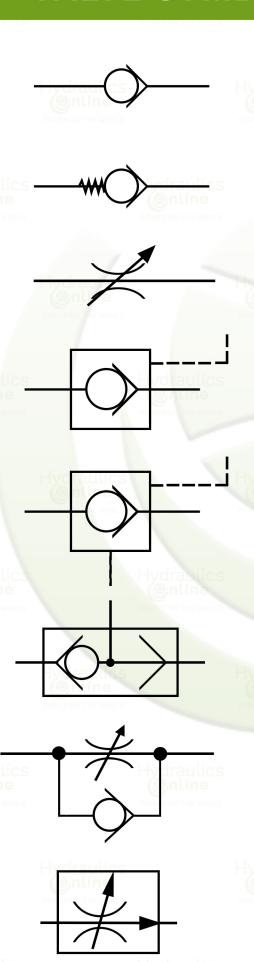
## **VALVE SYMBOLS**



Check Valve (non-return valve)

Spring rating important

Adjustable flow control valve

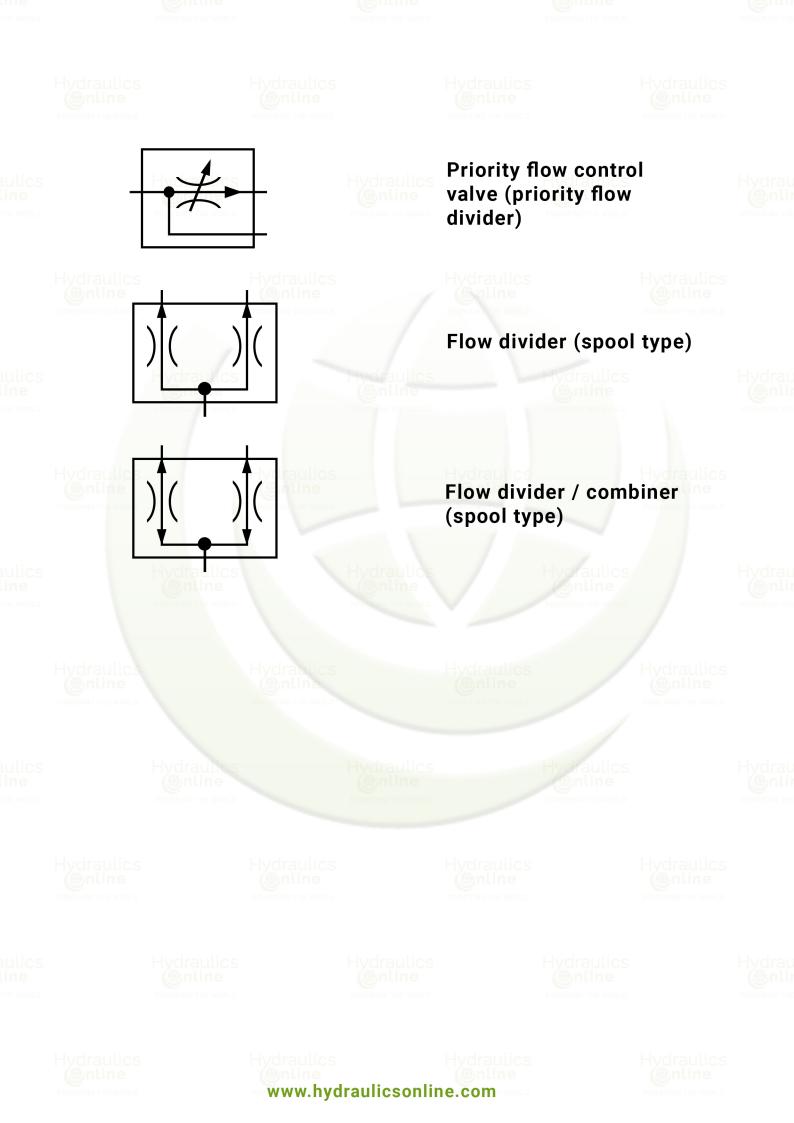
Pilot-to-open check valve (3 port)

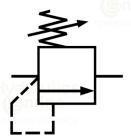
Pilot-to-open check valve (4 port or "vented")

**Shuttle Valve** 

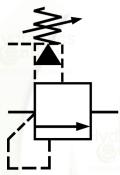
Throttle-check valve

Pressure compensated flow control valve

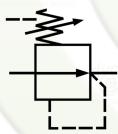




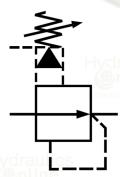
Pressure relief valve: direct operated internal drain...



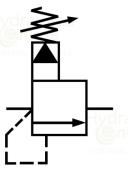
... now
showing
external drain



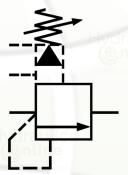
Pressure reducing valve: direct operated...



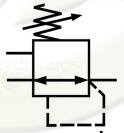
Pressure reducing valve: pilot operated...



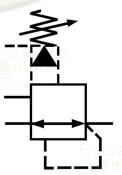
... now showing: pilot operated



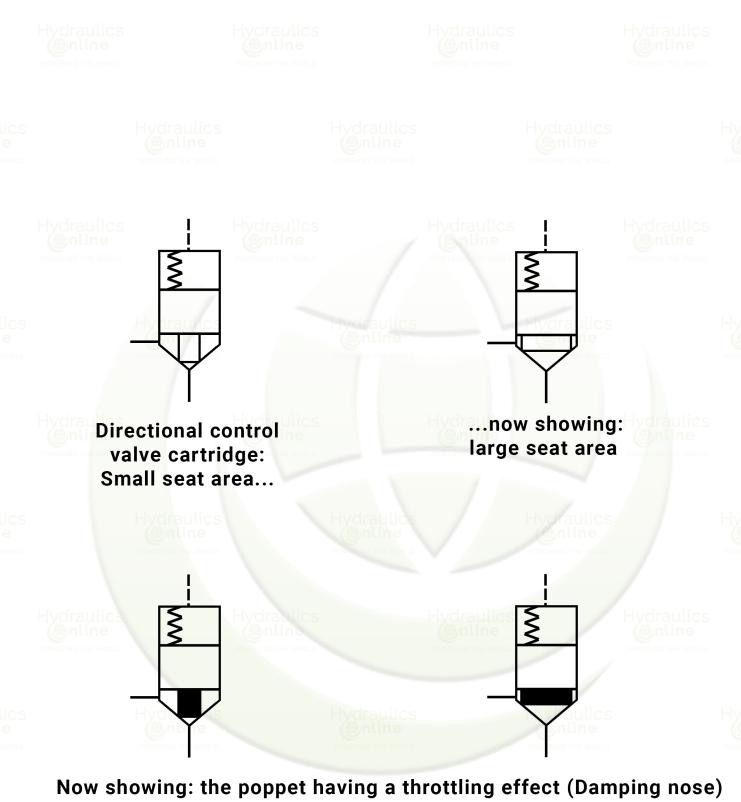
... now showing: external control (unload or "vent")



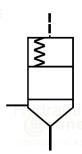
...now showing: 3-way function



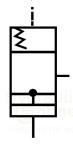
... now showing: 3-way function



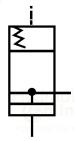
www.hydraulicsonline.com



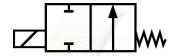
Pressure control valve cartridge: poppet type, normally closed...



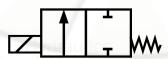
...now showing: spool type



...now showing: normally open



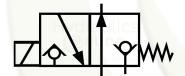
**Directional control** valve: direct operated, normally closed 2 port & 2 positions, solenoid operated, spring return, normally open



...now showing: and permissable bi-directional flow



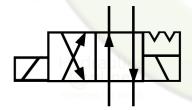
...now showing: 3/2 configuration



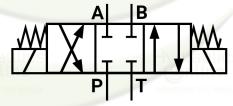
...now showing: leak free closures (poppet valve)



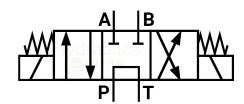
... now showing: 4/2 configuration



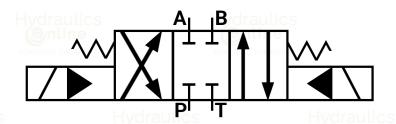
...now showing: detents ("stay-put" operation)



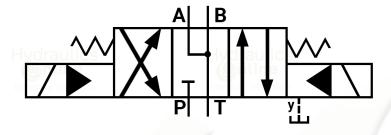
4/3 direct operated directional control valve: solenoid operated, spring centered, all ports closed in neutral...



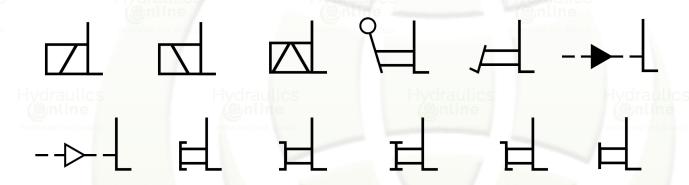
...now showing: P-T in neutral



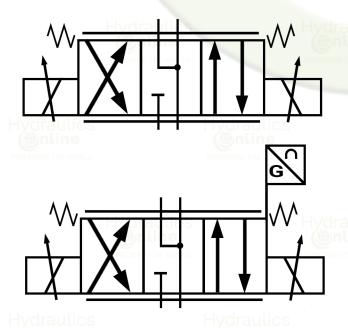
4/3 Pilot operated directional control valve: solenoid operated, spring centered internal pilot, internal drain, all ports closed in neutral...



... now showing: external pilot, external drain, A-B-T in neutral

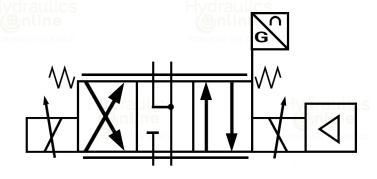


Alternative valve actuators: (1) pushing solenoid, (2) pulling solenoid, (3) dual solenoid, (4) lever, (5) pedal, (6) direct hydraulic operation, (7) direct pneumatic operation, (8) push, (9) pull, (10) push-pull, (11) turn, (12) manual override

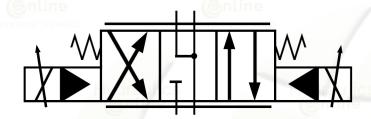


Proportional directional control valve: direct operated, force controlled (non-feedback)...

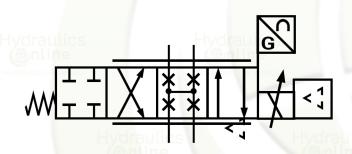
...now showing: stroke controlled (with feedback)



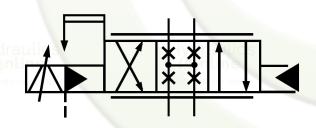
... now showing: integral amplifier (on board electronics)



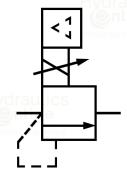
Proportional directional control valve: pilot operated, force controlled (non-feedback) internal pilot, internal drain



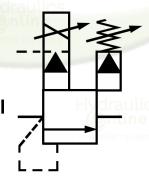
Servo valve: direct operated, electrical feedback, safety shut down position,integral amplifier



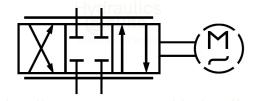
Servo valve: pilot operated (2 stage), mechanical feed-back, external pilot, internal drain



proportional pressure relief valve: direct operated, integral amplifier



proportional pressure relief valve: pilot operated, maximum pressure limitation, external drain



Proportional directional control valve: stepper motor actuated. All ports closed in neutral