

General Description

The DSH083, 3-way spool valves are used as low flow directional valves, pilot valves, or selector valves. They can be used in normally open or normally closed applications.

Operation

In the de-energized mode, the spool is positioned by spring force. The solenoid, when energized, directly shifts the spool against the spring, thus changing the flow path through the valve.

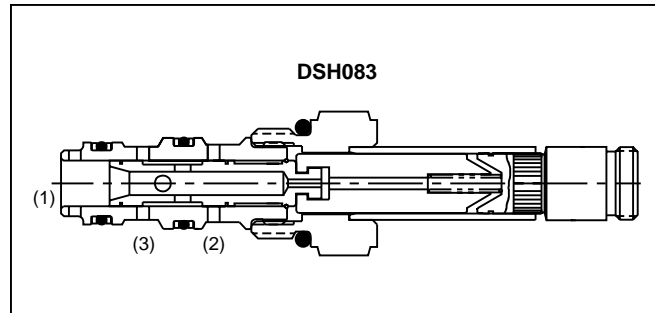
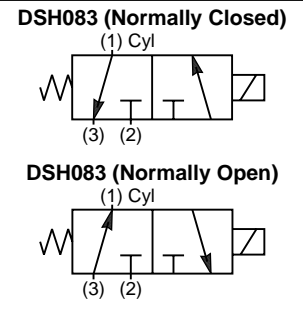
Features

- High flow capacity with reduced space requirements
- Standard valve bodies and common cavities
- One-piece encapsulated coil with minimal amperage draw
- Manual overrides, seal variations and other options available
- No dynamic seals
- Variety of coil terminations

Specifications

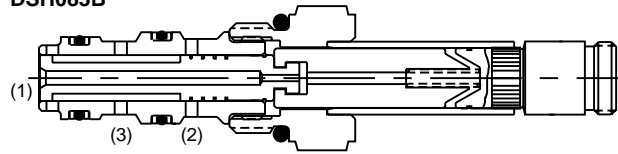
Rated Flow	DSH083
	N.O. 11.3 LPM (3.0 GPM)
	N.C. 7.5 LPM (2.0 GPM)
	Selector 5.6 LPM (1.5 GPM)
	DSH083B
	N.O. 9.4 LPM (2.5 GPM)
	N.C. 11.3 LPM (3.0 GPM)
	Selector 9.4 LPM (2.5 GPM)
	DSH083N
	N.O. 11.3 LPM (3.0 GPM)
	N.C. 9.4 LPM (2.5 GPM)
	Selector 11.3 LPM (3.0 GPM)
Maximum Inlet Pressure	345 Bar (5000 PSI) - Steel 210 Bar (3000 PSI) - Aluminum
Leakage	160 cc/min. (10 cu. in./min.) maximum at 345 Bar (5000 PSI)
Operating Temp. Range (Ambient)	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Cartridge Material	All parts steel. All operating parts hardened steel.
Body Material	Steel or Aluminum
Filtration	ISO Code 16/13, SAE Class 4 or better
Mounting	No restrictions
Cavity	Common Cavity No. C08-3

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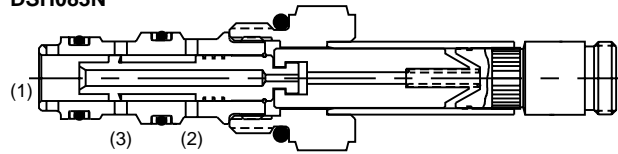


Construction

DSH083B



DSH083N



Solenoid Coil Specifications

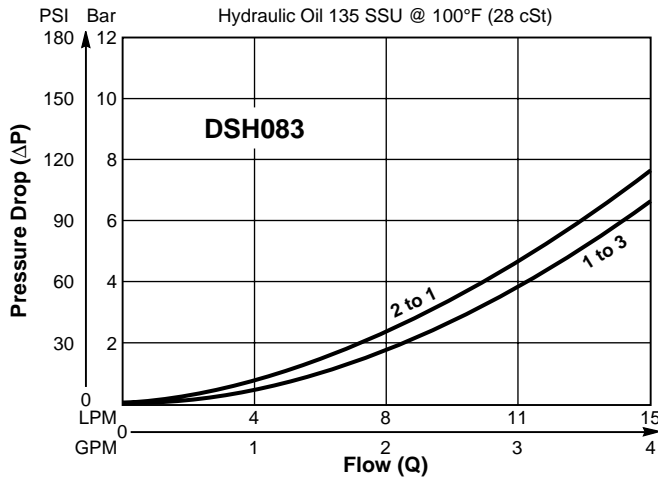
Voltage	Watts	Amps
10 VDC	14	1.45
12 VDC	14	1.17
24 VDC	14	0.57
120 VAC	14	.144
240 VAC	14	.079

Response Time (Dependent on flow and pressure)	50 ms to 150 ms
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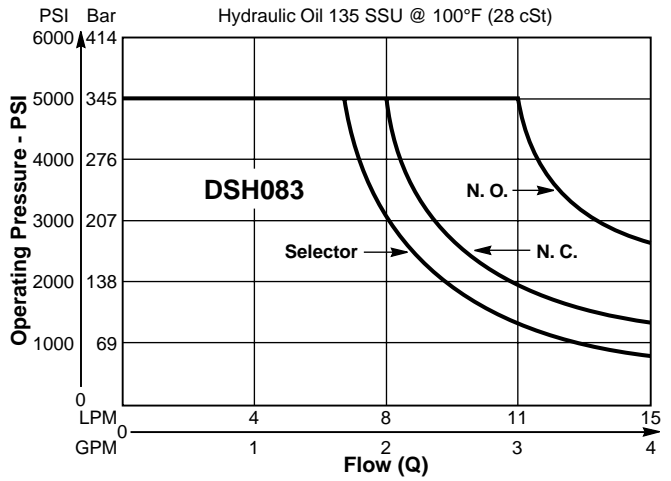
Wire Class	"H" for all voltages
A.C. Rectifiers	Integral full wave bridge

Performance Curves

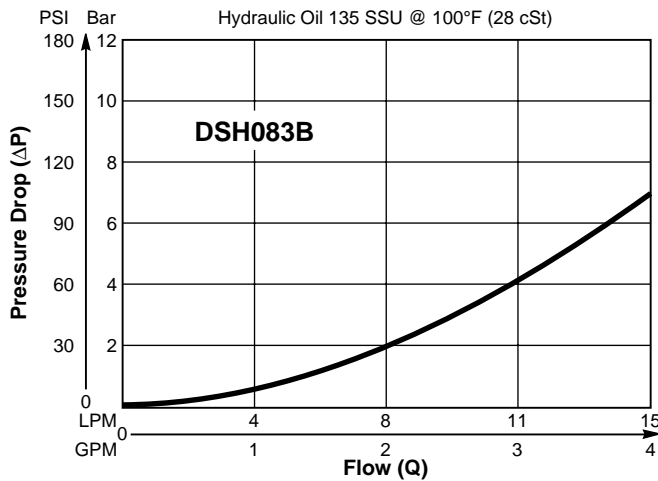
Pressure Drop vs. Flow (Through cartridge only)



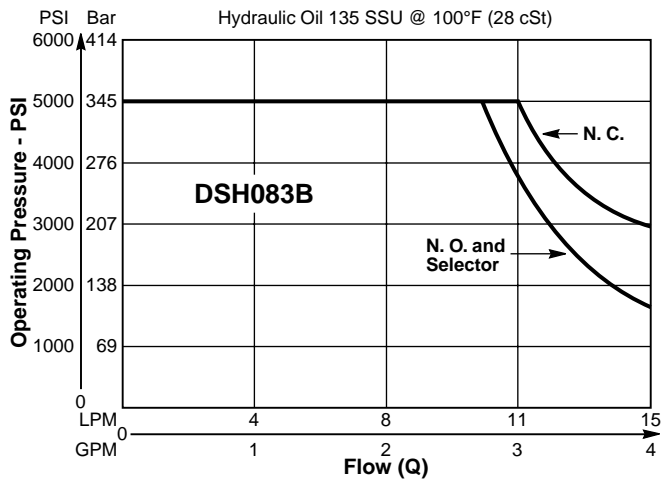
Operating Characteristics (Through cartridge only)



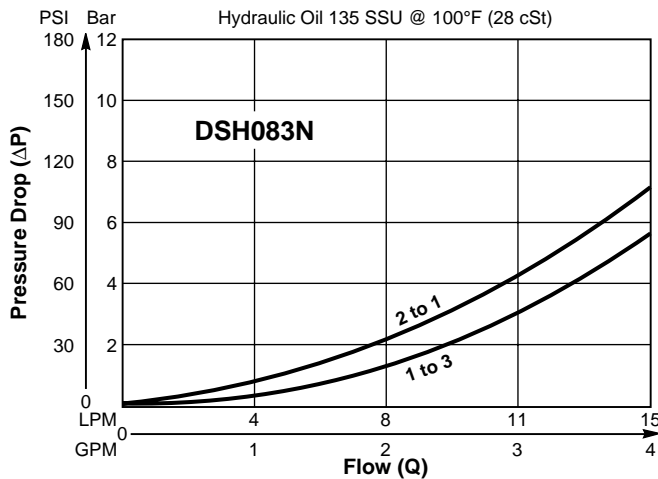
Pressure Drop vs. Flow (Through cartridge only)



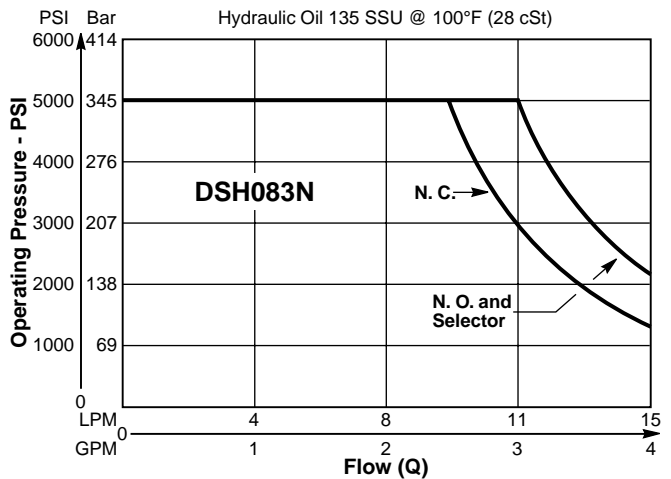
Operating Characteristics (Through cartridge only)



Pressure Drop vs. Flow (Through cartridge only)



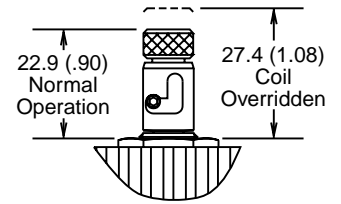
Operating Characteristics (Through cartridge only)



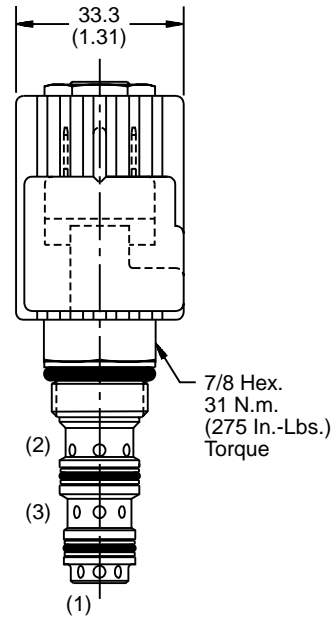
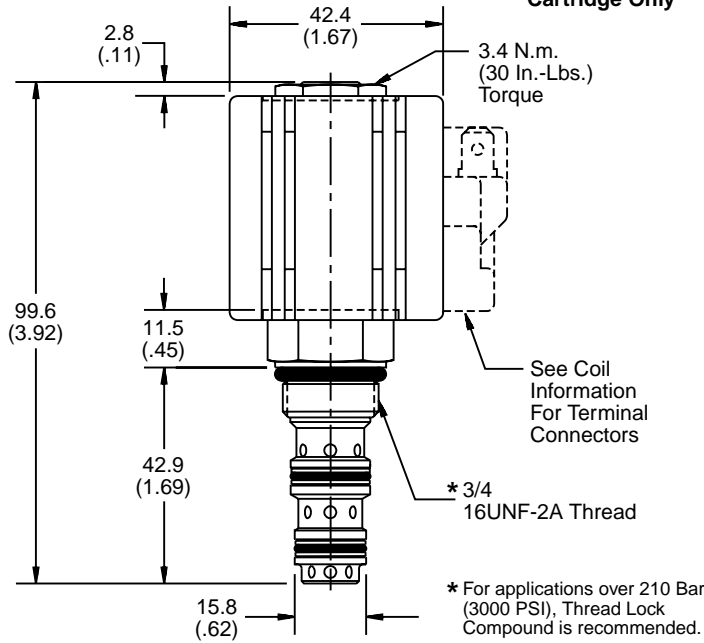
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*Inch equivalents for millimeter dimensions are shown in (**)

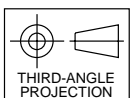
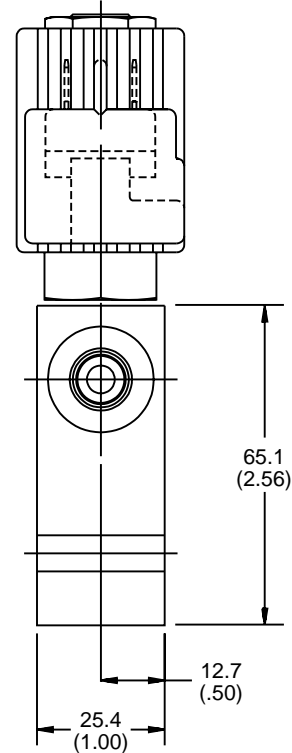
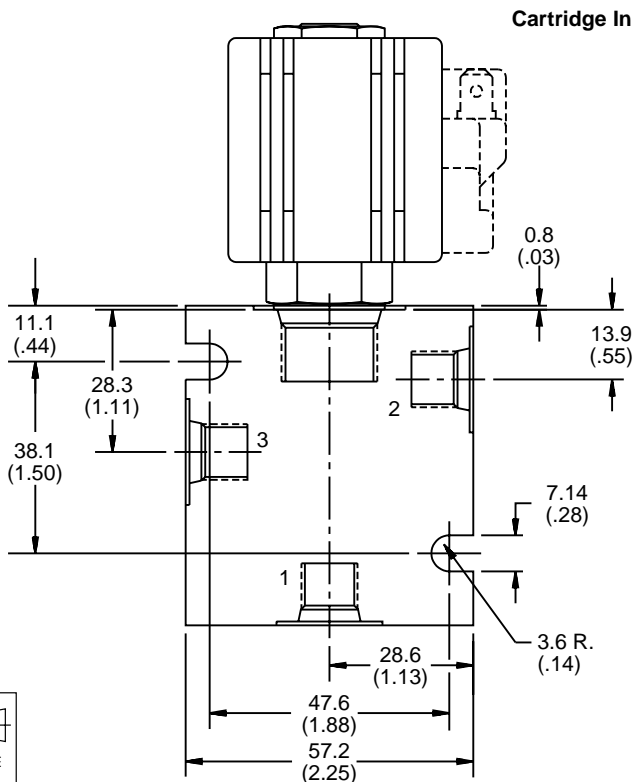
**Push and Twist
Manual Override**

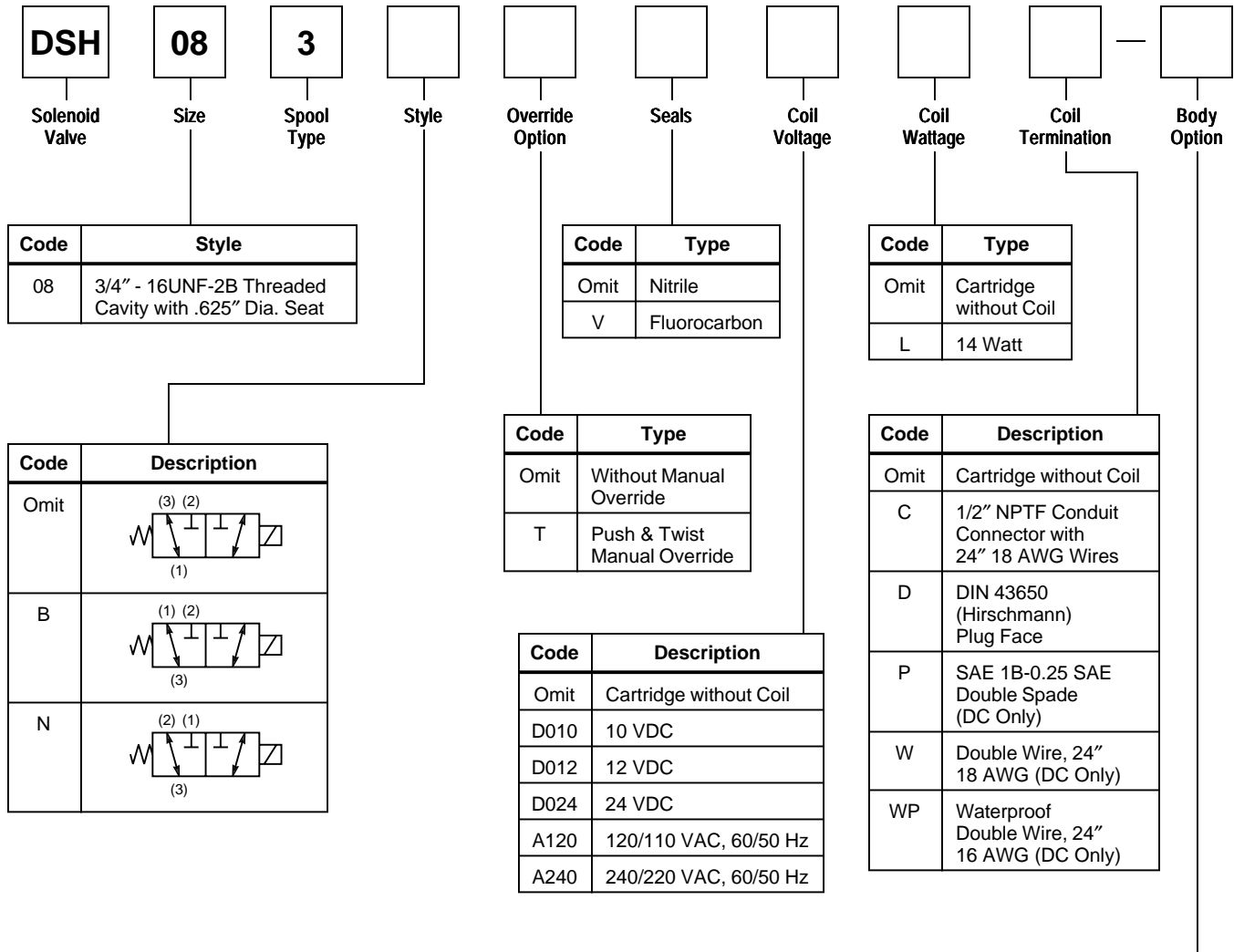


Cartridge Only



Cartridge In Body





Code	Port Size & Material
Omit	Cartridge Only
4P	1/4" NPTF (B08-3-4P) Steel
A4P	1/4" NPTF (B08-3-A4P) Aluminum
6P	3/8" NPTF (B08-3-6P) Steel
A6P	3/8" NPTF (B08-3-A6P) Aluminum
4T	SAE-4 (B08-3-4T) Steel
A4T	SAE-4 (B08-3-A4T) Aluminum
6T	SAE-6 (B08-3-6T) Steel
A6T	SAE-6 (B08-3-A6T) Aluminum
4B	1/4" BSPG (B08-3-4B) Steel
A4B	1/4" BSPG (B08-3-A4B) Aluminum
6B	3/8" BSPG (B08-3-6B) Steel
A6B	3/8" BSPG (B08-3-A6B) Aluminum

SERVICE PARTS

Coil Size

Code	Size
S8	1/2" I.D.
SW8	1/2" I.D.

Coil Wattage

Code	Type
L	14 Watts

Coil Termination

Code	Description
C	Conduit
D	DIN 43650
P	Double Spade
S	Double Screw
W	Double Wire
WP	Waterproof Double Wire

Coil Voltage

Code	Description
D010	10 VDC
D012	12 VDC
D024	24 VDC
A120	120 VAC
A240	240 VAC

DIN Connector:
See Coil Data Sheet

Coil Nut:
DSH083 — 118127-00

Nitrile Seal Kit:
DSH083 — SK8-3

Fluorocarbon Seal Kit:
DSH083 — SK8-3V

Notes: See Series 08 Coil Data Sheet. For other coil voltages and terminations, consult factory. S8 Coil applies to all terminations except WP. SW8 Coil applies to WP termination only.

Shipping Weight
 Cartridge Only .13 kg (.28 lbs.)
 Cartridge in Body .40 kg (.88 lbs.)

NOTE:
 If system pressure does not exceed 210 Bar (3000 PSI), aluminum bodies can be used. Higher pressures require steel bodies.