

**Technical Information**

- 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

**General Description**

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

**Features**

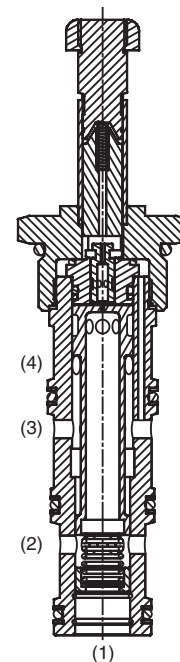
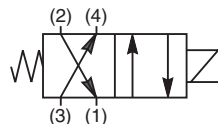
- High flow capacity with reduced space requirements
- Standard valve bodies and common cavities
- One-piece encapsulated coil with minimal amperage draw
- Seal variations and other options available
- No dynamic seals
- Variety of coil terminations
- Nylon inserted jam-nut provides secure holding in high vibration applications
- All external parts zinc plated

**Application Note**

This valve is a pilot operated spool type valve. It does not require a separate pilot supply, but does require that the work port pressure or the inlet pressure is 40-60 psi higher than port 1. In an open flowing condition, with zero load and low flow, it will require a 4-6 gpm flow to create internal pilot pressure to shift. If load pressure or system pressure is 40-60 psi higher than tank, the valve will shift. Ultimately, the valve shifts based upon pressure differential from port 3 to port 1 of 40-60 psi.

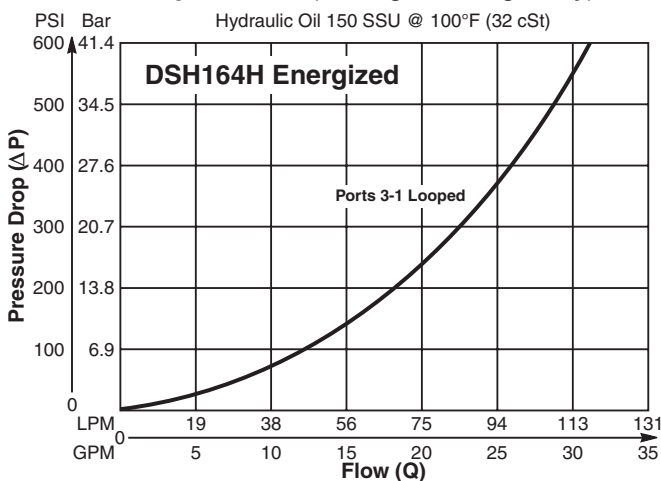
**Specifications**

<b>Rated Flow</b>	114 LPM (30 GPM)
<b>Maximum Inlet Pressure</b>	350 Bar (5000 PSI)
<b>Leakage at 150 SSU (32 cSt)</b>	350 cc/min (21 in <sup>3</sup> /min) De-Energ. 5.6 LPM (1.5 GPM) Energized Pilot Flow @ 207 Bar (3000 PSI)
<b>Minimum Operating Voltage</b>	85% of rated voltage at 20°C (72°F).
<b>Response Time</b>	Pull In - 600 ms Drop Out - 130 ms
<b>Cartridge Material</b>	All parts steel. All operating parts hardened steel.
<b>Operating Temp. Range/Seals</b>	-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)
<b>Fluid Compatibility/Viscosity</b>	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
<b>Filtration</b>	ISO Code 16/13, SAE Class 4 or better
<b>Approx. Weight</b>	.59 kg (1.3 lbs.)
<b>Cavity</b>	C16-4 (See BC Section for more details)
<b>Form Tool</b>	Rougher NFT16-4R Finisher NFT16-4F

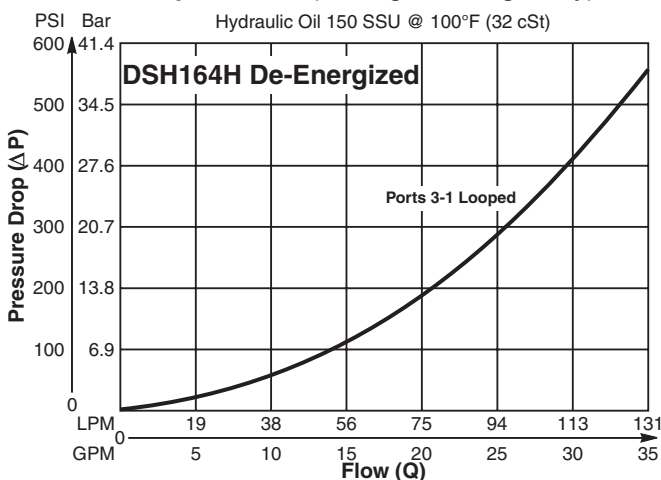


**Performance Curves**

**Pressure Drop vs. Flow (Through cartridge only)**

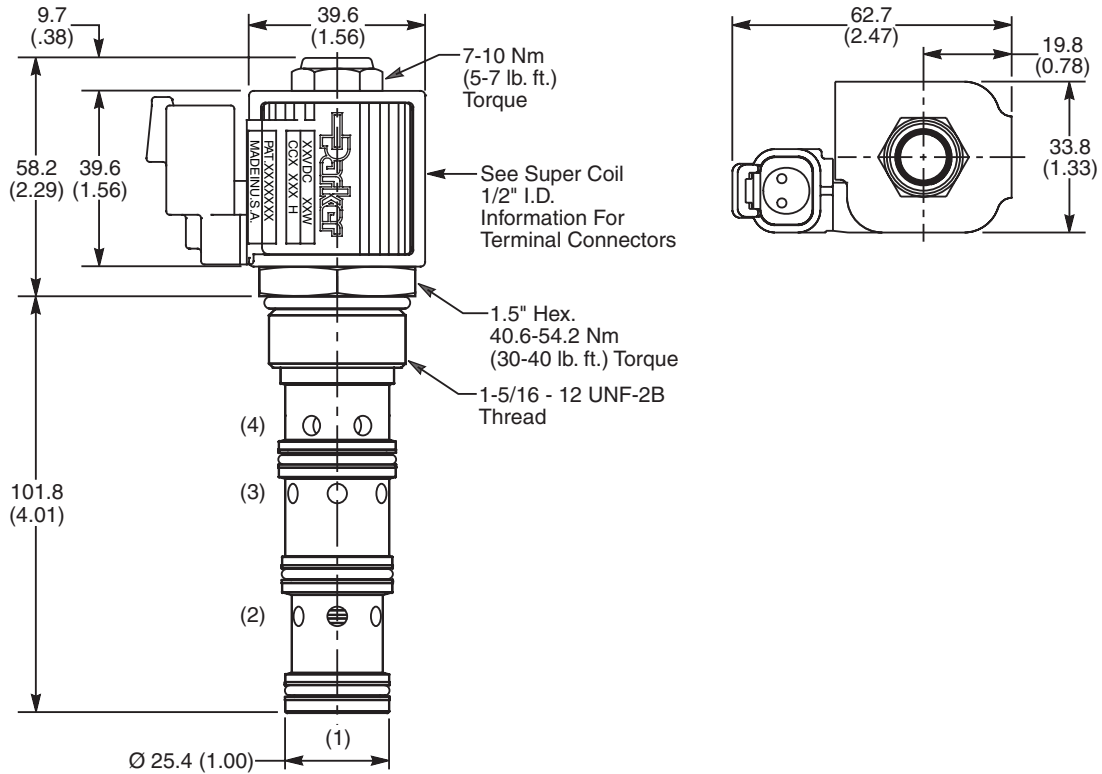


**Pressure Drop vs. Flow (Through cartridge only)**



Technical Information

Dimensions Millimeters (Inches)



Ordering Information

**DSH164**   
  **H**   
    
    
    
    
    
    

16 Size Solenoid Valve   
 Style   
 Seals   
 Coil Type   
 Coil Voltage   
 Coil Termination   
 Diode   
 Body Material   
 Port Size

Code	Style
H	

Code	Coil Type
Omit	Without Coil
SP*	Super Coil - 19 Watts

*\*Recommended*

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

Code	Diode
Omit	None
R	Diode

Code	Seals / Kit No.
N	Nitrile / (SK10-4N)
V	Fluorocarbon / (SK10-4V)

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

Code	Body Material
Omit	Steel
A	Aluminum

Code	Port Size	Body Part No.
Omit	Cartridge Only	
16T	SAE-16	(B16-4-*16T)

*\*Recommended*  
†DC Only

*\* Add "A" for aluminum, omit for steel.*

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