

Parker Product Datasheet



High pressure solenoid valves are direct acting 3-way, 2-position spool-type to cover a wide range of flows up to 57 lpm (15 gpm) and pressures as high as 350 bar (5000 psi). These screw-in cartridge valves are fast to respond to coil voltage.

PART NUMBER: DSH083N
FLOW RATE: 3, 4 GAL/MIN, 11.3, 15 L/MIN
SEAL MATERIAL: D-Ring (Standard)
ACTUATION TYPE: Electrical
CONFIGURATION: Normally Open, Selector
FLOW DIRECTION: 2-3 De-energized, 2-1 Energized
MAXIMUM INLET PRESSURE RATING: 5000 PSI, 350 BAR

PRODUCT OVERVIEW

Parker's direct acting 3-way, 2-position spool-type solenoid valves feature a proven design that ensures reliable and predictable performance with low pressure drop and minimal hysteresis. These valves can operate with hydraulic system flows as high as 57 lpm (15 gpm) and pressures up to 350 bar (5000 psi) with normally-open, normally closed, or selector configurations available. Parker's 3-way, 2-position spool-type solenoid valves are ideal for switching or unloading applications that don't necessarily require low poppet style leakage, but instead easy solenoid driven directional controls. These valves can be used on a wide range of machinery within the mobile, industrial, or manufacturing markets.

Markets:

- Aerial
- Agriculture

- Construction
- Material Handling
- Miscellaneous Industrial
- Miscellaneous Manufacturing
- Miscellaneous Mobile

Features/Benefits:

- Replaceable one-piece coils with low amp draw
- High flow capacity
- Manual override options
- Standard bodies and cavities
- No dynamic seals
- Low hysteresis
- All external parts zinc plated

Applications:

- Switching applications
- Unloading applications
- Diverter applications

Additional Technical Insight:

Direct acting spool valves are fast to respond to coil voltage and will allow flow passage between 2 ports while blocking the remaining port. Some leakage will be present due to spool clearances.

TECH SPECIFICATIONS

MAXIMUM OPERATING TEMPERATURE	+93 °C
MAXIMUM OPERATING TEMPERATURE	+200 °F
DIVISION	Hydraulic Valve Systems Division
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MAXIMUM OPERATING PRESSURE	350 bar
MAXIMUM OPERATING PRESSURE	5000 psi
FLOW RATE	3, 4 gal/min

FLOW RATE	11.3, 15 L/min
MINIMUM OPERATING TEMPERATURE	-37 °C
MINIMUM OPERATING TEMPERATURE	-35 °F
FOR FLUID TYPE	Mineral-based or synthetic hydraulic fluids
BODY MATERIAL	N/A
SEAL MATERIAL	D-Ring (Standard)
WEIGHT	0.13 kg
WEIGHT	0.28 lb
OPERATING TEMPERATURE	-37 to +93 °C
OPERATING TEMPERATURE	-35 to +200 °F
MAXIMUM FLOW RATE	15 L/min
MAXIMUM FLOW RATE	4 gal/min
MOUNTING TYPE	Screw in cartridge valve
FUNCTION	3-way
ACTUATION TYPE	Electrical
OPERATION TYPE	Solenoid operated
INPUT VOLTAGE	85% of rated voltage at 72°F (20°C) min
RESPONSE TIME	50 ms
LEAK RATE	250 @ 5000 PSI (350 BAR) cm ³ /min
CONFIGURATION	Normally Open, Selector
MAXIMUM KINEMATIC VISCOSITY	45-2000 SSU (6 to 420 cSt)
FILTER EFFICIENCY RATING	ISO 4406 18/16/13, SAE Class 4
FLOW DIRECTION	2-3 De-energized, 2-1 Energized
MAXIMUM INLET PRESSURE RATING	5000 psi

MAXIMUM INLET PRESSURE RATING	350 bar
VALVE MATERIAL	All parts steel. All operating parts hardened steel
COIL TYPE	1/2' Super Coil
OVERRIDE FUNCTIONALITY	N/A
CAVITY SIZE	C08-3
INSTALLATION TORQUE	43 to 49 Nm
INSTALLATION TORQUE	32 to 36 lb-ft
COIL NUT TIGHTENING TORQUE	7 to 10 Nm
COIL NUT TIGHTENING TORQUE	5 to 7 lb-ft