



Solenoid Operated Directional Valve

Model: WE5...6XJ

01



- ◆ Size 5
- ◆ Maximum working pressure 250 bar
- ◆ Maximum working flow 14 L/min

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Features

- Direct solenoid operated directional spool valve
- Wet pin DC or AC solenoids
- Plate connection

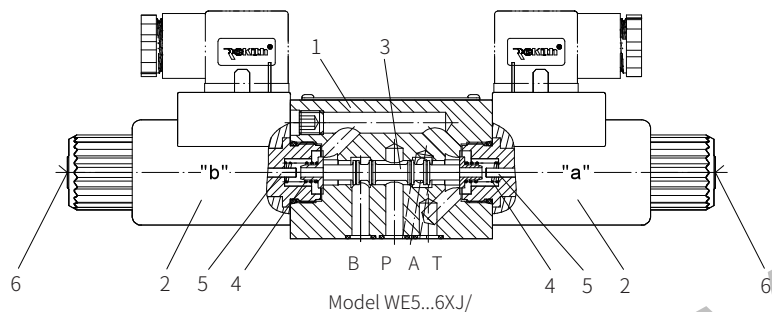
Function description, sectional drawing

The WE5 solenoid operated directional valve uses wet pin AC (or DC) solenoids to control different spool valve positions. This valve is mainly composed of valve body (1), one or two solenoids (2), spool (3) and one or two reset springs (4).

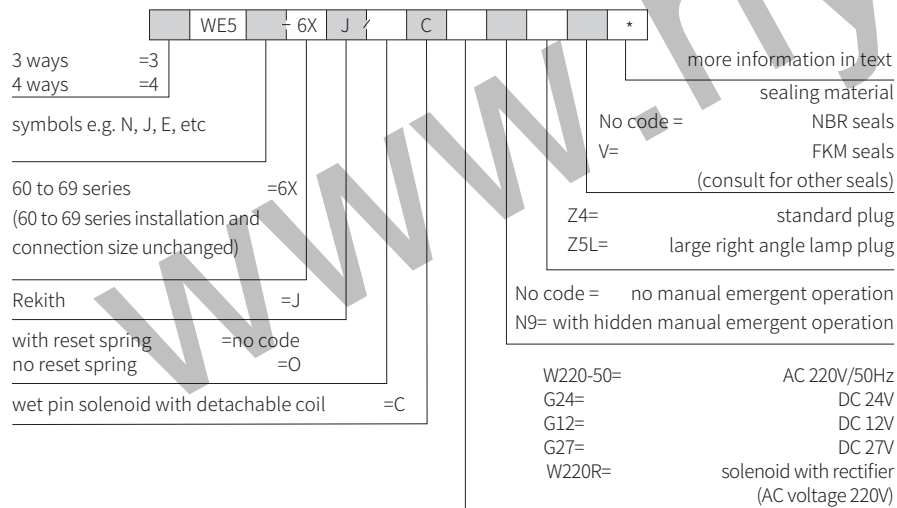
When the solenoid is de-energized, the spool valve is held in the middle or initial position by the spring (except for impulse valve). When the solenoid is energized, the force of the solenoid acts on the spool (3) through the push rod (5) to push it to the desired working position. Pushing the fault check button (6) can move the spool valve to check the working condition of the valve.

The WE5 valve adopts plate connection

Due to the use of wet pin solenoids, this valve has the advantages of long service life, good heat dissipation performance, and short action time. DC solenoids have many advantages such as high commutation frequency, soft operating characteristics, insensitivity to overvoltage and low voltage response, and highly reliable operation. The valve is widely used in various hydraulic systems and as pilot valves for pressure valves.

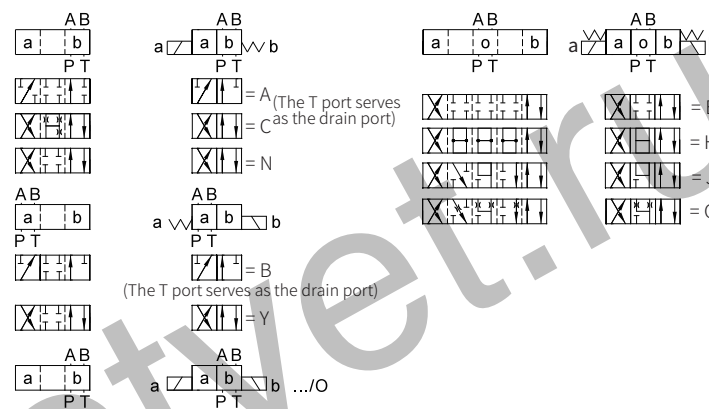


Models and specifications



Functional symbols

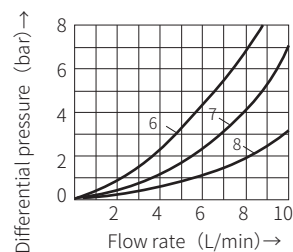
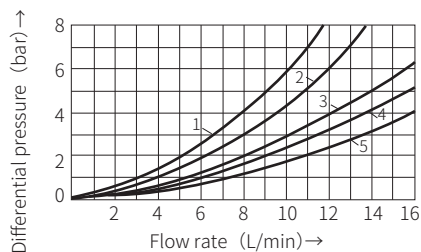
Transition function spool valve function Transition function spool valve function



Technical parameters

Hydraulic			
Medium	Mineral hydraulic oil or phosphate grease hydraulic oil		
Temperature range (°C)	-30 to +80		
Viscosity range (mm ² /s)	2.8 to 500		
Maximum allowable working pressure (bar)	A, B, P	to 250	
	T	to 60	
Overflow section O position (middle position)	Q type		
	6% of rated cross-sectional area		
Weight (kg)	Valve →	Subplate G115/01	← Subplate G96/01
	About 1.4	About 0.7	About 0.5
Electrical			
AC voltage (V)	110, 220 in 50Hz		
DC voltage (V)	12, 24, 27		
Voltage type	DC voltage		AC voltage
	Power consumption (W)		
	26		
Holding power	-		48VA
Starting power	-		130VA
Operating time	Consecutive		
	Connection time (ms)	40	25
Disconnect time (ms)	30	20	
Maximum allowable environment temperature (°C)	+50		
Maximum allowable coil temperature (°C)	+150		
Maximum allowable switching frequency (times/h)	15000		7200
	Protection device type DIN 40050		
	IP65		

Characteristic curve

(Measured when using HLP46, $v_{oil}=40\text{ }^{\circ}\text{C} \pm 5\text{ }^{\circ}\text{C}$)

- 1 Symbol B: P→B, P→A
 2 Symbol B: P→A, P→B
 3 All symbols except B: A→T
 4 All symbols except B: B→T

- 5 All symbols except B: P→A, P→B, A→T
 6 Symbol G: P→A, B→T
 7 Symbol G: P→T, P→B
 8 Symbol G: A→T

Characteristic limit

The switching characteristics of the valve are related to the adhesion effect of the filter. To achieve the recommended flow value, it is recommended to use a 20um filter in the system. Due to the hydraulic force acting inside the valve affects the flow capacity of the valve. Therefore, different spool valve symbols have different power limits.

In the case of only one channel, e.g. when the four-way valve with chamber A or B blocked is used as three-way valve, the power limit difference is significant.

Flowrate(L/min)	Working pressure (bar)		
Symbols	50	100	250
A, B, C, N, E, F, H, J, L, M, Q, R, V, W	14	14	12
G	10	10	9

Component size

Size unit: mm

Model 4WE5... 6XJ/

