

Technical Information

General Description

3-Way Spool Valves. For additional information see Technical Tips on pages SV1-SV6.

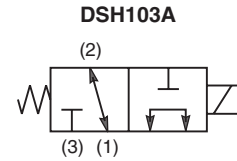


Features

- 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
- Polyurethane "D"-Ring eliminates need for backup rings
- Nylon inserted jam-nut provides secure holding in high vibration applications
- All external parts zinc plated

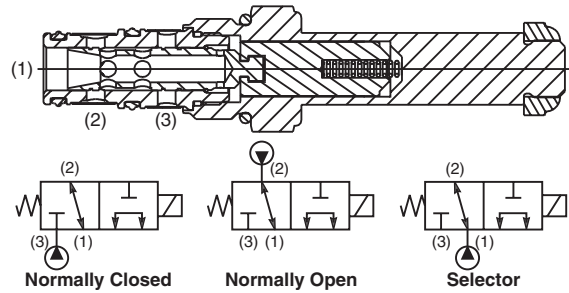
Specifications

Rated Flow	DSH103A	N.O.	17.0 LPM (4.5 GPM)
		N.C.	15.0 LPM (4.0 GPM)
		Selector	15.0 LPM (4.0 GPM)
	DSH103B	N.C.	30.0 LPM (8.0 GPM)
		Selector	30.0 LPM (8.0 GPM)
	DSH103C	N.O.	30.0 LPM (8.0 GPM)
	DSH103N	N.O.	15.0 LPM (4.0 GPM)
		N.C.	15.0 LPM (4.0 GPM)
		Selector	30.0 LPM (8.0 GPM)
	Maximum Inlet Pressure	350 Bar (5000 PSI)	
Leakage at 150 SSU (32 cSt)	160 cc/min. (10 in ³ /min.) DSH103B - 250 cc/min. (15 in ³ /min.) DSH103N - 250 cc/min. (15 in ³ /min.)		
Minimum Operating Voltage	85% of rated voltage at 20°C (72°F).		
Response Time	50 ms to 100 ms		
Cartridge Material	All parts steel. All operating parts hardened steel.		
Operating Temp. Range/Seals	-45°C to +93.3°C ("D"-Ring) (-50°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)		
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)		
Filtration	ISO Code 16/13, SAE Class 4 or better		
Approx. Weight	.19 kg (.42 lbs.)		
Cavity	C10-3 (See BC Section for more details)		
Form Tool	Rougher	NFT10-3R	
	Finisher	NFT10-3F	

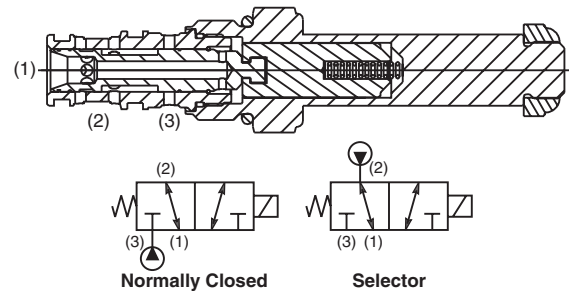


Construction/Symbols

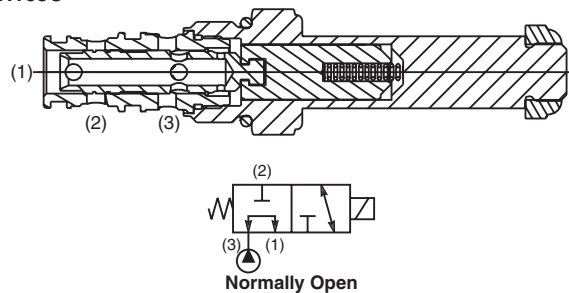
DSH103A



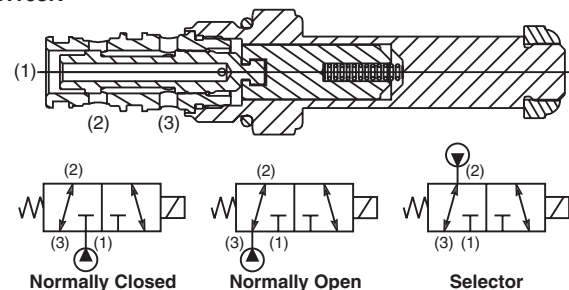
DSH103B



DSH103C



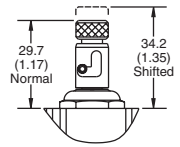
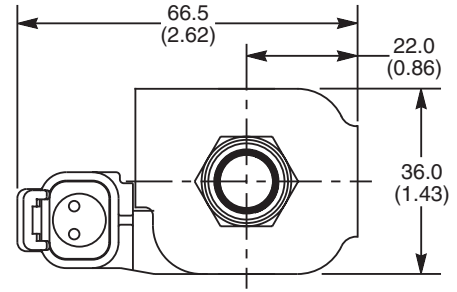
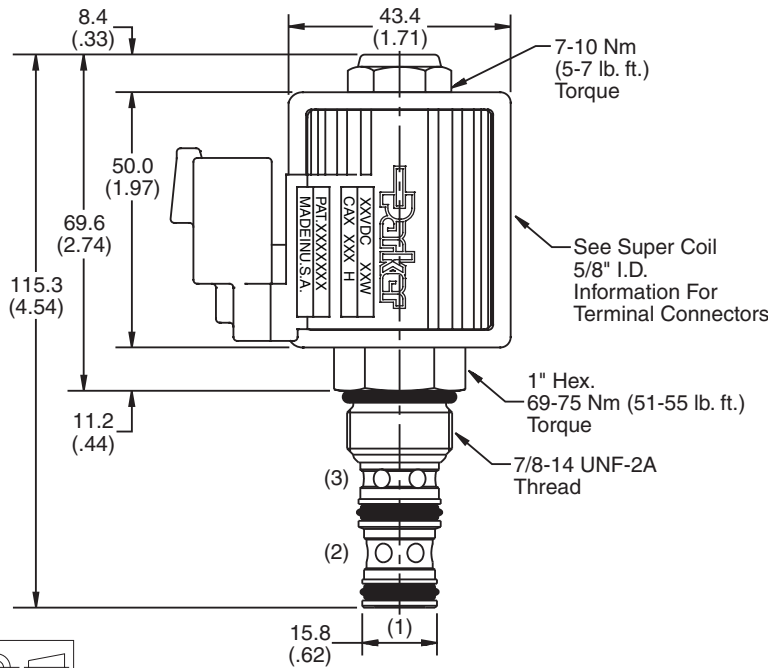
DSH103N



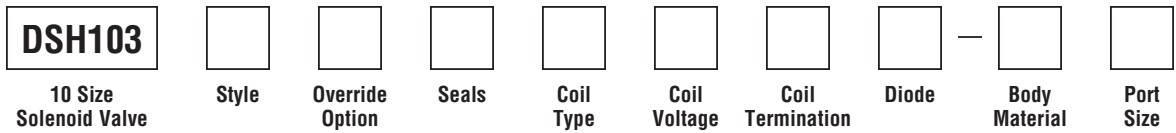
- CV** Check Valves
- SH** Shuttle Valves
- LM** Load/Motor Controls
- FC** Flow Controls
- PC** Pressure Controls
- LE** Logic Elements
- DC** Directional Controls
- MV** Manual Valves
- SV** Solenoid Valves
- PV** Proportional Valves
- CE** Coils & Electronics
- BC** Bodies & Cavities
- TD** Technical Data

Spool Type, 3-Way Valve Series DSH103

Dimensions Millimeters (Inches)



Ordering Information



Code	Style
A	
B	
C	
N	

Code	Override Options
Omit	None
T	Push & Twist (N.C. & N.O.)

Code	Seals / Kit No.
Omit	"D"-Ring / (SK10-3)
N	Nitrile / (SK10-3N)
V	Fluorocarbon / (SK10-3V)

Code	Coil Type
Omit	Without Coil
SP*	Super Coil - 28 Watts

*Recommended

Code	Coil Voltage
Omit	Without Coil
D012	12 VDC
D024	24 VDC
A120	120/110 VAC, 60/50 Hz
A240	240/220 VAC, 60/50 Hz

SP*	Coil Termination
Omit	Without Coil
C	Conduit With Leads
D	DIN Plug Face
A	Amp Jr. Timert†
S	Dual Spade†
L	Dual Lead Wire†
LS	Sealed Lead Wire†
H	Molded Deutsch†

*Recommended †DC Only

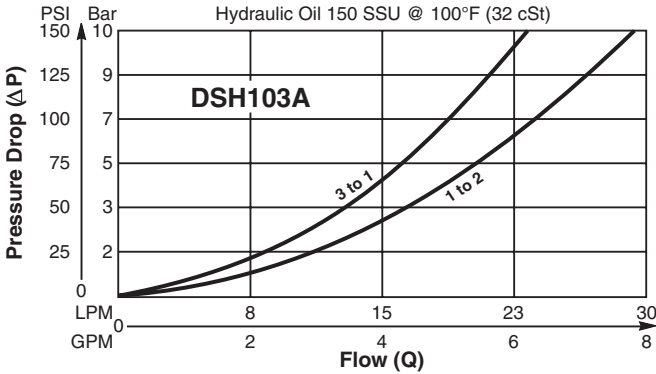
Code	Diode
Omit	None
R	Diode

Code	Body Material
Omit	Steel
A	Aluminum

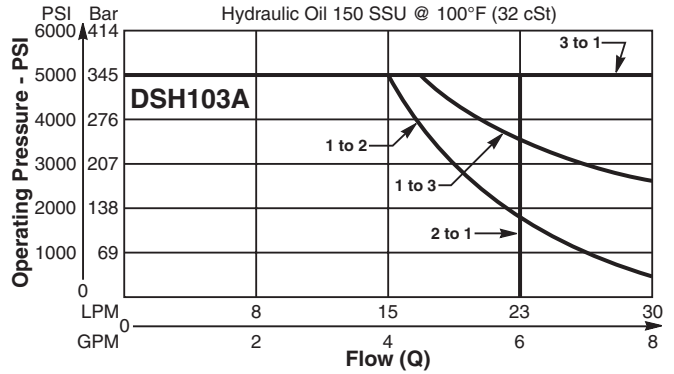
Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B10-3-*4P)
6P	3/8" NPTF	(B10-3-*6P)
8P	1/2" NPTF	(B10-3-*8P)
6T	SAE-6	(B10-3-*6T)
8T	SAE-8	(B10-3-*8T)
6B	3/8" BSPG	(B10-3-6B)†
8B	1/2" BSPG	(B10-3-*8B)

* Add "A" for aluminum, omit for steel. † Steel bodies only.

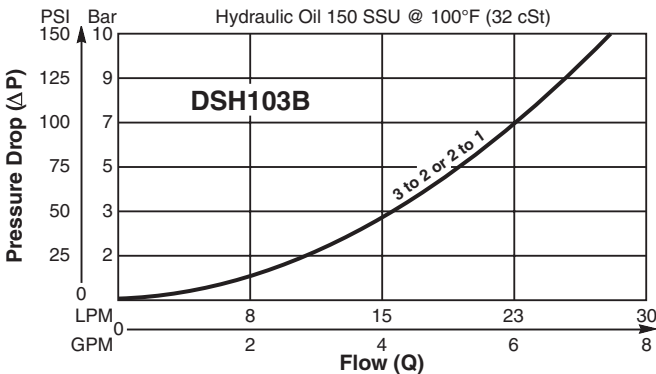
Pressure Drop vs. Flow (Through cartridge only)



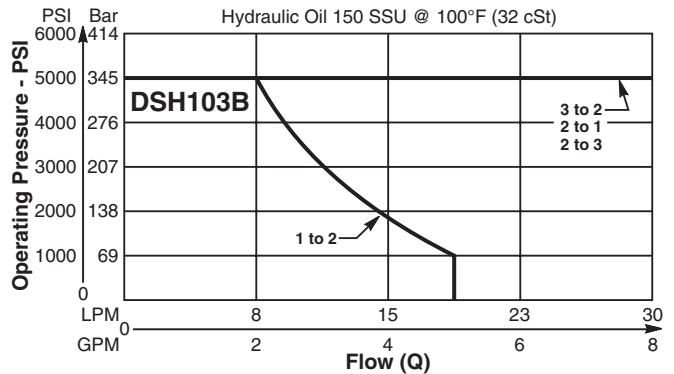
Shift Limit Characteristics (Min. Operating Voltage)



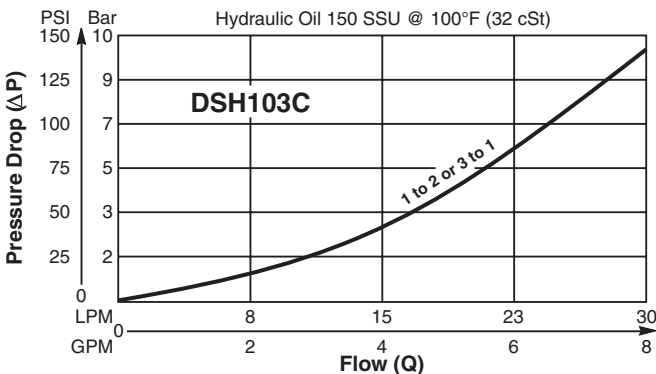
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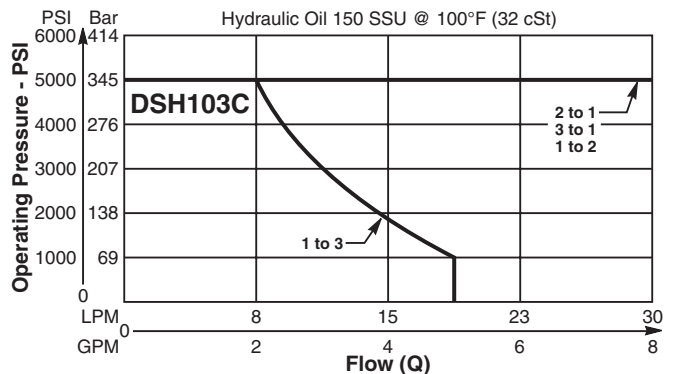
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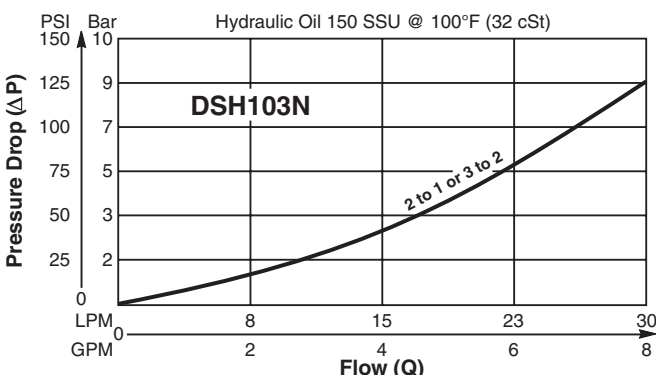
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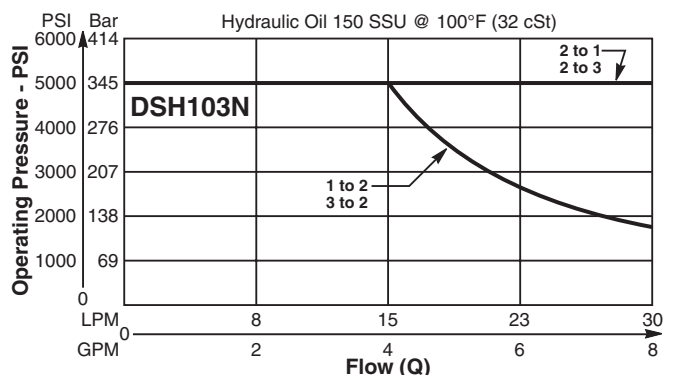
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Pressure Drop vs. Flow (Through cartridge only)



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