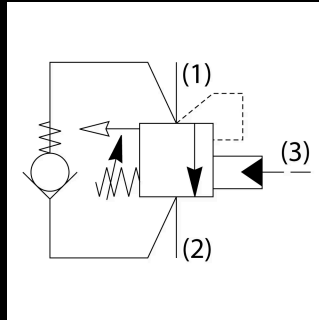


Parker Product Datasheet



Parker's vented load control valves are designed to operate independent of downstream pressure to prevent runaway loads under all dynamic conditions, handling pressures up to 350 bar (5000 psi) and flows up to 113 lpm (30 gpm).

PART NUMBER: E6B060ZN409
SEAL MATERIAL: Nitrile
MAXIMUM FLOW RATE: 48 GAL/MIN, 180 L/MIN
PORT SIZE: N/A
MOUNTING TYPE: Threaded Cartridge Valve
PRESSURE CONTROL RANGE: 725-5000 PSI, 50-350 BAR
ADJUSTMENT MECHANISM: Screw
PILOT PRESSURE RATIO: 3:1
HOLDING PRESSURE: 3120 PSI, 215 BAR

PRODUCT OVERVIEW

Parker's vented to atmosphere load holding/counterbalance valves are a combination of a relief, sequence, and flow control valve that can handle pressures up to 350 bar (5000 psi) and flows up to 113 lpm (30 gpm). These robust valves allow the operator to maintain control of the load by preventing it from overrunning the pump while also protecting against thermal expansion. The wide selection of pilot ratios enables the valve to open at pressures much lower than the spring pressure setting, allowing consistent control of the load throughout its lowering cycle. Because these valves spring chamber are vented to atmosphere, the valve will not be affected by changes in return pressure. Parker's vented load holding valves are ideal in closed center circuits where there is need to control pressure using an auxiliary relief valve.

Markets:

- Aerial
- Construction Equipment
- Material Handling Equipment
- Miscellaneous Industrial
- Miscellaneous Mobile

Features/Benefits:

- Vented to atmosphere, no additional drain line required
- Hardened, precision ground parts for durability
- Poppet style construction with minimal leakage
- Tamperproof versions available
- Single cartridge valve with integral reverse flow check valve
- Available pilot ratios from 8:1 to 3:1
- All external parts zinc plated

Applications:

- Load holding
- Position holding

Additional Technical Insight:

The load control valves are load assisted i.e the pilot pressure acts on the difference between the setting and the load at the pilot ratio.

The valve should always be set at a minimum of 30% higher than the maximum load induced pressure to ensure the valve closes correctly.

Sizing a counterbalance valve needs care in that the flow required is usually higher than system pump flow, as in the case with a cylinder application (retract flow could be twice the system flow) though oversizing the valve could cause instability.

Because of dynamic load variations in many applications, it may be necessary to use a lower pilot ratio or fit an orifice in the pilot line in order to gain stability.

TECH SPECIFICATIONS

MAXIMUM OPERATING TEMPERATURE

+121 °C

MAXIMUM OPERATING TEMPERATURE

+250 °F

DIVISION

Hydraulic Valve Systems Division

DIVISION	Hydraulic Valve Systems Division Europe
MAXIMUM OPERATING PRESSURE	5000 psi
MAXIMUM OPERATING PRESSURE	350 bar
FLOW RATE	48 gal/min
FLOW RATE	48 gal/min
FLOW RATE	180 L/min
FLOW RATE	180 L/min
MINIMUM OPERATING TEMPERATURE	-30 °F
MINIMUM OPERATING TEMPERATURE	-34 °C
FOR FLUID TYPE	Mineral-based or synthetic hydraulic fluids
BODY MATERIAL	N/A
BODY MATERIAL	N/A
SEAL MATERIAL	Nitrile
SEAL MATERIAL	Nitrile
WEIGHT	1.17 lb
WEIGHT	1.17 lb
WEIGHT	0.53 kg
WEIGHT	0.53 kg
OPERATING TEMPERATURE	-30° to +250° °F
OPERATING TEMPERATURE	-30 to +250 °F
OPERATING TEMPERATURE	-34 to +121 °C
OPERATING TEMPERATURE	-34° to +121° °C
MAXIMUM FLOW RATE	48 gal/min
MAXIMUM FLOW RATE	180 L/min
PORT SIZE	N/A
MOUNTING TYPE	Threaded Cartridge Valve

MOUNTING TYPE	Threaded Cartridge Valve
FUNCTION	Counterbalance Valve
ACTUATION TYPE	Pilot Operated, Vented
LEAK RATE	6 @ 1450 PSI (100 BAR) drops/min
LEAK RATE	6 @ 1450 PSI (100 BAR) drops/min
PRESSURE CONTROL RANGE	50-350 bar
PRESSURE CONTROL RANGE	725-5000 psi
PRESSURE CONTROL RANGE	50 to 350 bar
PRESSURE CONTROL RANGE	725 to 5000 psi
MAXIMUM KINEMATIC VISCOSITY	Mineral-based or synthetic with lubricating properties at viscosities of 45-2000 SSU (6 to 420 cSt) cSt
MAXIMUM KINEMATIC VISCOSITY	45-2000 SSU (6 to 420 cSt)
FILTER EFFICIENCY RATING	ISO 4406:1999 Code 18/16/13
FILTER EFFICIENCY RATING	ISO 4406 18/16/13, SAE Class 4
FLOW DIRECTION	Cylinder port 1, Valve port 2, Pilot port 3
MAXIMUM INLET PRESSURE RATING	350 bar
MAXIMUM INLET PRESSURE RATING	5000 psi
MAXIMUM INLET PRESSURE RATING	5000 psi
MAXIMUM INLET PRESSURE RATING	350 bar
ADJUSTMENT MECHANISM	Screw Adjustment
ADJUSTMENT MECHANISM	Screw
PORT THREAD SIZE	N/A
VALVE MATERIAL	All parts steel. All operating parts hardened steel
VALVE MATERIAL	All parts steel. All operating parts hardened steel
PILOT PRESSURE RATIO	3:01

PILOT PRESSURE RATIO	3:1
PRESSURE CONTROL SENSITIVITY	50 per turn bar
PRESSURE CONTROL SENSITIVITY	725 per turn psi
PRESSURE CONTROL SENSITIVITY	725 per turn psi
PRESSURE CONTROL SENSITIVITY	50 per turn bar
CAVITY SIZE	3C
CAVITY SIZE	3C
INSTALLATION TORQUE	63 lb-ft
INSTALLATION TORQUE	85 Nm
INSTALLATION TORQUE	63 lb-ft
INSTALLATION TORQUE	85 Nm
PILOT LOCATION	External
PILOT LOCATION	External
HOLDING PRESSURE	215 bar
HOLDING PRESSURE	3120 psi
HOLDING PRESSURE	215 bar
HOLDING PRESSURE	3120 psi