

General Description

4 Way, 3 Position, Proportional Directional Control Valve. Closed Center Spool. For additional information see Technical Tips on pages PV2-PV5.

Features

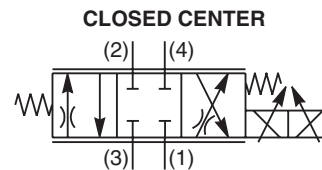
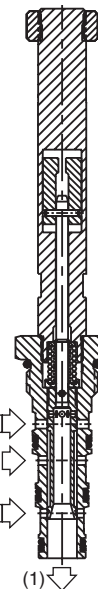
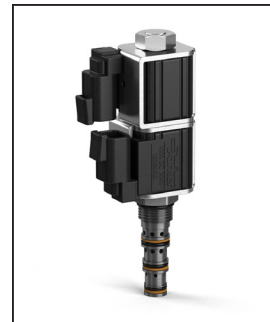
- One piece cartridge housing ensures internal concentricity
- Coil: Waterproof, hermetically sealed, requires no O'Rings; Symmetrical coil can be reversed without affecting performance.

Specifications

Operating Pressure	Ports 2, 3 and 4 350 Bar (5000 PSI) Port 1 210 Bar (3000 PSI)
Hysteresis @ 100 Hz PWM	<6%
Cracking Flow	25% to 30% of Input Signal
Variation of Flow	±15% @ 75% of Nominal Current and Constant ΔP Maintained by Pressure Compensator
Port to Port Leakage	10 cu. in/min @ 3000 PSI
Step Response Time at 75% of Amps	On 50 ms Off 40 ms
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-34°C to +121°C (Nitrile) (-30°F to +250°F) -26°C to +204°C (Fluorocarbon) (-15°F to +400°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO-4406 18/16/13, SAE Class 4
Approx. Weight	0.15 kg (0.34 lbs.)
Cavity	C08-4 (See BC Section for more details)

Typical Performance

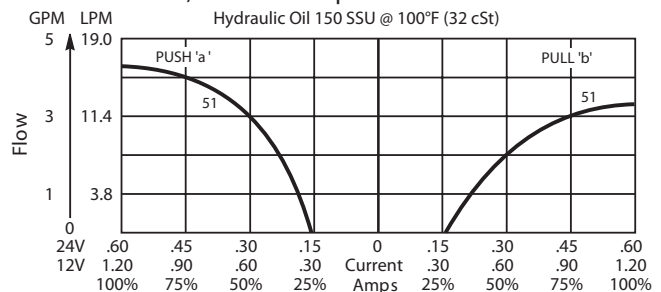
SPOOL TYPE AND FLOW	RATED FLOW AT 75% OF NOMINAL CURRENT LPM - (GPM)		SUPER COIL TYPE		Compensator ΔP Bar (PSI)
	'a' SOLENOID PUSH P to A, B to T	'b' SOLENOID PULL P to B, A to T	PUSH	PULL	
51 Standard	13.3 - (3.5)	17 - (4.5)	SP	SP	15 (220)
	11.4 - (3.0)	15.2 - (4.0)	SS	SS	15 (220)
52 High Flow	21 - (5.5)	17 - (4.5)	SP	SP	20 (290)
	17.4 - (4.5)	13 - (3.5)	SP	SP	15 (220)



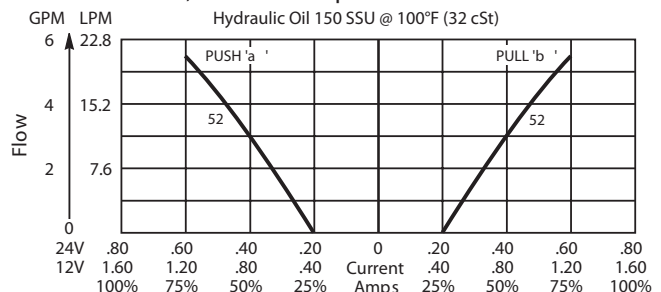
Performance Curves

▲ PWM Current Regulator Recommended

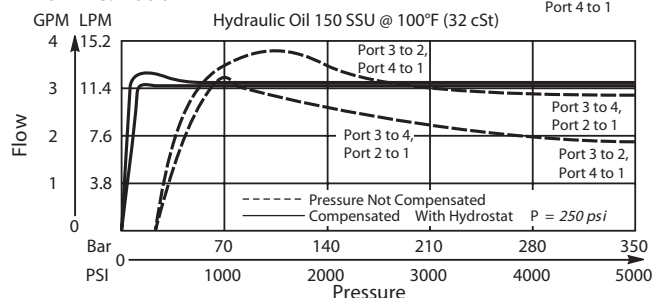
51L With 5 Bar, 75 PSI Compensator
 51 With 15 Bar, 220 PSI Compensator and SS Coil



52 With 20 Bar, 290 PSI Compensator and SP Coil

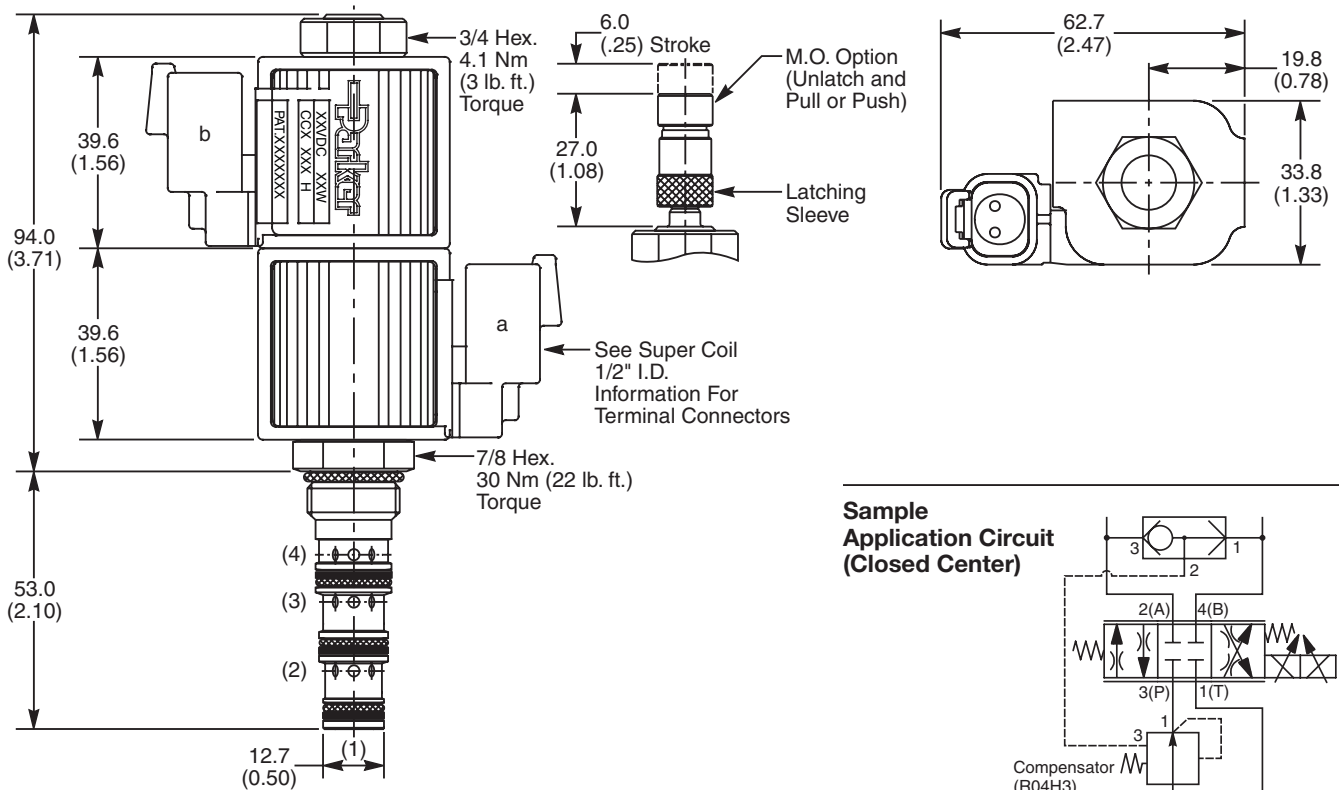


Flow vs. Load

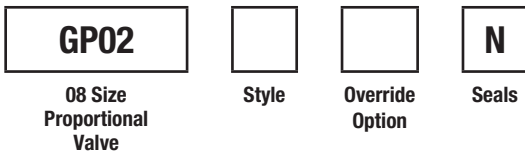


- CV
- Check Valves
- SH
- Shuttle Valves
- LM
- Load/Motor Controls
- FC
- Flow Controls
- PC
- Pressure Controls
- LE
- Logic Elements
- DC
- Directional Controls
- SV
- Solenoid Valves
- PV
- Proportional Valves
- CE
- Coils & Electronics
- BC
- Bodies & Cavities
- TD
- Technical Data

Dimensions Millimeters (Inches)



Ordering Information



Highlighted represents preferred options that offer the shortest lead times. Other options may be available, but at extended lead times.

Coil(s) sold separately. Please see section CE of this catalog, 1/2" Super-Coil (CC series), for ordering information.

Code	Style - Floating Center (Flow Pressure and Performance)
51	Standard
52	High Flow

Code	Seals
N	Nitrile

Code	Override Option
0	Not Required
1	Manual Override

Order Bodies Separately
 See section BC



Code	Porting / Body Material
6T	SAE-6 / Steel (5000 PSI)

Kit	Part Number
Nitrile Seal	SK30078N-1
Fluorocarbon Seal	SK30078V-1

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