

# ASCO™ High-Flow Direct Acting Valves

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

3/2  
SERIES  
8327

## 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

## Construction

Body	Standard Power		Low Power	
	Brass	316 Stainless Steel	Brass	316 Stainless Steel
Core Tube	Stainless Steel		304 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	FKM	
	VMQ (Low-Temp. Construction)		FVMQ (Low-Temp. 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		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.

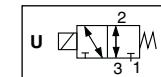
**Optional:** Explosionproof and Watertight, Types 3, 3S, 4, 4X, 6, 6P, 7, and 9.  
 (To order, add prefix "EF" or, for Explosionproof Stainless Steel trim and hub on Brass-Bodied valves, add "EV" to catalog number.)

*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



3-WAY



## 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:** 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)

*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 low-power 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	3500
			24V	50	19	6800
			48V	28	9.8	13450
			120V	10	3.7	33370
Surge Suppression Version (Explosionproof version only)	MF	2.4W	12V	115	42	2900
			24V	54	20	6200
			48V	28	11	12100
			120V	12	4.3	29450
High Ambient Version	HT	2.7W	12V	117	41	3150
			24V	57	19.7	5800
			48V	29	10	12050
			120V	11	4	29450
Surge Suppression Version High Ambient (Explosionproof version only)	MH	2.9W	12V	118	41	2750
			24V	59	18.7	5450
			48V	30	9.4	11000
			120V	12	4	27300
Battery Charging (Explosionproof version only)	HC	3.4W	125V	12	4.3	27000

## 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

① Wattage will vary depending on prefix.



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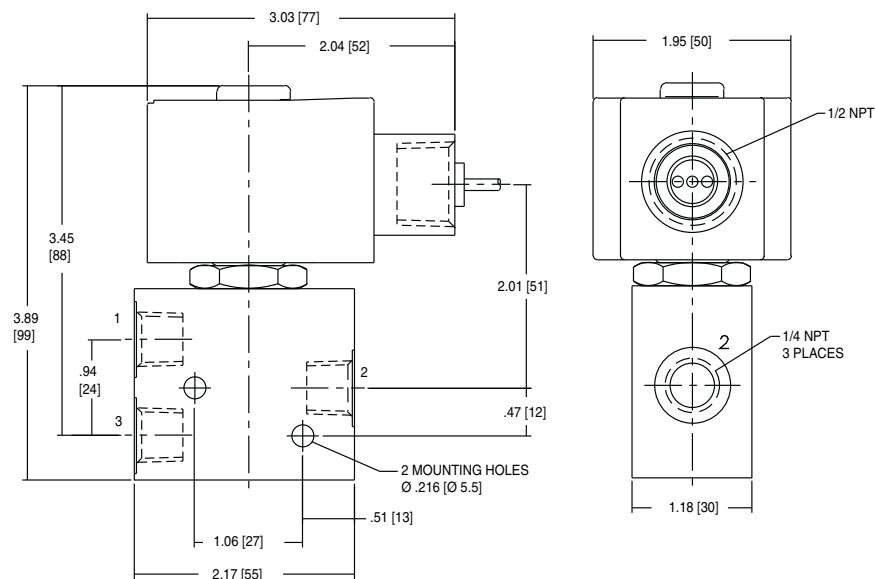
3/2  
SERIES  
327

## Dimensions: inches (mm)

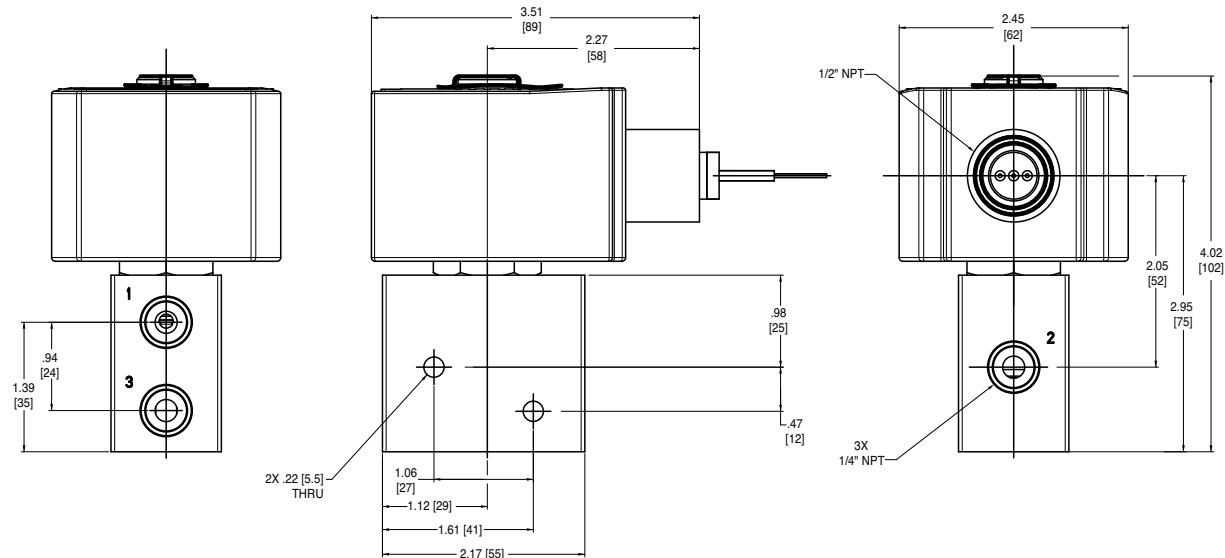
### Flow Diagrams

OPERATION	DE-ENERGIZED	ENERGIZED
NORMALLY CLOSED PRESSURE AT 3	1 → 2 3 ↓	1 → 2 3 ↗
NORMALLY OPEN PRESSURE AT 1	1 → 2 3 ↓	1 ↓ 3 → 2
UNIVERSAL PRESSURE AT ANY PORT	1 → 2 3 ↓	1 → 2 3 ↗

### Const. Ref. 1



### Const. Ref. 2



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