Vickers™ KB proportional directional valves are a truly creative solution for many industrial applications. Simply locate your application on the matrix below and you will find the valve that best fits your needs. For over 80 years, Eaton’s KB valves have consistently and reliably provided industry with the high quality you expect from Eaton. As technology continues to improve, so does the engineering Eaton builds into its KB proportional directional valves. Vickers™ KB proportional directional valves are a good choice for Excel equipment manufacturers, design and manufacturing market leaders and their counterpart manufacturers. They also are manufactured, tested and sold throughout the world with the high quality you expect from Eaton.

Specifications, Features and Benefits of KB Prop Valves

<table>
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<tr>
<th>SPECIFICATIONS/FEATURES</th>
<th>KB900X</th>
<th>KBDG5V</th>
<th>KBFDG5V</th>
<th>KBDG4V</th>
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<td>Yes</td>
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<td>Command input option</td>
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Proportional Valve Application Matrix

The application matrix is the key to providing a "plug and play" valve sizing approach for many industrial applications. Simply locate your application on the matrix below and you will find the valve that best fits your needs. For over 80 years, Eaton’s KB valves have consistently and reliably provided industry with the high quality you expect from Eaton.

Flow Capability

Frequency Response

With Vickers KB proportional directional valves, you get a complete control package that they’ve never offered before. The latest generation of integrated valves that have direct electronic design capabilities. Vickers proportional valves are designed and built with less than 120° valve/valve and 100° valve/voltage conversion. The valve is designed for matched valve/voltage conversion.

New Design Means ‘Plug and Play’

For durability, you can’t beat Eaton S series valves. Each valve is factory proved and calibrated to ensure consistent performance. If they're required for separate control, special valves must be ordered to provide maximum accuracy and reliability. You'll also benefit from the ease of changing the control signals.

Integrated Amplifiers

Integrated on-board-electronics (OBE) reduces wiring and increases reliability. Easy setup and diagnosis through software.

Digital OBE (KBDG, KBFDG5V, KBCG, and KBXG) Setup and test done through software.

EMC CE marked Passport selling to EU

Specifications, Features and Benefits of KB Prop Valves

Proportional Valve Application Matrix

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Press Brake

Highly accurate positioning, repeatability of machining cycles, and precise synchronization control of cylinders during the closing movement of the bending tool, are pre-requisites of the hydraulic control system.

**Product & System Description**

By using two K(B)KFDG valves in closed loops, Vickers valves provide the solution to this demanding application.

**Benefits**

High bending speed, with precise control of bending depth, results in greater productivity. The design of the safety system blocks reduces production and maintenance costs.

Injection Molding Machine

It is critical that the plasticizing process be precisely controlled, which requires accurate, repeatable, and smooth transition from velocity into pressure regulation. It is also imperative to be able to monitor all process steps, in order to improve productivity and quality.

**Product & System Description**

Vickers Servo performance proportional valves K(B)KFDG and high performance K(B)FDFG family with tailored spool design, are the answers for meeting the extremely demanding injection and clamping control requirements, with the excellent dynamic capability of closed loop control on pressure, position, and velocity.

**Benefits**

Reduction cycle time and costs, with improved process control. One valve with a specially designed spool provides precise control of injection speed, holding pressure, and screw(s) return speed. Off-board electronics work with a specially designed spool to provide this control. The design of the safety system blocks reduces production and maintenance costs.

Sawmill

Productivity is king, which transforms to the requirements of overall machine reliability and durability, and precise control, and short cycle times. Harsh environment is another challenge for proportional valves mounted on the machines; robustness against shock, vibration, EMC, dirt, and moisture is a must.

**Product & System Description**

Vickers Servo performance proportional valves K(B)KFDG with fully encapsulated OBE (EN90 version) provide extremely reliable protection in condition of vibrations and shock. Valves with zero lap spool and grounded spool/sleeve pilot stage are characterized by their high dynamic performance, high hydraulic and high electronics interference immunity, with closed loop control and speed control.

**Benefits**

On-board-Electronics (OBE) valves feature "plug and play" to save wiring hassle and tuning time. Off & On, and "bound and control" valves provide "best in industry" performance against moisture. Each valve can be monitored directly onto the cylinder to sense accurate position.

Wind Power

Wind power is a very demanding application that requires proportional valves to be extremely reliable and durable due to the loads of continuous production process. At the heart of advanced wind turbines is a hydraulic control system that controls the pitch angle of the turbine blades, hence controlling the speed and power production. Challenges are closed loop control, pressure, and high ambient temperatures in extremely harsh environments.

**Product & System Description**

Coupled with LESA servo cylinders, Vickers high performance K(B)KFDG valves provides extremely reliable capability of closed loop control and failsafe feature prevents the equipment from being damaged. IP 65 & 67 protection ratings mean Vickers valves provide better resistance to moisture than any competitors.