Thorne & Derrick **DERRICK** +44 (0) 191 490 1547

RNATIONAL www.heatingandprocess.com Balanced Poppet Type

High Flow Direct Acting Valves Brass and 316 Stainless Steel Bodies • 1/4" NPT

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						
ocais and Discs	VMQ (Low-Temperature Construction)							
Rider Ring	PTFE							

Electrical

Standard	W		g and Po	wer	Spare Coil Part Number				
Coil and			AC		General	Purpose	Explosionproof		
Class of	DC		VA	VA					
Insulation	Watts	Watts	Holding	Inrush	AC	DC	AC	DC	
F	11.6	12	12	12	276000	238710	276002	238714	

Standard Voltages: 24/50-60, 120/50-60, 240/50-60, and 480/50-60, or 6, 12, 24, 120, and 240 DC.

Solenoid Enclosures

Standard:

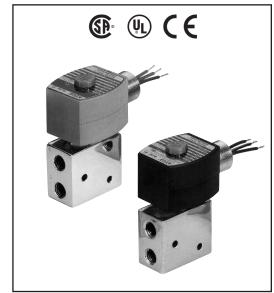
For Brass Valves: Standard Solenoid enclosure is Types, 1, 2, 3, 3S, 4, and 4X. For 316 Stainless Steel valves: Standard Solenoid enclosure is Explosionproof and Watertight Types 3, 3S, 4, 4X, 6, and 6P.

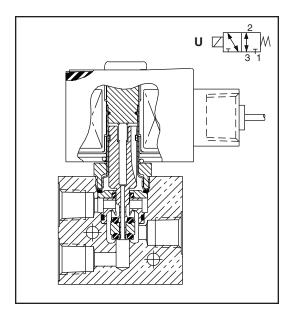
Optional: Explosionproof and Watertight, Types 3, 3S, 4, 4X, 6, 6P, 7, and 9. (To order, add prefix "EF" or, for Explosionproof Stainless Steel trim and hub on Brass-Bodied valves, add "EV" to catalog number.)

See Optional Features Section for other available options.

SIL (Safety Integrity Level) Information:

- PFD (Probability of Failure on Demand) <4x10⁻⁷ 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 and 042:

-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.

SIL 3 capable per IEC 61508. Third party certification by Exida.

Refer to Engineering Section for details.



Specifications (English units)

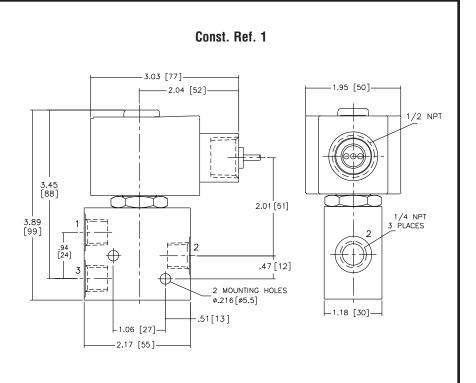
Pipe		Cv F	Flow ctor	Maximum Operating Pressure Differential (psi)		Max. Brass Body		316 Stainless Steel Body		Watt Rating/ Class of Coil Insulation		
Size	Orifice Size (in)	Ports 1-2	Ports 2-3	Air-Inert Gas	Water	Light Oil @ 300 SSU	Fluid Temp. °F	Catalog Number	Catalog Number	Const. Ref.	AC	DC
UNIVERSAL OPERATION (Pressure at any port)												
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
UNIVERSAL LOW-TEMPERATURE OPERATION (Pressure at any port)												
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	Orifice	Kv Flow Factor (m3/h)		Maximum Operating Pressure Differential (bar)			Max.	Brass Body	316 Stainless Steel Body		Watt Rating/ Class of Coil Insulation	
Size (in)	Size (mm)	Ports 1-2	Ports 2-3	Air-Inert Gas	Water	Light Oil @ 300 SSU	Fluid Temp. °C	Catalog Number	Catalog Number	Const. Ref.	AC	DC
UNIVERSAL OPERATION (Pressure at any port)												
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
UNIVERSAL LOW-TEMPERATURE OPERATION (Pressure at any port)												
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



IMPORTANT: Valves may be mounted in any position.

