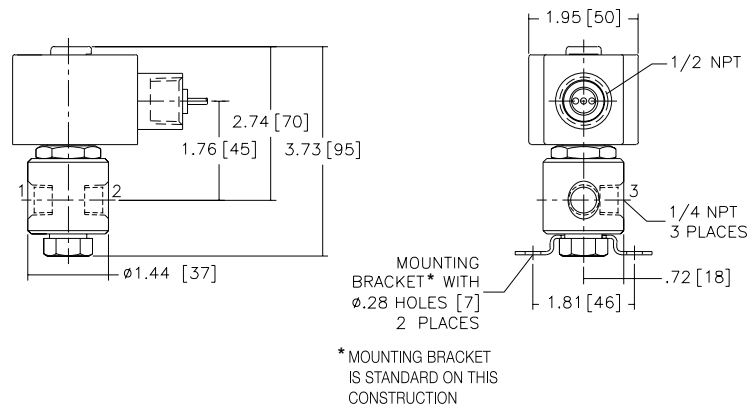
**Const. Ref. 1**



**Const. Ref. 2**



**Const. Ref. 3**



**FLOW DIAGRAMS**

