



# DIRECTIONAL CONTROL VALVE MODEL RSP 7-06

KE 2053

11/02

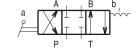
D<sub>n</sub> 06

P<sub>max</sub> 320 bar

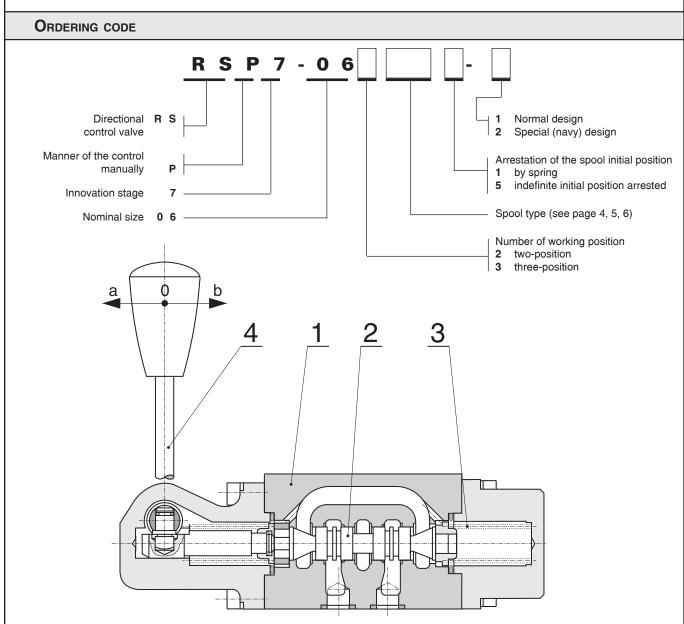
Q<sub>max</sub> 80 L/min

replaces 09/97





- hydraulic directional control valve hand lever controled
- directing and stopping flow in the hydraulic system
- Mounting interface to DIN 24 340-A, ISO 4401, CETOP RP 121H-03 (CETOP 3)



#### GENERAL DESCRIPTION

These directionals are designed as kit; it means that they consist basically of the directional and control units. The directional unit of the three-position and two-position directional has the identical design and always is created by housing 1 and cylindrical spool 2. The control unit always is created by two springs 3 and two flanges. Into one of this flange there is control lever 4 built-in, mounted on the rotary pin. Two-position directionals have in addition a stop located in this flange which limits just two position

of the directional. Sliding of the both arrested and non-arrested spools is solved with two variants of the shape of the pin head which is installed into rotary pin. Two variants of corresponding recesses are made onto draw bar. The design of directional control valve assures the appropriate interconnection of the pressure and non- pressure oil. The different variants of the interconnection are created with using of the different shape of the control spool.

#### INSTALLATION, SERVICE AND MAINTENANCE

The directional control valve is fixed with four bolts M5×60 DIN 912-8.8 torqued to 8 Nm. Required surface finish of mating pieces should be 0.01/100 mm with roughness of  $R_a$ =1.6  $\mu$ m max. These directionals are designed for the panel installation. With

subplate using they can be used for pipeline connection directly. The reliability of the directionals is tightly connected with assuring of described filtration in both working fluid and ambient temperature range. They can be installed in any position.

### Delivery, Material, Surface treatment

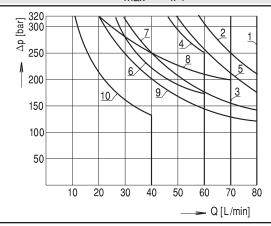
Directional control valves are delivered in assembly configuration including sealing rings and solenoids. Surface is phosphated. The valve top coat can be carried out in agreement with the producer. Each directional valve is delivered with instruction manual. It is not economically viable to repair the directionals.

Spare parts are not delivered. Fixing bolts, subplates and kit of spare sealing rings must be ordered separately. (Subplates according to KE 7006 page of the catalogue). Production materials used are caste iron, steel.

#### TECHNICAL DATA

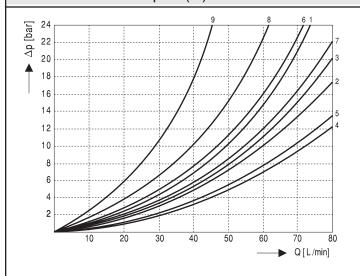
Technical data	Symbol	Unit	Value	
Nominal size	D <sub>n</sub>	mm	6	
Maximal flow	Q <sub>max</sub>	L/min	curve Q <sub>max</sub> = f(p)	
Maximal operating pressure in ports P, A, B	p <sub>max</sub>	bar	320	
Maximal operating pressure in port T	p <sub>max</sub>	bar	100	
Pressure drop	Δρ	bar	curve $\Delta p = f(Q)$	
Hydraulic medium			mineral oil (HL, HLP) by DIN 51 524	
Oil viscosity range	ν	m²/s	10.10 <sup>-6</sup> up to 400.10 <sup>-6</sup>	
Fluid filtration		a) class 9 according to NAS 1638, 18/15 according to ISO 4406 b) fluid filtration with $B_{20} \ge 100$ is recommended		
Fluid temperature range	t <sub>po</sub>	°C	−20 up to +80	
Environment temperature range	t <sub>k</sub>	°C	−20 up to +60	
Weight	m	ka	1.6	

# **O**PERATION LIMITS $Q_{max} = f(p)$



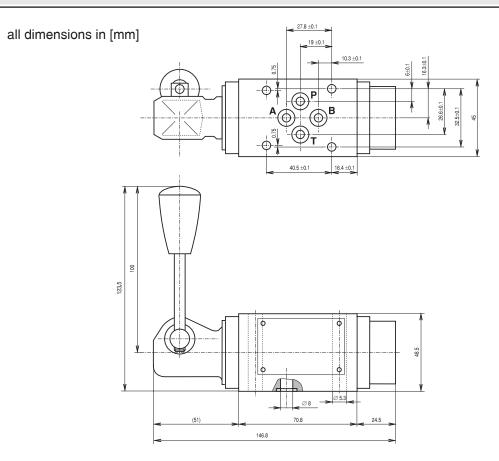
Curve	Spool type
1	Z1, B1, Y2, J1, J2, J7
2	Y1, Y5
3	R2
4	R1
5	A5
6	Z2
7	P1, P5
8	H1
9	C1, C2
10	L2

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



Туре	Pressure drop in accordance of 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	-
J1	6	6	2 5	2	-
R2	7	1	5	4	-
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	-	-

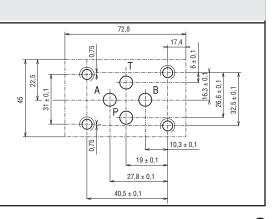
#### **U**NIT DIMENSIONS



## INSTALATION DIMENSIONS

Mounting surface according to ISO 4401, DIN 24 340-A, CETOP 3

Note: For all valve types the O-ring size  $9.25 \times 1.78 - NBR~80$  is used for ports P, A, B, T



## SPOOL TYPES - TWO POSITION

Initial position assured by spool spring.

Туре		Symbol	Interposition
RSP 7-062	AR11	a WW	a T T b
RSP 7-062	AR21	a WW	a b
RSP 7-062	AA51	a T T T W	a T T T b
RSP 7-062	AP51	a W	a TTT b
RSP 7-062	AY51	a P	a TTT b
RSP 7-062	AZ11	a W T T W	a
RSP 7-062	AY11	a W	a T T O
RSP 7-062	AY21	a W T W	a TITO O
RSP 7-062	AH11	a W	a o
RSP 7-062	AC11	a WATTI	a O
RSP 7-062	AC21	a WATTI I	a 1 1 1 1 0
RSP 7-062	AZ21	a W T T W	a 7 1 1 1 0
RSP 7-062	AB11	a W T W	a 1 1 1 0
RSP 7-062	AP11	a W	a T T O
RSP 7-062	AL21	a W	a O
RSP 7-062	BZ11	W I I W W	0 1 1 1 1 b
RSP 7-062	BY11	b P P P P P P P P P P P P P P P P P P P	O TT T V b
RSP 7-062	BY21	M W W b	O THE THE PERSON DE THE PERSON
RSP 7-062	BH11	₩ b	0 b
RSP 7-062	BC11	a WI I W	o
RSP 7-062	BC21	a WI I W	0 1 1 1 p
RSP 7-062	BZ21	a W T T T W	0 1 1 1 1 b
RSP 7-062	BB11	WI J b	O T V D b
RSP 7-062	BP11	₩ TIN b	0 T T T b
RSP 7-062	BL21	W W	0 T T D
RSP 7-062	BX11	P W b	a T T b
RSP 7-062	BX21	₽ W b	a b
RSP 7-062	BV11	A TILL B	a TIMI b
RSP 7-062	BX31	A W	a b

## Initial position indefinite with arrestation

Туре		Symbol	Interposition
RSP 7-062	AJ15		a I I b
RSP 7-062	AJ25	a A	a b
RSP 7-062	AJ75	a T T T	a T b
RSP 7-062	AZ15	a TT	a
RSP 7-062	AY15	a T	a O
RSP 7-062	AY25	a T	a T T T O
RSP 7-062	AH15	a la	a o
RSP 7-062	AC15	a limit v	a O
RSP 7-062	AC25	a littly	a TIII o
RSP 7-062	AZ25	a TIT	a 1 1 1 0 0
RSP 7-062	AB15	a T T	a I II O
RSP 7-062	AP15	a A	a T T O
RSP 7-062	AL25	a A	a 0
RSP 7-062	BJ15	A No.	a T T b
RSP 7-062	BJ25	A Note that the second	a b
RSP 7-062	BJ75	A TITY b	a T T T b
RSP 7-062	BJ85	A V b	a b
RSP 7-062	BZ15		0
RSP 7-062	BY15	₽ŢŢŢŢŢ b	O T T V b
RSP 7-062	BY25	₽ŢŢŢŢŢ, p	O X X I V D
RSP 7-062	BH15	₽ → I b	0
RSP 7-062	BC15	ALTIN b	0 T T b
RSP 7-062	BC25	ALT V' b	0 T T T D
RSP 7-062	BZ25	PITT b	0
RSP 7-062	BB15	₽ŢŢŢŢ b	0
RSP 7-062	BP15	₽ŢŢŢ, p	0
RSP 7-062	BL25	<u> </u>	0 T T V b

## SPOOL TYPES - THREE POSITION

### Initial position indefinite with arrestation

Туре		Symbol	Interposition
RSP 7-063	Z15	a b	a
RSP 7-063	Y15	a b	a T T T D b
RSP 7-063	Y25	a T b	a The state of the
RSP 7-063	H15	a b	a b
RSP 7-063	C15	a b	a b
RSP 7-063	C25	a b	a TITITI b
RSP 7-063	Z25	a b	a
RSP 7-063	B15	a b	a 1 1 1 1 b
RSP 7-063	P15	a b	a T T T D
RSP 7-063	L25	a b	a Linib b

### Initial position assured by spool spring.

Туре		Symbol	Interposition
RSP 7-063	Z11	a W D	a
RSP 7-063	Y11	a W b	a T T T D b
RSP 7-063	Y21	a W W b	a Till III b
RSP 7-063	H11	a W W b	a b
RSP 7-063	C11	a W M b	a b
RSP 7-063	C21	a W M b	a N I I I I I I I b
RSP 7-063	Z21	a W D	a
RSP 7-063	B11	a W W b	a 1 1 1 1 1 b
RSP 7-063	P11	a W W b	a T T T D
RSP 7-063	L21	a_W b	a Linib b

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