

Parker Product Datasheet



Parker offers a wide range of pressure compensated flow controls for applications that demand constant flow with varying loads and pressures; handling pressures as high as 420 bar (6000 psi) and flows to 56 lpm (15 gpm) in a single common cavity.

PART NUMBER: J04E2ZN
SEAL MATERIAL: Nitrile
MAXIMUM FLOW RATE: 10.6 GAL/MIN, 40 L/MIN
CONFIGURATION: Reverse Flow
ADJUSTMENT MECHANISM: Screw
FLOW RATE DISPLAY RANGE: 0.3-10.6 GAL/MIN, 1-40 L/MIN
STANDARD FLOW RATE SETTING: 5.3 GAL/MIN, 20 L/MIN

PRODUCT OVERVIEW

Parker's family of pressure compensated flow control valves feature a proven design that allows for a reliable and repeatable flow compensation curve throughout a wide pressure range. These valves can operate with hydraulic system flows as high as 56 lpm and pressures up to 420 bar with the option of an integrated adjustable or tuneable reverse free-flow check valve. Parker's pressure compensated flow control valves are ideal for cylinder or motor control and/or bleed-off applications within a broad range of markets, such as the agriculture, construction, material handling, industrial, and oil & gas markets.

Markets:

- Agriculture
- Construction Equipment
- Material Handling Equipment

- Miscellaneous Industrial
- Miscellaneous Mobile
- Oil & Gas

Features/Benefits:

- Minimal flow change with pressure variation
- Reverse flow function
- Hardened working parts for maximum durability
- Tamperproof options available
- All external parts zinc plated

Applications:

- Accumulator bleed-off
- Motor speed control
- Cylinder speed control
- Power units

Additional Technical Insight:

Parker offers a wide range of spool type restrictive pressure compensated flow controls to allow for speed control of motors, cylinders, and rotary actuators. Pressure compensation allows the flow devices to maintain a constant flow even with varying loads and inlet pressures. Tunable and fully adjustable versions are available with screw or knob adjusters that can be made tamper resistant with the addition of an optional cap. FR101 is an adjustable pressure compensated flow regulator which compensates for varying loads and pressures in one direction but in the other direction flow is metered across a fixed orifice but not compensated. In order to allow pressure compensated flow control in one direction and full free flow in the opposite direction, Parker offers an internal check valve in the adjustable FC101 cartridge. Because both versions are tunable and not fully adjustable, the valve will need to be specified with the appropriate flow range for the application. Changes in flow rates are achieved by mechanically varying the spring force acting on a spool that has a fixed orifice and metering compensator. J02E2, J04C2, and J04E2 are fully adjustable pressure compensated flow regulators. In the opposite flow direction, those valves only meter through a fixed orifice and do not compensate. In order to achieve fully adjustable pressure compensated flow control while allowing reverse full flow, the FA101 includes an internal check valve to bypass the compensator and metering orifice.

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	420 bar
MAXIMUM OPERATING PRESSURE	6000 psi
FLOW RATE	40 L/min
FLOW RATE	10.6 gal/min
MINIMUM OPERATING TEMPERATURE	-35 °C
MINIMUM OPERATING TEMPERATURE	-30 °F
FOR FLUID TYPE	Mineral-based or synthetic hydraulic fluids
CONNECTION TYPE	N/A
CONNECTION SIZE	N/A
BODY MATERIAL	N/A
SEAL MATERIAL	Nitrile
WEIGHT	0.2 kg
WEIGHT	0.44 lb
OPERATING TEMPERATURE	-30 to +250 °F
OPERATING TEMPERATURE	-35 to +121 °C
MAXIMUM FLOW RATE	10.6 gal/min
MAXIMUM FLOW RATE	40 L/min
FUNCTION	Flow Control
ACTUATION TYPE	Pressure Compensated
OPERATION TYPE	Manually operated
CONFIGURATION	Reverse Flow
MAXIMUM KINEMATIC VISCOSITY	45-2000 SSU (6 to 420 cSt)

FILTER EFFICIENCY RATING	ISO 4406 18/16/13, SAE Class 4
MAXIMUM INLET PRESSURE RATING	6000 psi
MAXIMUM INLET PRESSURE RATING	420 bar
ADJUSTMENT MECHANISM	Screw
VALVE MATERIAL	All parts steel. All operating parts hardened steel
FLOW RATE ACCURACY	N/A
FLOW RATE DISPLAY RANGE	0.3-10.6 gal/min This is the regulated flow range (min - max)
FLOW RATE DISPLAY RANGE	1 to 40 L/min This is the regulated flow range (min - max)
CAVITY SIZE	C10-2
INSTALLATION TORQUE	37 lb-ft
INSTALLATION TORQUE	50 Nm
STANDARD FLOW RATE SETTING	5.3 gal/min
STANDARD FLOW RATE SETTING	20 L/min