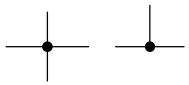
TRANSMISSION LINES

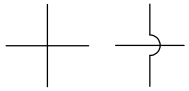
PRESSURE & RETURN LINES

PILOT LINES

DRAIN LINES



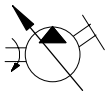
LINES CONNECTED



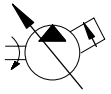
LINES CROSSING

PUMPS

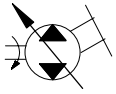
FIXED DISPLACEMENT



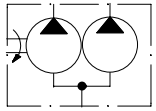
VARIABLE MANUAL CONTROL



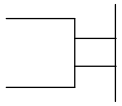
VARIABLE PRESSURE COMPENSATED



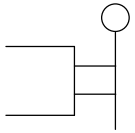
VARIABLE BI-DIRECTIONAL FLOW



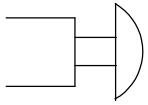
DOUBLE PUMP



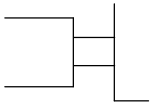
MANUAL



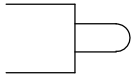
LEVER



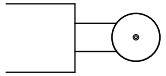
PUSH BUTTON



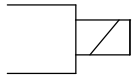
FOOT PEDAL



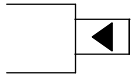
PLUNGER



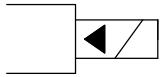
CAM FOLLOWER (ROLLER)



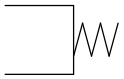
SOLENOID CONTROL



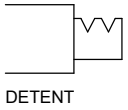
PILOT CONTROL



SOLENOID CONTROLLED PILOT OPERATED



SPRING



DETENT

PORT IDENTIFICATION

P = PUMP OR PRESSURE PORT

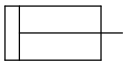
A = WORKING OR LOAD PORT

B = WORKING OR LOAD PORT

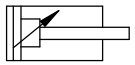
T = TANK PORT

X = EXTERNAL PILOT PORT

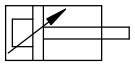
Y = EXTERNAL DRAIN PORT



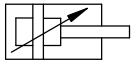
CYLINDER



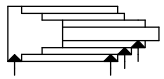
CYLINDER WITH ROD END CUSHION ADJUSTABLE



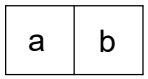
CYLINDER WITH CAP END CUSHION ADJUSTABLE



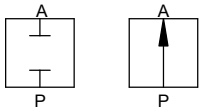
CYLINDER WITH CAP END & ROD END CUSHION, BOTH ADJUSTABLE



DOUBLE ACTING TELESCOPIC CYLINDER



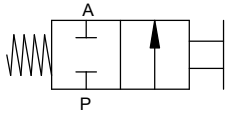
EACH SQUARE IS KNOWN AS AN ENVELOPE. EACH SQUARE DENOTES THE NUMBER OF SWITCHING POSITIONS, IN THE ABOVE CASE THERE ARE TWO POSITIONS.



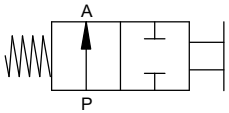
A = THE WORKING OR LOAD PORT.
P = PUMP OR PRESSURE PORT.

THE LEFT ENVELOPE INDICATES THAT THERE IS NO CONNECTION BETWEEN PORTS P & A - CLOSED.

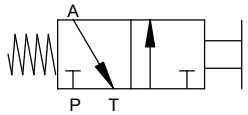
THE RIGHT ENVELOPE INDICATES A FLOW PATH BETWEEN PORTS P & A - OPEN.



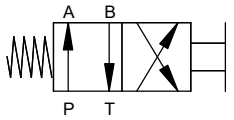
2/2 DIRECTIONAL CONTROL VALVE, (2 PORTS & 2 POSITIONS). NORMALLY CLOSED MANUALLY CONTROLLED.



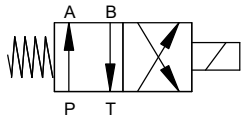
2/2 DIRECTIONAL CONTROL VALVE, (2 PORTS & 2 POSITIONS). NORMALLY OPEN MANUALLY CONTROLLED.



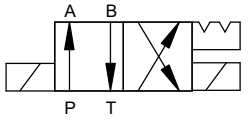
3/2 DIRECTIONAL CONTROL VALVE, (3 PORTS & 2 POSITIONS). PORT P IS CLOSED WITH PORT A TO TANK. MANUALLY CONTROLLED.



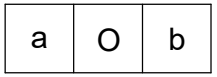
4/2 DIRECTIONAL CONTROL VALVE, (4 PORTS & 2 POSITIONS). PORT P TO PORT A & PORT B TO TANK. MANUALLY CONTROLLED.



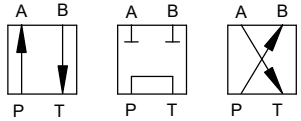
4/2 DIRECTIONAL CONTROL VALVE, (4 PORTS & 2 POSITIONS). PORT P TO PORT A & PORT B TO TANK. SOLENOID CONTROLLED.



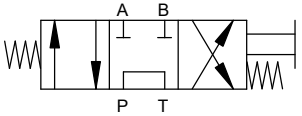
4/2 DIRECTIONAL CONTROL VALVE, (4 PORTS & 2 POSITIONS). PORT P TO PORT A & PORT B TO TANK. SOLENOID CONTROLLED WITH DETENT.



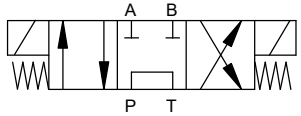
EACH SQUARE IS KNOWN AS AN ENVELOPE. EACH SQUARE DENOTES THE NUMBER OF SWITCHING POSITIONS, IN THE ABOVE CASE THERE ARE THREE POSITIONS.



A & B = THE LOAD OR WORKING PORTS
P = THE PUMP OR PRESSURE PORT
T = THE TANK PORT
THE CONNECTIONS FOR EACH SWITCHING POSITION IS GIVEN BY THE ARROWS IN EACH ENVELOPE.



4/3 DIRECTIONAL CONTROL VALVE. (4 PORTS & 3 POSITIONS) PORT P OPEN TO PORT T WITH PORTS A & B CLOSED, (TANDEM CENTRE VALVE). MANUALLY CONTROLLED. SPRING CENTERED.



4/3 DIRECTIONAL CONTROL VALVE. (4 PORTS & 3 POSITIONS) PORT P OPEN TO PORT T WITH PORTS A & B CLOSED, (TANDEM CENTRE VALVE). SOLENOID CONTROLLED. SPRING CENTERED.

SYMBOLS. 1