Series MV4 Multi-Pak Directional Control Valves

Effective: February 1, 2004
Supersedes: Cat. No. PMF 1003 dated 10/99

Specifications

**Description**

The Parker Series MV4 Multi-Pak, solenoid-operated valves offer a modular banking design concept which eliminates costly fittings and potential leak points that simplify both factory and field installations.

In addition to banking directional control valves, the main system relief valve may also be banked.

Attachment options including crossover reliefs, single and double, pilot-operated checks as well as anti-cavitation checks, can be stacked on the cylinder ports.

All Parker Multi-Pak valves utilize the proven wet plunger design for trouble-free performance even in continuous-duty applications.

**Features**

- Solenoid-operated valves incorporate manual overrides for virtually fail-safe performance
- Spool configurations allow for open-center series or closed-center parallel circuit stacks
- Solenoid coils are weather-resistant and rated for continuous duty at nominal voltage. They provide for low current consumption to minimize energy usage.
- Bankable inlet relief
- Inlet dump valve for use with parallel circuits
- Mid inlet/outlet section
- DC solenoid coils
- Various solenoid coil terminations
- Palm button manual overrides
- Proportional flow inlets (main & mid)

**Specifications**

**Flow:** 12 GPM (45 L/M)*. For higher flow applications, consult factory.

**Operating Pressure:** Parallel Bank: 3000 PSI (207 Bar). Series Bank: 2500 PSI (172 Bar).

**Operating Fluid:** Standard petroleum-based.

**Leakage C-T at 3000 PSI (207 Bar):** 14.9 in³/min. (244 cc/min.) at 100°F (38°C), 150 SSU (32 cSt).

**Filtration Requirement:** Recommend 25 micron (nominal). Class 18/15 according to ISO 4406, or cleaner.
**PERFORMANCE**

![Graphs showing pressure drop vs flow](image)

**NOTE:** SAE 10 oil at 100°F (38°C), Viscosity 150 SSU (32 cSt)

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**MATERIALS**

**Construction:** Hardened steel spool, precision fit into high-strength alloy cast iron body, Buna “N” seals. Solenoid coils are epoxy-encapsulated (weather-resistant), with Class H magnet wire and crosslinked polyethylene coated lead wires.

**Porting:** SAE-8 (3/4-16 thread)

**Banking Limitation:** Recommended to 5 sections only. Additional sections on factory-approved application.

**Tie Rod Torque Specification:**

115-125 lb. in. (13.0-14.1 N-m)

**Shipping Weight Per Section:** 12.8 lbs. (5.8 kg) approx.

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**ELECTRICAL DATA**

**Input Voltages:** 12 or 24 VDC or 115 VAC

**Current Draw:**

- 12 VDC—3.4 A at 64°F (20°C)
- 24 VDC—1.7 A at 64°F (20°C)
- 115 VAC—41 A at 64°F (20°C)

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**OPTIONS**

- Direct acting relief
- Differential area relief
- Inlet dump valve with differential area relief (for use in parallel circuits)
- Mid inlet/outlet section

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**MOTOR SPOOL CENTER**

MV4 17-A Shown
DIMENSIONS ARE IN INCHES (MILLIMETERS) AND ARE FOR REFERENCE ONLY.
OPTIONS

Inlet Dump Valve with Differential Area Relief
Anodized aluminum body
Adjustable in 3 pressure ranges: 300-1000/1001-
2000/2001-3000 psi
(21-69/69-138/138-207 BAR)

Direct Acting Relief Valve
(Fixed – Specify Setting)

Mid Outlet

Series Banking
(Tandem Center)

Note: When using inlet with relief valve in series
banking stacks, provide separate plumbing
on the outlet of relief valve section.

Parallel Banking
(Closed Center)
### ORDER CODE

**MV4**

**Table One**

Inlet with factory adjustable direct acting relief

**Table Two**

- **14**: 3 position 4 way C2 blocked C1 & P open to T (series)
- **15**: 3 position 4 way P to T (C1 & C2 open to Tank) (parallel)
- **17**: 2 position 4 way C1 & C2 blocked P open to T (series)
- **22**: 2 position 4 way C1 & C2 blocked P open to T (series)
- **23**: 2 position 4 way all ports blocked (parallel)
- **24**: 2 position 4 way all ports blocked (parallel)
- **30**: 2 position 4 way selector P to C1 - C2 to Tank (parallel)
- **32**: 3 position 3 way P to T (C1 blocked, C2 plugged) (series)
- **42**: 3 position 4 way A1 ports open to Tank (series)
- **43**: 3 position 4 way P to T (C1 & C2 blocked) (series)

**Table Three**

- **A**: Dual lock valve
- **B**: Lock valve with thermal relief
- **C**: Crossover relief fixed setting (Specify pressure settings)
- **D**: Crossover relief adjustable (0-3000 psi)
- **E**: Single lock valve

**Table Four**

**Mid Inlet/Outlet**

- **MIO**: Mid inlet/outlet for use when stacking more than 5 valve sections.
- **MR**: Mid inlet/outlet with adjustable direct acting relief
- **MGR**: Mid inlet/outlet dump valve with differential area relief

**Coil Options**

- **12**: COT-12-LA COT-12-TD 12 Volts DC
- **24**: COT-24-LA COT-24-TD 24 volts DC
- **115**: COT-115-LA 115 volts AC
- **220**: COT-220-LA 220 volts AC

### HOW TO ORDER

Parker Mini-Pak Valves are coded by the assembled stack configuration (Left to Right) in a sequential order from inlet to outlet. Please refer to the ordering tables, to select a circuit type, inlet options, spool configuration, spool options, circuit conversion options as they apply to your application.
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