

Parker Product Datasheet



Parker's pilot operated acting reducing & relieving valves are used in applications where specific functions require reduced and regulated pressure. Capable of flows up to 150 lpm (40 gpm) and pressures up to 380 bar (5500 psi).

PART NUMBER: PRH101S50
FLOW RATE: 15 GAL/MIN, 56.3 L/MIN
SEAL MATERIAL: D-Ring (Standard)
MOUNTING TYPE: Screw in cartridge valve
PRESSURE CONTROL RANGE: 1200-5000 PSI, 82.8-350 BAR
CRACKING PRESSURE: N/A
ADJUSTMENT MECHANISM: Screw

PRODUCT OVERVIEW

Parker's family of pilot operated acting reducing & relieving valves provide superior pressure control in applications where specific regulated and relief pressures are needed for precise operation on functions that require regulated pressures up to 380 bar (5500 psi) and flows up to 150 lpm (40 gpm). Parker's pilot operated acting reducing & relieving valves are designed with several pressure ranges in order to give a higher degree of control with a variety of adjustment style options available. The additional valve stability due to the pilot operation make these valves ideal for sensitive functions such as up or downforce, clamping, or braking applications on various types of machinery within the mobile and industrial markets.

Markets:

- Agriculture
- Construction Equipment

- Industrial
- Miscellaneous Manufacturing
- Miscellaneous Mobile

Features/Benefits:

- Multiple pressure ranges available for more accurate pressure control
- Compact size for reduced space requirements
- Adjustable and tamperproof versions available
- High pressure capacity
- All external parts zinc plated

Applications:

- Brakes
- Clamps
- Suspension systems
- Up/down-force systems

Additional Technical Insight:

Typical applications are in mobile & industrial equipment, where a branch of the system is intended to operate at a lower setting than high system pressure. Hydraulic functions such as brake circuits, clamping or clutch circuits, suspension systems, street sweepers, or seeding and planting rows in agricultural equipment are common applications for these products.

TECH SPECIFICATIONS

MAXIMUM OPERATING TEMPERATURE	+200 °F
MAXIMUM OPERATING TEMPERATURE	+93 °C
DIVISION	Hydraulic Valve Systems Division
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MAXIMUM OPERATING PRESSURE	350 bar
MAXIMUM OPERATING PRESSURE	5000 psi
FLOW RATE	15 gal/min
FLOW RATE	56.3 L/min

MINIMUM OPERATING TEMPERATURE	-35 °F
MINIMUM OPERATING TEMPERATURE	-37 °C
FOR FLUID TYPE	Mineral-based or synthetic hydraulic fluids
BODY MATERIAL	N/A
SEAL MATERIAL	D-Ring (Standard)
WEIGHT	0.23 kg
WEIGHT	0.5 lb
OPERATING TEMPERATURE	-37 to +93 °C
OPERATING TEMPERATURE	-35 to +200 °F
MAXIMUM FLOW RATE	56.3 L/min
MAXIMUM FLOW RATE	15 gal/min
MOUNTING TYPE	Screw in cartridge valve
FUNCTION	Pilot Operated
ACTUATION TYPE	Pressure Sensing
OPERATION TYPE	Automatic
LEAK RATE	N/A cc/min
CONFIGURATION	Pressure Reducing/Relieving
PRESSURE CONTROL RANGE	1200 to 5000 psi
PRESSURE CONTROL RANGE	82.8-350 bar
MAXIMUM KINEMATIC VISCOSITY	45-2000 SSU (6 to 420 cSt)
FILTER EFFICIENCY RATING	ISO 4406 18/16/13, SAE Class 4
CRACKING PRESSURE	N/A psi
MAXIMUM INLET PRESSURE RATING	5500 psi
MAXIMUM INLET PRESSURE RATING	380 bar

MAXIMUM PRESSURE SETTING	5000 psi
MAXIMUM PRESSURE SETTING	350 bar
ADJUSTMENT MECHANISM	Screw
PORT THREAD SIZE	N/A
VALVE MATERIAL	All parts steel. All operating parts hardened steel
PRESSURE CONTROL SENSITIVITY	1910 per turn psi
PRESSURE CONTROL SENSITIVITY	131.7 per turn bar
CAVITY SIZE	C10-3
INSTALLATION TORQUE	51 to 55 lb-ft
INSTALLATION TORQUE	69 to 75 Nm
MAXIMUM TANK PRESSURE	350 bar
MAXIMUM TANK PRESSURE	5000 psi
STANDARD SETTING PRESSURE	2500 psi
STANDARD SETTING PRESSURE	172 bar
MAXIMUM DRAIN FLOW RATE	0.94 L/min
MAXIMUM DRAIN FLOW RATE	0.25 gal/min