

Shear-Seal® Directional Control

Series 422 Solenoid Valve

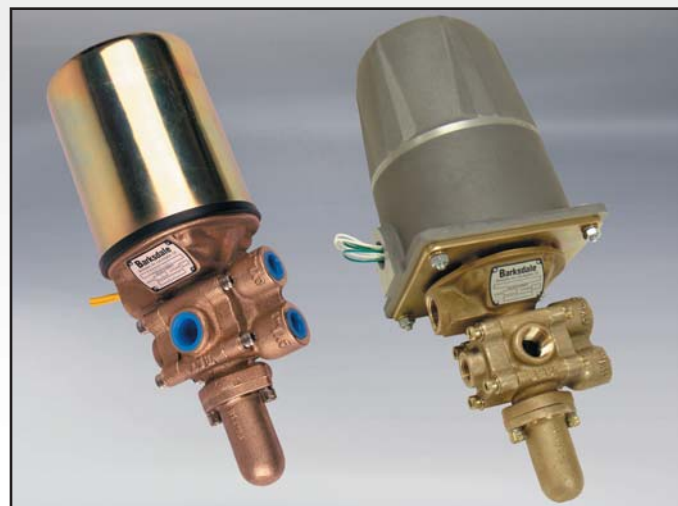
Features

- ▶ Original Shear-Seal® technology
- ▶ Explosion-Proof option
- ▶ Zero-leakage*
- ▶ Spring close with no power
- ▶ Flexible flow patterns
- ▶ Tolerates contaminants

Applications

- ▶ Mining operations
- ▶ Offshore oil platforms
- ▶ Refineries and chemical processing plants
- ▶ Power generation facilities
- ▶ Air or hydraulic test equipment

General Specifications**



Working Pressure:	Air (pneumatic) up to 1,500 psi (103 bar) Hydraulic oil or lubricated water, up to 3,000 psi (206 bar)
Pressure Drop:	9 psi at 2.5 gpm 32 psi at 4 gpm (For more detailed pressure drop and flow capacity information, see valve supplemental guide)
Max. Fluid Velocity:	20ft/sec (6.1 m/sec)
Cv Factor:	0.7
Min. Flow Diameter:	7/32 in. (5.6mm)
Back Pressure:	Must not exceed 250 psi (17.2 bar) at return port for satisfactory operation
Proof Pressure:	1-1/2 times working pressure except at return port
Burst Pressure:	2-1/2 times working pressure except at return port (3000 psi [206 bar])
Media Temperature Range:	-40° to +250°F (-40° to +121°C)

Electrical Data:	
Solenoid Voltage:	115V AC at 60 Hz (Alternative AC & DC voltages are available).
Current - Inrush:	16.8 amps
Current - Holding:	1.52 amps
Voltage Tolerance:	±10% of rated voltage
Solenoid Rating:	Continuous duty
Material of Construction:	
Slide:	400 series stainless steel
Body & Pressure Fittings:	Bronze
Pressure Seals:	Stainless Steel
Standard O-Ring:	Buna N
Back-up Rings:	Teflon®
Shipping Weight:	11.5 Lbs. / Explosion-Proof 20 Lbs.

* Less than four cc per minute

** See product configurator for additional options.

Flow Pattern	4-Way	3-Way		Shut-Off		Diverter
		Norm. Open	Norm. Closed	Norm. Open	Norm. Closed	
*Plug Port Marked "X"	None	Cyl. 2	Cyl. 1	Ret. & Cyl. 2	Ret. & Cyl. 1	Ret.
Normal Position Spring Loaded						
Energized Position						
ASA Symbol						

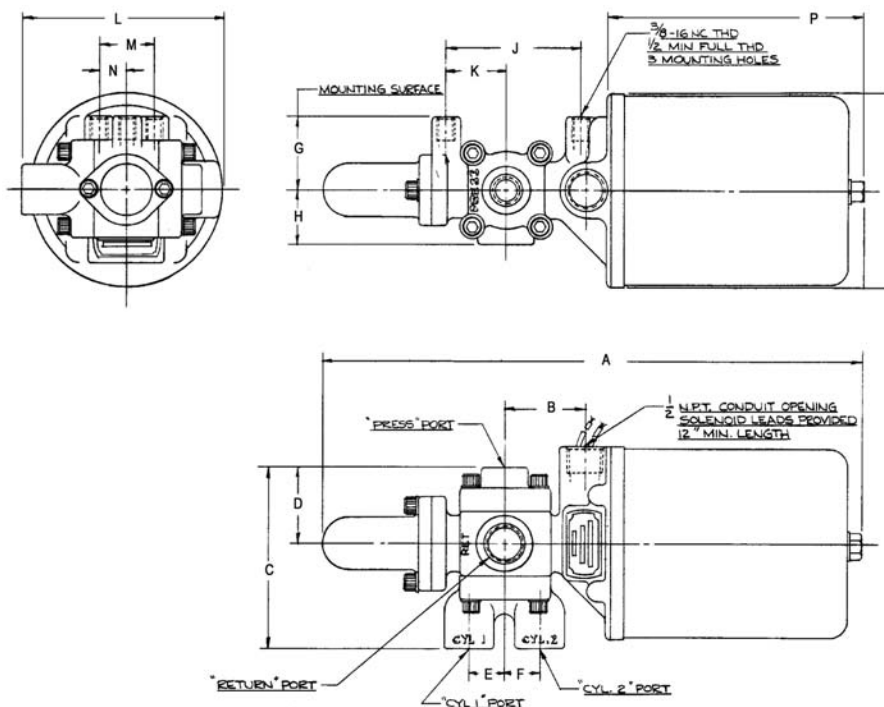
These Flow Patterns are obtainable from a single Standard Valve. Every valve is shipped with the necessary plugs

*To achieve the desired flow pattern, plug ports as shown.

Barksdale
CONTROL PRODUCTS

Barksdale, Inc./Barksdale GmbH
A Subsidiary of Crane Co.

Technical Drawings



Porting: 3/8" NPT except return port 1/2" NPT

Solenoid	A	B	C	D	E	F	G	H	J	K	L	M	N	P
422	11.562 (293.7)	1.312 (32.5)	3.875 (98.4)	1.625 (41.3)	.75 (19.1)	.75 (19.1)	1.50 (38.1)	1.156 (29.4)	2.875 (73.0)	1.281 (32.5)	4.125 (104.8)	1.187 (30.2)	.593 (15.1)	5.5 (138.7)
X422	14.437 (366.7)	3.593 (91.3)	3.875 (98.4)	1.625 (41.3)	.75 (19.1)	.75 (19.1)	1.50 (38.1)	1.156 (29.4)	2.875 (73.0)	1.281 (32.5)	5.00 (127)	1.187 (30.2)	.593 (15.1)	8.375 (212.7)

Product Configurator

Example:

Prefix

X

Explosion-proof solenoid cover (optional)

Part Number

422S3WS2A1

Oil or lubricated water, 3,000 psi max, 115V AC

422S3AS2A1

Air, 1,500 psi, 115V AC

Alternative voltage and DC Solenoids are available. Consult factory for more detail