

Isolating valve

Model: Z4WE6...3XJ

01



- ◆ Size 6
- ◆ Maximum working pressure 315 bar
- ◆ Maximum working flow 40 L/min

Contents

Function description, sectional drawing	02
Models and specifications	03
Functional symbols	03
Technical parameters	04
Characteristic curve	05
Characteristic limit	05
Component size	06-07

Features

- Directional spool valve operated by solenoid
- Control the opening and closing of the oil
- The manual emergency operation controls the movement of the control spool when solenoid de-energized

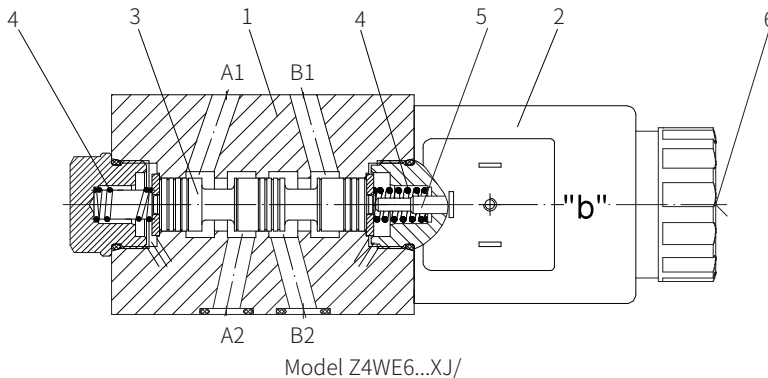
Function description, sectional drawing

The Z4WE6 isolating valve is solenoid operated directional spool valve. It controls the opening and closing of the oil.

The valve is composed of valve body (1), one or two solenoids (2), control spool (3) and 2 reset springs (4). In the de-energized condition, the control spool (3) is held in the neutral or initial position by reset spring (4), the control spool (3) is controlled via wet-pin solenoid (2). To ensure proper function, the pressure chamber of the solenoid must be filled with oil.

The force of the solenoid (2) via push rod (5) acts on control spool (3) and pushes it from the stationary position to the required position. Then port A1, A2, B1 and B2 can be either connected or disconnected. The port P and T always flow freely.

When the solenoid (2) is de-energised, the control spool (3) is returned to the neutral position via reset spring (4). The manual emergency operation controls the movement of the control spool when solenoid de-energized.

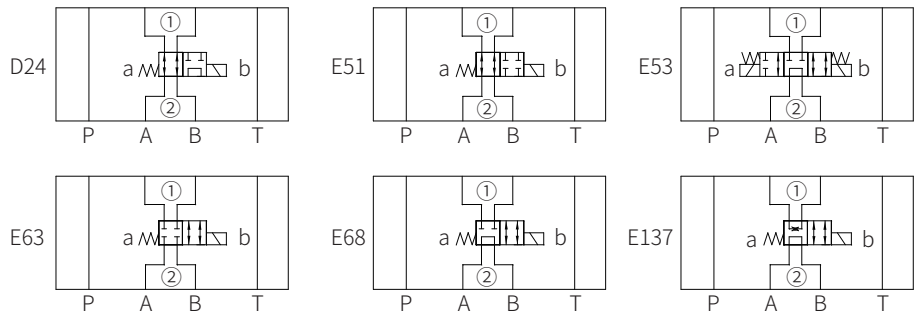


Models and specifications

	Z4WE	6		-3X	J	/	C					*
isolating valve												more information in text
size 6		=6										sealing material
symbols e.g.: D24, E63...												No code= NBR seals
30 to 39 series				=3X								V= FKM seals
(30 to 39 series installation and connection size unchanged)												(consult for other seals)
Rekith					=J							Z4= standard plug
wet-pin solenoid							=C					Z5L= large right angle lamp plug
Note: If AC voltage used, it is recommended to use the rectified AC voltage												No code=no manual emergency operation
												N9=with hidden manual emergency operation
												G24= 24V DC
												W220R= 220VAC with rectifier
												W110R= 110VAC with rectifier
												other voltages see technical parameters

Functional symbols

(①= Valve side, ②= Subplate side)



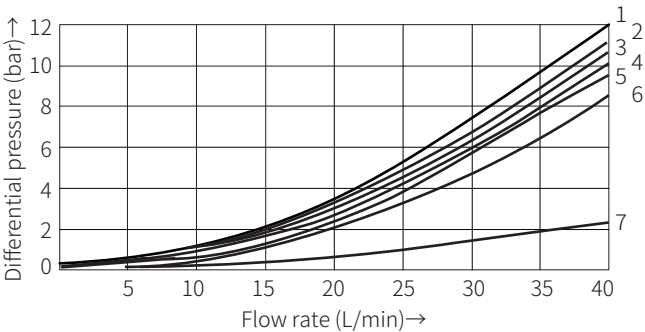
Technical parameters

Overview			
Installation position		Optional	
Environment temperature range °C		-30 to + 50 (NBR seal) -20 to + 50 (FKM seal)	
Weight	Valve with 1 solenoid kg	1.5	
	Valve with 2 solenoid kg	2.0	
Hydraulic			
Maximum working port A, B, P bar pressure		315	
port T bar		210(DC), 160(AC)	
Maximum flow L/min		40	
Working medium		Mineral oil - for NBR seals or FKM seals Phosphonolipid - for FKM seals	
Working medium temperature range °C		-30 to + 80 (NBR seal) -20 to + 80 (FKM seal)	
Viscosity range mm²/s		2.8 to 500	
Cleanliness of oil		The maximum allowable pollution level of oil is ISO4406 Class 20 / 18 / 15	
Electrical			
Voltage type		DC	AC 50/60Hz
Voltage available V		12,24,96,110,205,220	110,220,230
Allowable voltage tolerance %		+10 to -15	
Power consumption(DC) W		30	-
Holding power(AC) VA		-	50
Impact power(AC) VA		-	220
Power rate		continuous	
Switching time to ISO 6403 on ms		20 to 45	10 to 20
off ms		10 to 25	15 to 40
Switching frequency times/h		to 15000	to 7200
Protection grade to DIN 40050		IP65	

Note:

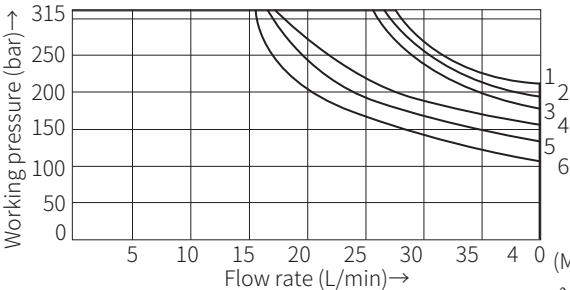
When electrical connection, the protective conductor (PE) must be connected properly as rules.

Characteristic curve



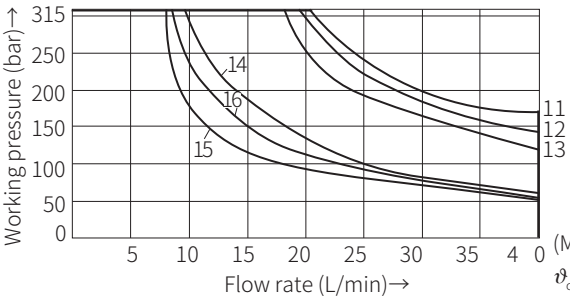
	A2 - A1	A1 - A2	B2 - B1	B1 - B2	A2 - B2	B2 - A2	T2 - T2	P2 - P1
D24	4	1	2	4	3	2	7	7
E51	3	1	1	3	-	-	7	7
E53	2	2	2	2	5	2	7	7
E63	2	5	5	3	-	-	7	7
E68	4	4	6	5	4	5	7	7
E137	1	4	3	2	5	6	7	7

Characteristic limit



- 1 E63 1 E51
- 2 E68 2 E137
- 3 E53 3 D24

(Measured when using HLP46,
 $\vartheta_{oil}=40^{\circ}\text{C} \pm 5^{\circ}\text{C}$ and 24VDC)

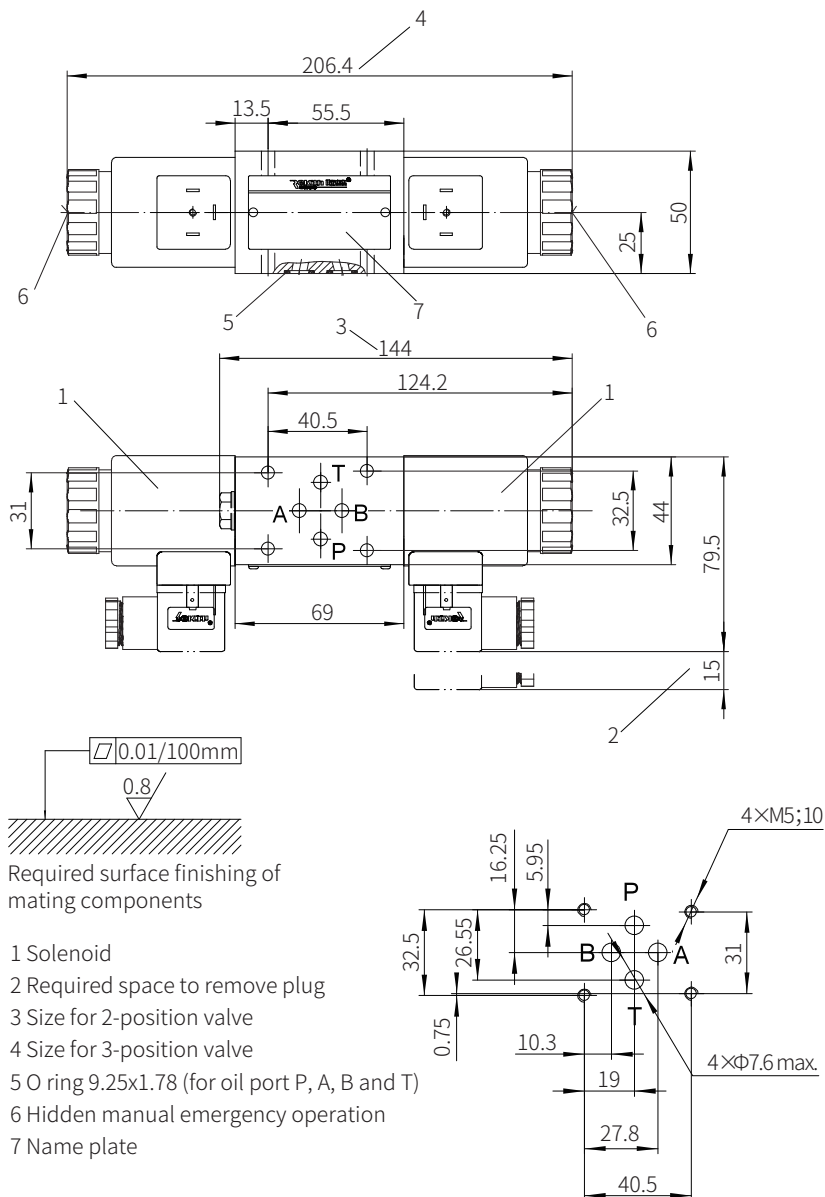


	W230-50Hz	W230-60Hz
E63	11	14
E68	12	16
E53	13	16
E137	15	15
E51	15	15
D24	15	15

(Measured when using HLP46,
 $\vartheta_{oil}=40^{\circ}\text{C} \pm 5^{\circ}\text{C}$ and 24VDC)

Component size
Size unit: mm

Valve with DC or AC rectified solenoid



It must be ordered separately
if connection subplate is needed.
Subplate model:

G341/01(G1/4"); G341/02(M14x1.5)

G342/01(G3/8"); G342/02(M18x1.5)

G502/01(G1/2"); G502/02(M22x1.5)

Valve fixing screw

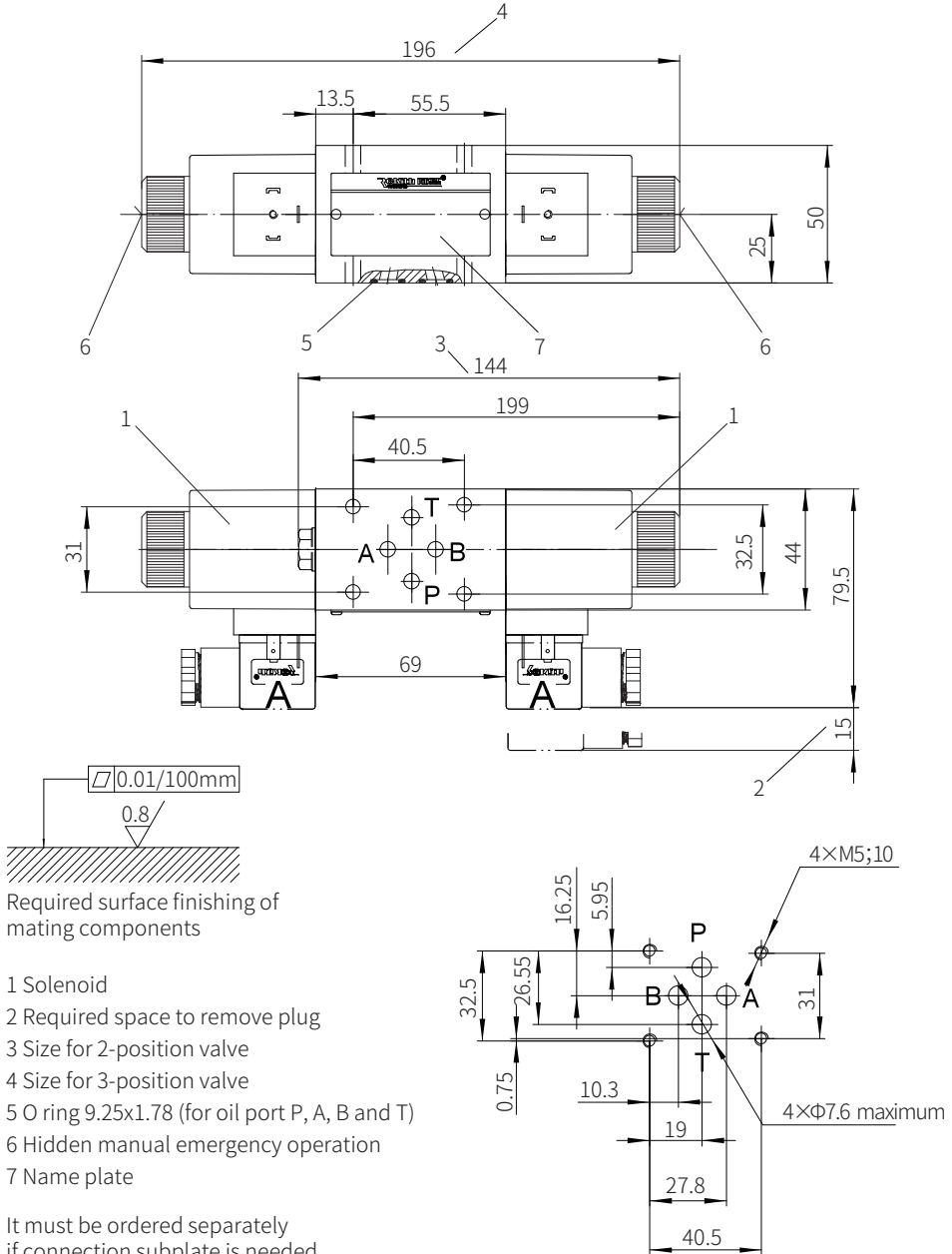
M5-10.9 grade GB/T70.1-2000

 Tightening torque $M_A=7.8\text{Nm}$

Component size

Size unit: mm

Valve with AC solenoid



Required surface finishing of mating components

- 1 Solenoid
- 2 Required space to remove plug
- 3 Size for 2-position valve
- 4 Size for 3-position valve
- 5 O ring 9.25x1.78 (for oil port P, A, B and T)
- 6 Hidden manual emergency operation
- 7 Name plate

It must be ordered separately
if connection subplate is needed.
Subplate model:

G341/01(G1/4"); G341/02(M14x1.5)
G342/01(G3/8"); G342/02(M18x1.5)
G502/01(G1/2"); G502/02(M22x1.5)

Valve fixing screw
M5-10.9 grade GB/T70.1-2000
Tightening torque $M_A=7.8\text{Nm}$