

# ASCO™ High-Flow Direct Acting Valves

Balanced Poppet Type | Brass and 316 Stainless Steel Bodies | 1/4" NPT

3/2  
SERIES  
327

## 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)
- Low power construction available for applications with power limitations
- NAMUR construction available

## Construction

	Standard Power		Low Power	
	Brass	316 Stainless Steel	Brass	316 Stainless Steel
<b>Body</b>	Brass	316 Stainless Steel	Brass	316 Stainless Steel
<b>Core Tube</b>	Stainless Steel		304 Stainless Steel	
<b>Stem and Insert</b>	303 Stainless Steel			
<b>Core and Plugnut</b>	430F Stainless Steel			
<b>O-ring Holder</b>	430F Stainless Steel			
<b>Springs</b>	302 Stainless Steel			
<b>Seals and Discs</b>	NBR	FKM	FKM	
	VMQ (Low-Temp. Construction)		FVMQ (Low-Temp. Construction), PTFE (Hydraulic Construction)	
<b>Rider Ring</b>	PTFE			

## Electrical

Standard Coil and Class of Insulation	Watt Rating and Power Consumption				Spare Coil Part Number				
	DC Watts	AC			General Purpose		Explosionproof		Explosionproof EV
		Watts	VA Holding	VA Inrush	AC	DC	AC	DC	DC
F	11.6	12	12	12	276000	238710	276002	238714	-
F	2.0	-	-	-	-	501695	-	501696	521364
F	2.4	-	-	-	-	-	-	521368	521372
H	2.7	-	-	-	-	440162	-	501694	521365
H	2.9	-	-	-	-	-	-	521369	521373
H	3.4	-	-	-	-	-	-	501694	521365

**Note.** See next page for low power electrical information.

## 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.

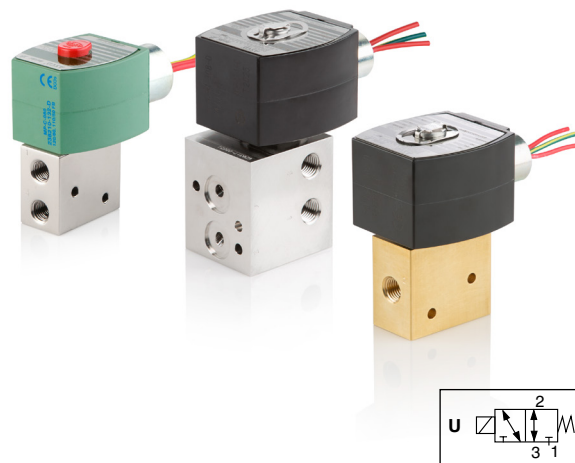
**Optional:** Explosionproof and Watertight, Types 3, 3S, 4, 4X, 6, 6P, 7, and 9. (To order, add prefix "EF" or, for Explosionproof Stainless Steel trim and hub on Brass-Bodied valves, add "EV" to catalog number.

See Optional Features Section for other available options.

### SIL (Safety Integrity Level) Information:\*

- SIL 3 capable, see engineering for FITs information.

\*Excludes constructions with manual operators



## Nominal Ambient Temp. Ranges

**8327G041 & 042:** -4°F to 131°F (-20°C to 55°C)

**8327G051 & 052:** -40°F to 131°F (-40°C to 55°C)

**8327H301, 302 & 305:**

Class F: -4°F to 140°F (-20°C to 60°C)

Class H: -4°F to 194°F (-20°C to 90°C)

**8327H311 & 312:** -58°F to 140°F (-50°C to 60°C)

**X327532287001F1, X327532287002F1:**

-40°C to 60°C (-40°F to 140°F)

Refer to Engineering Section for details.

## Approvals

- UL & CSA solenoid only approvals for Explosionproof versions (8327 H Series)
- Meets applicable CE directives (General Purpose versions only)
- CSA certified, UL listed General Purpose Valves for (8327 G Series) (Excludes low-power General Purpose coil constructions)

Explosionproof/EV constructions carry:

- ATEX/IECEx approvals
  - ATEX: II2G Ex db mb IIC Tx Gb  
II2D Ex mb tb IIIC Txx Db
  - IECEx: Ex db mb IIC Tx Gb  
Ex mb tb IIIC Txx Db
  - SIL 3 capable per IEC 61508. Third party certification by Exida.
- Refer to Engineering Section for details.

### Electrical - Low Power

Low Power Description	Wattage	Max. Ambient Temp.	UL/CSA T Code*	ATEX/IECEX T Code*	Insulation Class
Standard Ambient Version	2.0	140°F (60°C)	T6/85	T6/85°C	F
Surge Suppression Version	2.4	140°F (60°C)			F
High Ambient Version	2.7	194°F (90°C)	T5/100 (T6/85 @ 70°C Amb.)	T4/135 (T5/100 @ 80°C Amb.)	H
Surge Suppression Version High Ambient	2.9	194°F (90°C)			H
Battery Charging Circuit Version	3.4	194°F (90°C)			H

\* Explosion-proof version only

Low Power Description	Prefix	Wattage	Voltage (DC)	Min Pull In (mA)	Drop Out (mA)	Coil Resistance @68°F (20°C) (ohms)
Standard Ambient Version	-	2.0W	12V	108	39.7	75
			24V	50	19	290
			48V	28	9.8	1155
			120V	10	3.7	7255
Surge Suppression Version (Explosionproof version only)	MF	2.4W	12V	115	42	53
			24V	54	20	235
			48V	28	11	995
			120V	12	4.3	6075
High Ambient Version	HT	2.7W	12V	117	41	60
			24V	57	19.7	215
			48V	29	10	920
			120V	11	4	5700
Surge Suppression Version High Ambient (Explosionproof version only)	MH	2.9W	12V	118	41	46
			24V	59	18.7	185
			48V	30	9.4	810
			120V	12	4	5115
Battery Charging (Explosionproof version only)	HC	3.4W	125V	12	4.3	4635

### Specifications English (Metric units)

Pipe Size (in)	Orifice Size (in)	Cv Flow (Kv = m³/hr)		Maximum Operating Pressure Differential psi (bar)			Max. Fluid Temp. °F (°C)	Catalog Number		Const. Ref.	Watt Rating/ Class of Coil Insulation	
		Ports 1-2	Ports 2-3	Air-Inert Gas	Water	Light Oil @ 300 SSU		Brass Body	316 Stainless Steel Body		AC	DC
<b>UNIVERSAL OPERATION (Pressure at any port)</b>												
1/4	1/4	0.49 (0.42)	0.56 (0.48)	150 (10.3)	150 (10.3)	150 (10.3)	176 (80)	8327G041	-	1	12.0/F	11.6/F
1/4	1/4	0.49 (0.42)	0.56 (0.48)	150 (10.3)	150 (10.3)	150 (10.3)	248 (120)	-	EV8327G042	1	12.0/F	11.6/F
<b>UNIVERSAL LOW-TEMPERATURE OPERATION (Pressure at any port)</b>												
1/4	1/4	0.49 (0.42)	0.56 (0.48)	150 (10.3)	-	-	131 (55)	8327G051	-	1	12.0/F	11.6/F
1/4	1/4	0.49 (0.42)	0.56 (0.48)	150 (10.3)	-	-	131 (55)	-	EV8327G052	1	12.0/F	11.6/F
<b>UNIVERSAL LOW-POWER OPERATION (Pressure at any port)</b>												
1/4	1/4	0.49 (0.42)	0.56 (0.48)	150 (10.3)	-	-	140 (60)	8327H311	8327H312	2	-	2.0/F ①
1/4	1/4	0.49 (0.42)	0.56 (0.48)	150 (10.3)	150 (10.3)	150 (10.3)	140 (60)	8327H301	8327H302	2	-	2.0/F ①
1/4	1/4	0.49 (0.42)	0.56 (0.48)	150 (10.3)	150 (10.3)	150 (10.3)	194 (90)	HT8327H301	HT8327H302	2	-	2.7/H ①
<b>UNIVERSAL LOW-POWER OPERATION NAMUR (Pressure at any port)</b>												
1/4	1/4	0.49 (0.42)	0.56 (0.48)	150 (10.3)	150 (10.3)	150 (10.3)	140 (60)	-	8327H305	3	-	2.0/F
1/4	1/4	0.49 (0.42)	0.56 (0.48)	150 (10.3)	150 (10.3)	150 (10.3)	194 (90)	-	HT8327H305	3	-	2.7/F
<b>NORMALLY CLOSED OPERATION (Pressure at port 3)</b>												
1/4	1/4	0.49 (0.42)	0.56 (0.48)	-	-	150 (10.3) ②	140 (60)	-	X327532287001F1 ③	2	-	2.0/F
1/4	1/4	0.49 (0.42)	0.56 (0.48)	-	-	150 (10.3) ②	140 (60)	-	X327532287002F1 ④	2	-	2.0/F

① Wattage will vary depending on prefix. ② Viscosity: 395 cST (1,800 SSU/SUS) maximum. Hydraulic Oils, UNIVIS HVI 13, MIL-H-5606 & Aeroshell Fluid #4.

③ X327532287001F1 - EF explosion-proof coil. ④ X327532287002F1 - EV explosion-proof coil.

# ASCO™ High-Flow Direct Acting Valves

Balanced Poppet Type | Brass and 316 Stainless Steel Bodies | 1/4" NPT

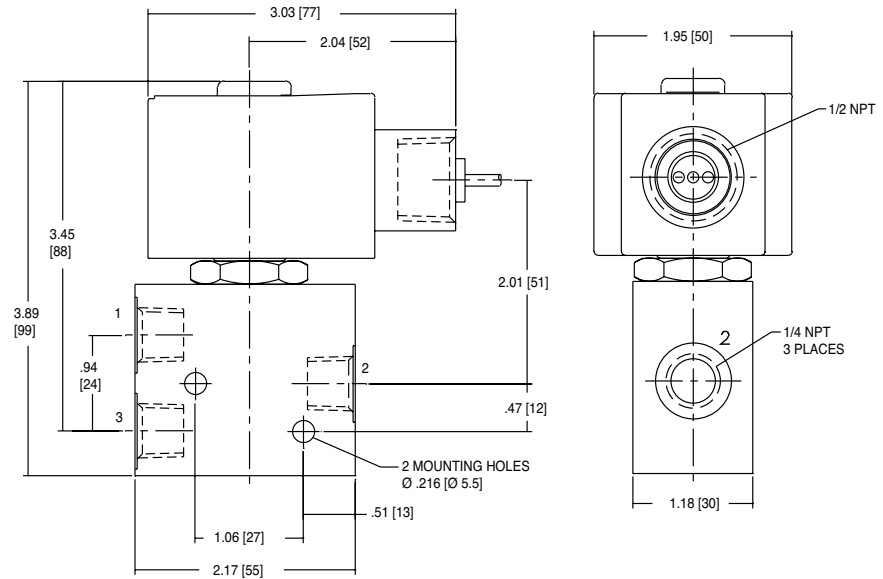
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## Dimensions: inches (mm)

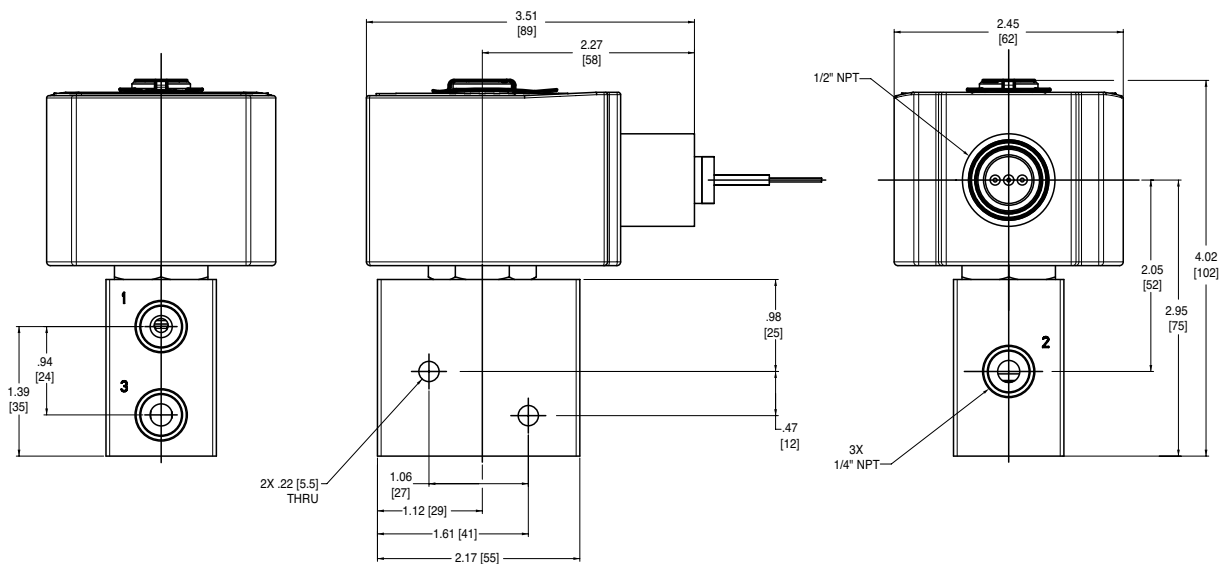
### Flow Diagrams

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

Const. Ref. 1



Const. Ref. 2



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

Dimensions: inches (mm)

Const. Ref. 3

