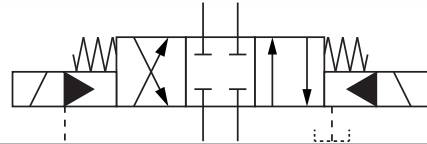
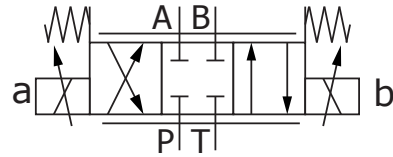


Common Directional Control Valves

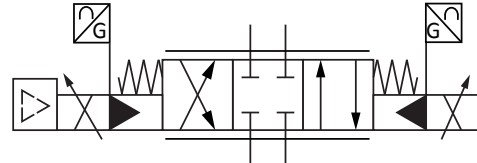
4/3 Closed Center, Solenoid-Actuated, Pilot-Operated with External Pilot Supply and External Drain



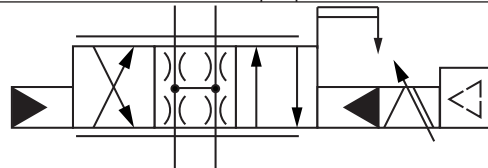
4/3 Closed Center with Dual Proportional Electrical Control Solenoids, and Spring Centering



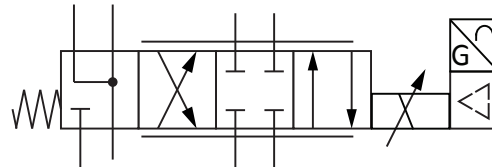
4/3 Closed Center with Servo Valve, Pilot-Operated with Closed-Loop Position Control of the Main and Pilot Stages with Integrated Electronics



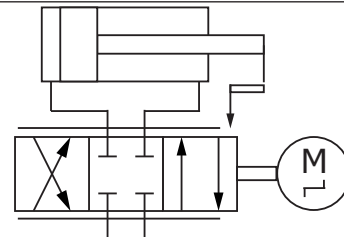
4/3 Servo Proportional Valve, Infinitely Positioning, Solenoid-Actuated, Pilot-Operated, Continuously Controlled in Both Directions with Mechanical Feedback of the Valve-Spool Position to the Pilot Stage with Integrated Electronics



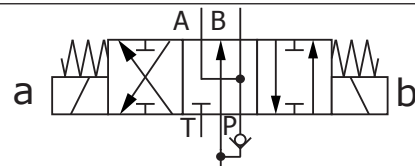
Servo Valve with Electrical Feedback and Integral Electronics with a Fourth Finite Position as a Fail Safe Position



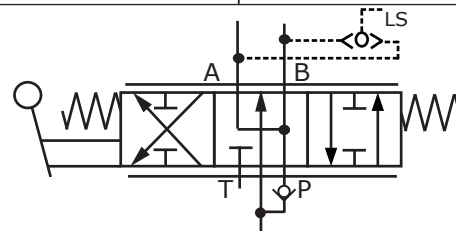
Electro-Hydraulic Linear Drive Assembly Consisting of a Double-Acting Cylinder with an Integral Servo-Valve. The cylinder is equipped with mechanical feedback to the servo valve. A servo valve is actuated by a stepper motor.



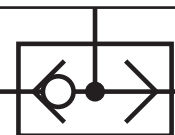
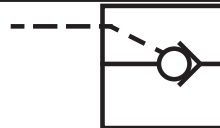
5/3 Through Center, Solenoid-Actuated, Spring Centered with Load Drop Check (Typical Mobile Valve)



5/3 Through Center, Lever-Operated, Infinitely Positioning, Spring Centered with Load Drop Check and Load Sense (Typical Mobile Valve)



Check Valves



Check Valve

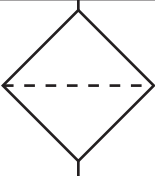

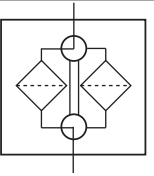
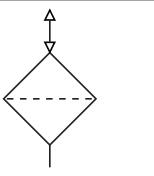
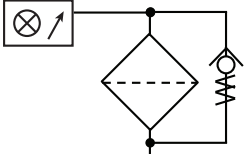
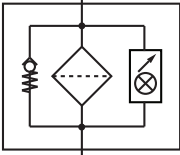
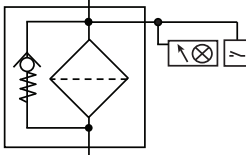
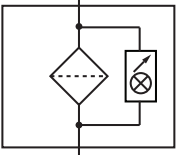
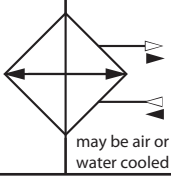
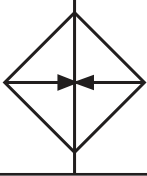
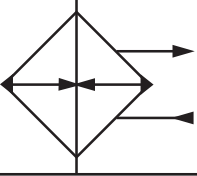
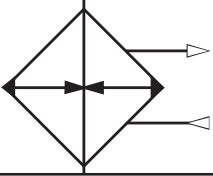
Check Valve with Spring

Pilot-to-Open Check Valve

Pilot-to-Close Check Valve

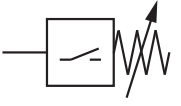
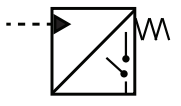

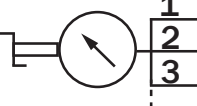

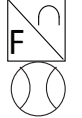

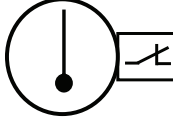
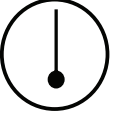

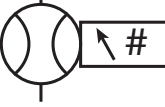
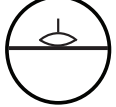
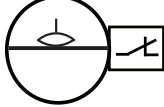
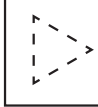
Shuttle Valve

Fluid Conditioning

| | | | |
|---|--|--|---|
|  |  |  |  |
| Filter/Strainer | Filter with Internal Magnet | Double Filter | Filter/Breather |
|  |  |  |  |
| Filter with Bypass Check Valve and Visual (Optical) Clogging Indicator | Filter with Bypass Check and Differential Pressure Visual (Optical) Clogging Indicator | Filter with Visual (Optical) Clogging Indicator and Electrical Contact | Filter No Bypass with Differential Pressure Visual (Optical) Clogging Indicator |
|  |  |  |  |
| Cooler | Heater | Heat Exchanger Water | Heat Exchanger Air |

Sensors

Sensors are typically shown as either a measuring instrument with a round frame, such as a pressure gauge, thermometer, and flow meter or a square frame with a diagonal line through it representing some type of transducer. The diagonal line represents the separation of the mechanical properties from the electrical characteristics of the unit, and the “U” simply denotes that it is an analogue signal coming from the device. This is sometimes shown inverted as in the pressure transducer symbol. It may be shown with a digital display instead of an analogue output. F stands for Flow on the flow transducer, and “G” stands for position in the linear transducer. It comes from the German word “geradlinig,” which translates in English to “straight” as in the cylinder rod moves in a straight line or linear fashion. Sometimes “S” (the symbol for distance) is used instead of “G”. In electronics, a triangle shape is used to represent an amplifier. A valve that has integral or on-board electronics would incorporate this into the valve operator symbol. When used in fluid power, it is dashed to avoid mistaking it for a pneumatic energy triangle.

| | | | | |
|---|---|---|---|---|
|  |  |  |  |  |
| Pressure Switch | Pressure Switch (Not Adjustable) | Pressure Gauge | Pressure Gauge w/ Select Function | Pressure Transducer |
|  |  |  |  |  |
| Flow Transducer | Linear Transducer | Temperature Switch | Thermometer | Flow Meter |
|  |  |  |  | |
| Flow Meter with Digital Display | Float Level (Sight Glass) | Float (Level) Switch | Servo/Integrated Electronics | |