

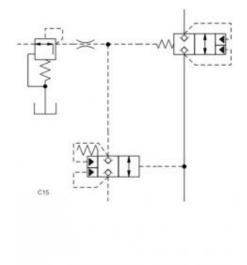
Pressure Kickdown Function – High Flow Rate

Machine: | Actuator: Pump | Function: Pressure

Prepared by :

Schematics

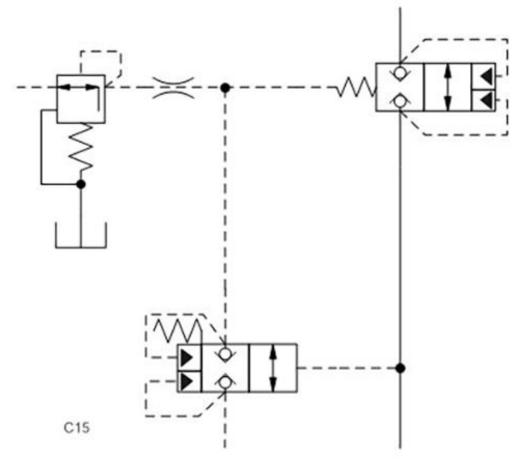
Summary



Related Products

Cartridges

LKDC - Pilot-to-open, spring-biased closed, unbalanced poppet logic element LODC - Pilot-to-close, spring-biased closed, unbalanced poppet logic element PRBB - Direct-acting, pressure reducing/relieving valve



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Note: Standard kickdown valves RQ*B have a long response time of about 20 ms (that can be beneficial) and also have leakage since they are spool-type valves. A circuit with a pressure control valve PR**, a normally open LO*, and a normally closed LK* allows a leak-free kickdown function with optional indication of the valve position.

Logic valve pilot-to-open: <u>LK*C</u>
Logic valve pilot-to-close: <u>LO*C</u>
Pressure control: <u>PR*B</u>

Benefits of this circuit arrangement:

- The pressure P1 on the supply of this circuit sees no leakage into the pilot port (3) of the LKDC and port 2 of the LO*C. The LKDC opens when P1 pressure is 0.55 times larger than the pressure at port 1 of valve LKDC. As soon as the LK opens, the pilot pressure collapses and the LO*C valve will open.
- The logic valve LO*C can be a high-capacity valve up to 320 gpm. It could also have a position switch to monitor the unloading function.

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