



RSE 4-06

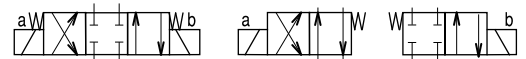
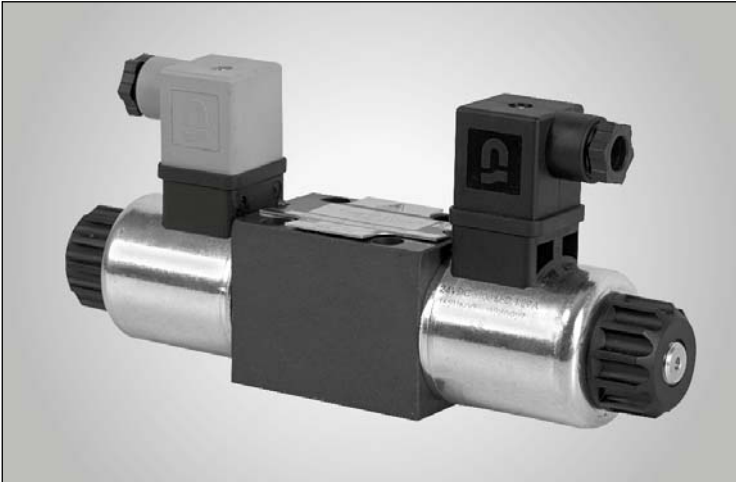
DIRECTIONAL CONTROL VALVES

| KE 2020 | 07/13 |

D_n 06 | p_{max} 35 MPa | Q_{max} 80 dm³/min

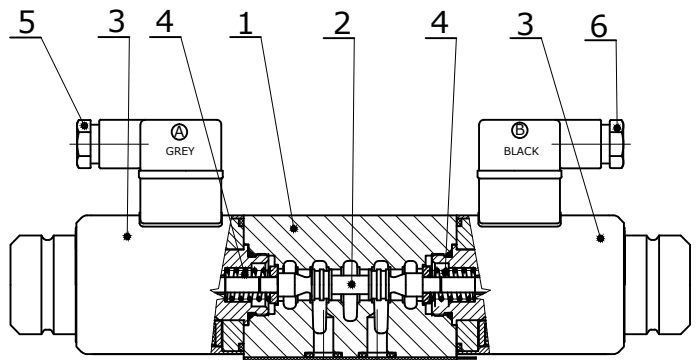
Solenoid operated directional control valves of type RSE4-06 are used to control start, stop and direction of fluid in hydraulic systems.

Dn 06, NG 06 | Solenoid operated | Manual override | Installation dimensions according to: CETOP RP 121-H (CETOP 3), ISO 4401, DIN 24340

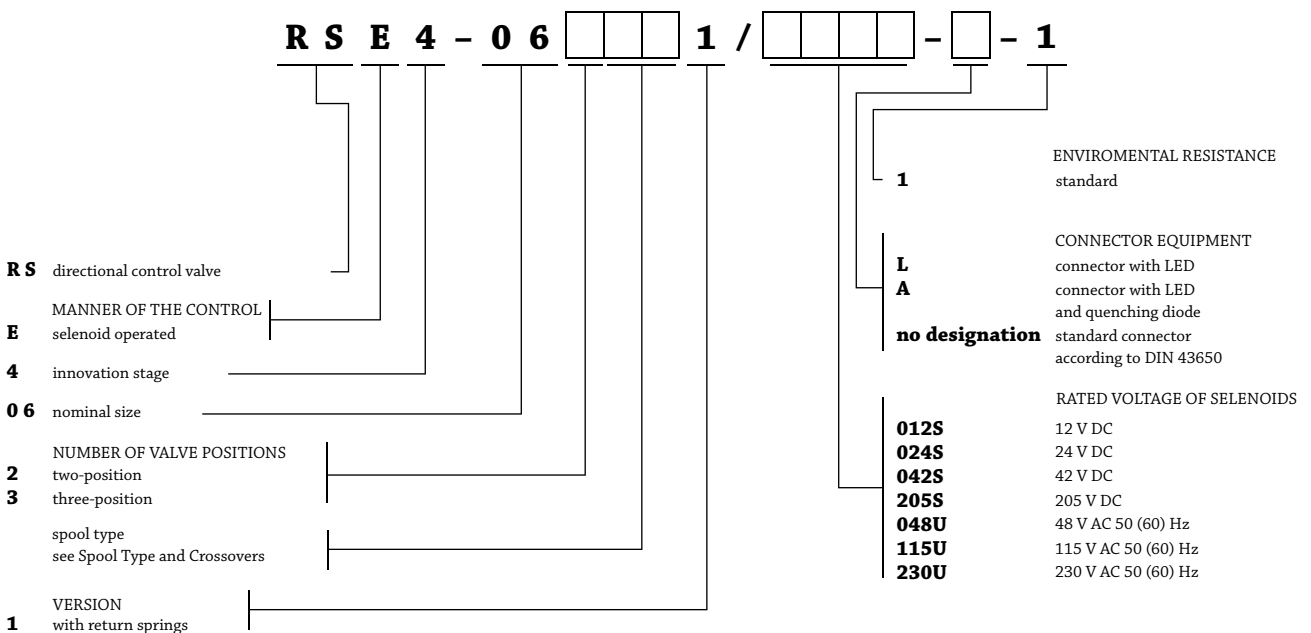


FUNCTIONAL DESCRIPTION

Solenoid operated directional control valves RSE4-06 consist of cast iron valve housing **1** with control spool **2**, centering springs **4** and operating solenoids **3**. They are being manufactured as two-position direction control valves with one solenoid and one spring or three-position directional control valves with two solenoid and two springs. DC solenoids are supplied through connectors A,B (**5,6**). For AC supply the solenoids are equipped with rectifiers integrated to the DIN connector socket as a part of the solenoids. The solenoid can be turned around its axis to any desired position. Solenoids are designed for manual override allowing the control spool to be repositioned in case of power supply failure or solenoids malfunction. The valve housing **1** is phosphate coated and the solenoids **3** is zinc coated.



ORDERING CODE



INSTALLATION, SERVICE AND MAINTENANCE

Directional control valves RSE4-06 are designed for panel installation. They are being mounted by four screws M5x50 with torque 8Nm and can be installed in any working position. The reliability of the valves is conditional upon use of prescribed working fluid, especially its parameters such as cleanness and temperature.

DELIVERY

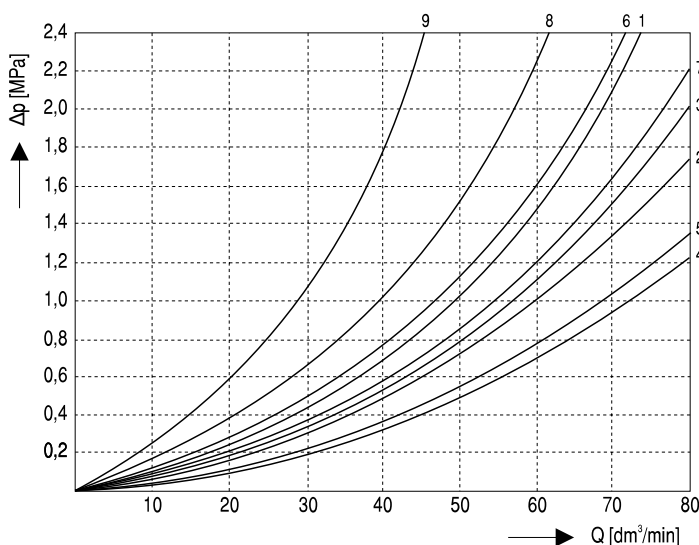
Solenoid operated directional control valves of type RSE4-06 are delivered assembled. Spare parts and mounting screws are not included in package. These must be ordered separately.

TECHNICAL DATA

Technical data	Symbol	Unit	Value
Valve size	D_n	mm	06
Maximal flow	Q_{max}	dm ³ /min	see Operating Limits
Maximal operating pressure in ports P, A, B	$P_{max,a}$	MPa	35
Maximal operating pressure in port T	$P_{max,t}$	MPa	21
Pressure drop	Δp	MPa	see Pressure Drop curves
Viscosity range	ν	m ² /s	$10 \cdot 10^{-6}$ up to $400 \cdot 10^{-6}$
Maximum degree of fluid contamination	class 9 according to NAS 1638, 18/15 according to ISO 4406		
Fluid temperature range	t_{po}	°C	-20 up to +60
Ambient temperature range	t_k	°C	-20 up to +50
Enclosure type to EN 60 529	IP 65		
Hydraulic medium	Hydraulic oils of power class (HL,HLP) according to DIN 51524		
Weight - valve with 1 solenoid - valve with 2 solenoids	m	kg	1.5 1.95
Service life	>10 ⁶ cycles		
Installation dimensions	according to: DIN 24 340 / ISO 4401 / CETOP RP121-H		
Duty cycle		%	100
Mounting position	as desired		

PRESSURE DROP $\Delta p = f(Q)$

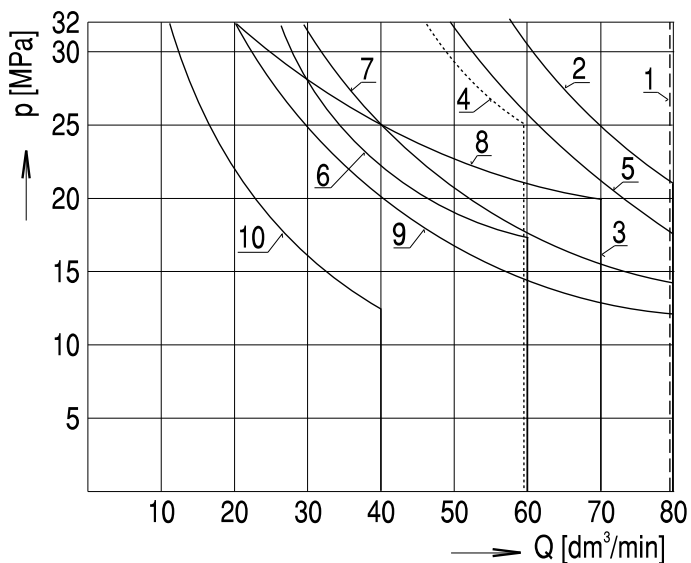
Measured at $\theta = 50^\circ\text{C}$, $\nu = 35 \text{ mm}^2/\text{s}$



Spool type	Respective pressure drop curve No.:				
	P-A	P-B	A-T	B-T	P-T
Z1	1	1	2	2	-
H1	3	3	4	4	-
Y1	1	1	4	4	-
Y2	1	1	5	5	-
L2	3	1	4	2	-
P1	3	3	2	2	-
B1	1	1	2	4	-
R1	6	6	2	2	-
X1	6	6	2	2	-
J1	6	6	2	2	-
R2	7	1	5	4	-
X2	7	1	5	4	-
J2	7	1	5	4	-
V1	1	1	-	-	-
A5	1	1	-	-	-
J7	1	1	-	-	-
C1	3	3	2	2	9
C2	8	8	6	6	9
Z2	3	3	-	2	-
P5	-	3	2	-	-
Y5	-	1	4	-	-

OPERATING LIMITS $Q_{max} = f(p)$

Measured at $\theta = 50^\circ\text{C}$, $v = 35 \text{ mm}^2/\text{s}$



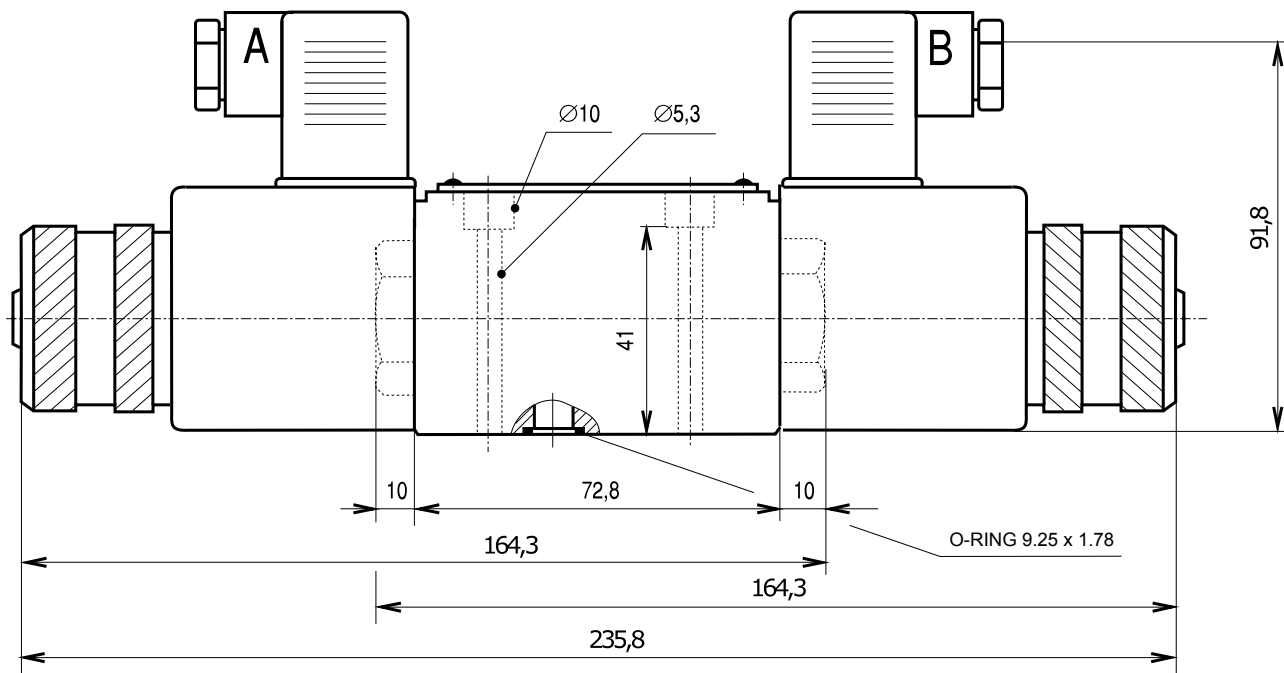
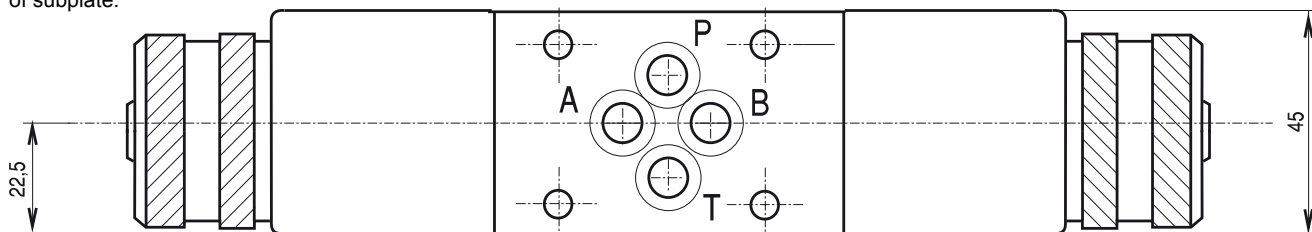
Curve No.:	Respective spool type:
1	Z1, B1, Y2, J14, J24, J74, J15, J25, J75
2	Y1, Y5
3	R2, X2
4	R1, X1
5	V1, A5
6	Z2
7	P1, P5
8	H1
9	C1, C2
10	L2

VALVE DIMENSIONS

0.01/100 mm

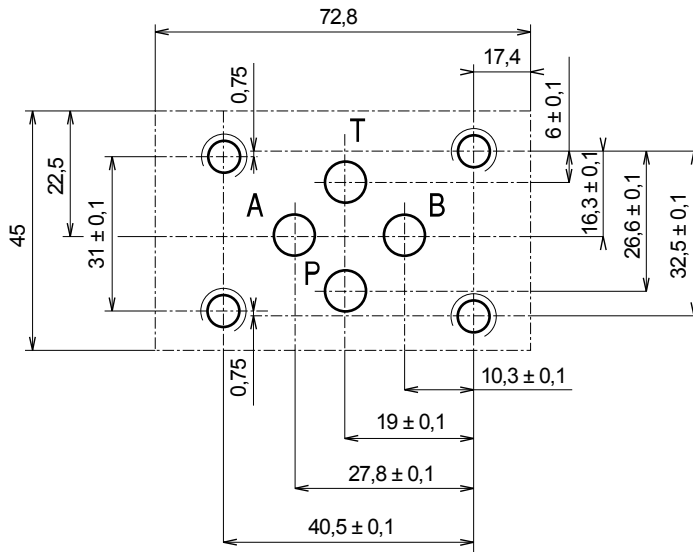
1.6/√R

Required surface finish of subplate.


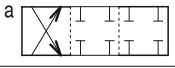






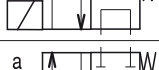
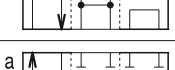
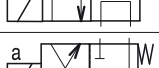
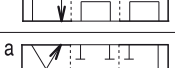






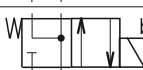
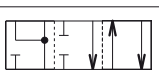
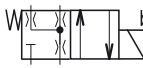
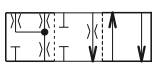
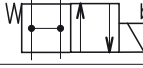
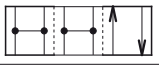

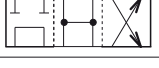

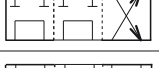



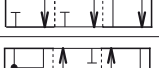
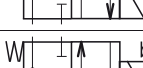
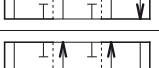








INSTALLATION DIMMENSIONS

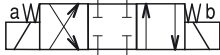
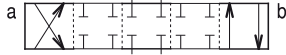
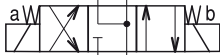
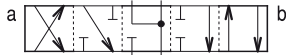
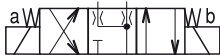
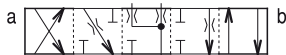
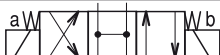
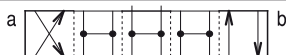
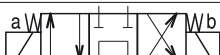
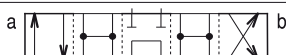
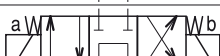
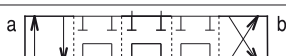
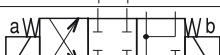
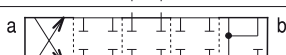




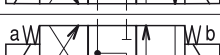

Note: Installation dimmensions according to ISO 4401, DIN 24 340, CETOP RP121-H (CETOP 3)


**SPOOL TYPES AND CROSSOVERS
TWO POSITION**

Type	Symbol	Crossover
RSE 4-062	R11	
RSE 4-062	R21	
RSE 4-062	A51	
RSE 4-062	X11	
RSE 4-062	X21	
RSE 4-062	V11	
RSE 4-062	J14	
RSE 4-062	J24	
RSE 4-062	J74	
RSE 4-062	J15	
RSE 4-062	J25	
RSE 4-062	J75	
RSE 4-062	P51	
RSE 4-062	Y51	

Type		Symbol	Crossover
RSE 4-062	AZ11		
RSE 4-062	AY11		
RSE 4-062	AY21		
RSE 4-062	AH11		
RSE 4-062	AC11		
RSE 4-062	AC21		
RSE 4-062	AB11		
RSE 4-062	AP11		
RSE 4-062	AL21		
RSE 4-062	BZ11		
RSE 4-062	BY11		
RSE 4-062	BY21		
RSE 4-062	BH11		
RSE 4-062	BC11		
RSE 4-062	BC21		
RSE 4-062	BZ21		
RSE 4-062	BB11		
RSE 4-062	BP11		
RSE 4-062	BL21		
RSE 4-062	BZ61		

SPOOL TYPES AND CROSSOVERS THREE POSITION

Type		Symbol	Crossover
RSE 4-063	Z11		
RSE 4-063	Y11		
RSE 4-063	Y21		
RSE 4-063	H11		
RSE 4-063	C11		
RSE 4-063	C21		
RSE 4-063	Z21		
RSE 4-063	B11		
RSE 4-063	P11		
RSE 4-063	L21		

SPARE PARTS

Seal kit

Type	Dimensions and quantity	
	O-ring	
Standard NBR 80	9.25 x 1.78 mm (4pcs)	17.17 x 1.78 mm (2pcs)

Bolt kit

Dimensions and quantity	Torque
M5x50 DIN 912-10.9 (4pcs)	8 [Nm]

NOTES

Consultancy service is provided by: **PQS Technology, Ltd.**

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