

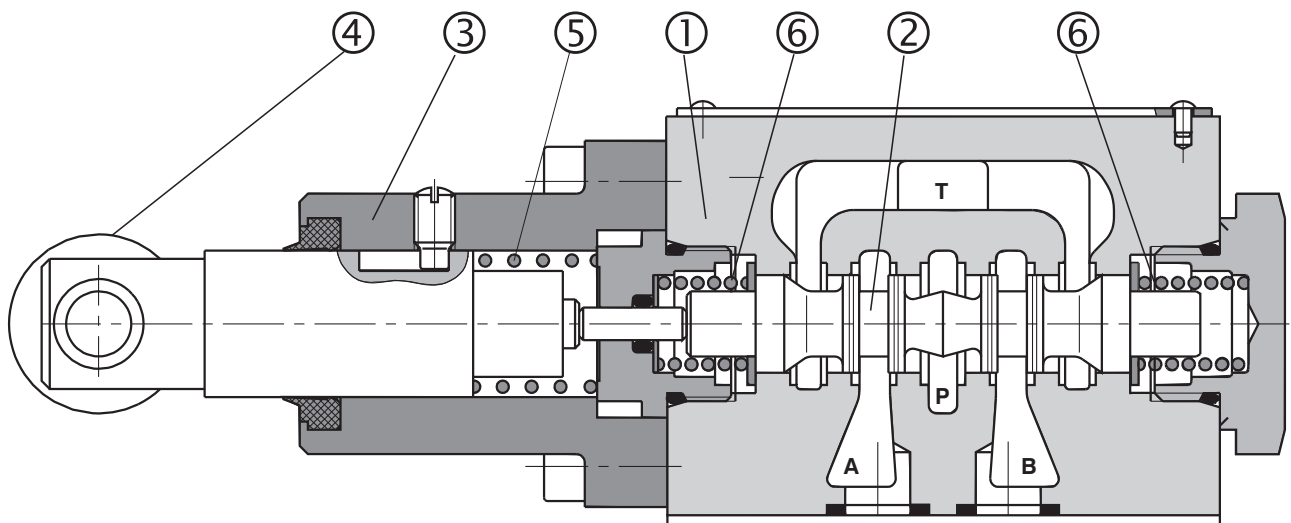
- 4/2 -way spool type directional control valves
- Roller cam-operated
- Actuating section can be rotated 90°
- Installation dimensions to ISO 4401 / CETOP RP121-H / DIN 24 340



## Functional Description

The Roller cam-operated directional control valves are used mainly to control start, stop and direction of fluid. The valves consist of housing (1) with control spool (2) with two centering springs (6) and the actuating section (3). The actuating section consists either of the roller-pin

(4) and of one return spring (5). The directional control valves are being manufactured as two-position valves (see table with functional symbols). The valve housing (1) is phosphate coated.



## Ordering Code

**RPK1-06**   -

**Directional Control Valves**  
Roller cam-operated

**Valve size**

**Number of valve positions**  
two positions

no designation  
**V**

**Seals**  
NBR  
FPM (Viton)

**Spool symbols**  
see the table spool symbols

## Technical Data

Valve size	US (mm)	06 (D 03)
Maximum flow	l/min (GPM)	80 (21)
Maximum operating pressure at ports P, A, B	bar (PSI)	350 (5076)
Maximum operating pressure at port T	bar (PSI)	20 (290)
Pressure drop	bar (PSI)	see $\Delta p$ -Q characteristics
Hydraulic fluid	Hydraulic oils of power classes (HL, HLP) to DIN 51524	
Fluid temperature range - NBR	°C (°F)	-30 ... +100 (-22 ... +212)
Fluid temperature range - Viton	°C (°F)	-20 ... +120 (-4 ... +248)
Viscosity range	mm <sup>2</sup> /s (SUS)	20 ... 400 (98 ... 1840)
Maximum degree of fluid contamination	Class 21/18/15 to ISO 4406 ( 1999).	
Service life	cycles	10 <sup>6</sup>
Weight	kg (lbs)	1,6 (3.53)
Mounting position	any	

## Spool Symbols

Type	Symbol	Crossover	Type	Symbol	Crossover
R11			Z51		
R21			H51		
A51			Z11		
P51			X11		
Y51			C11		
C51			H11		

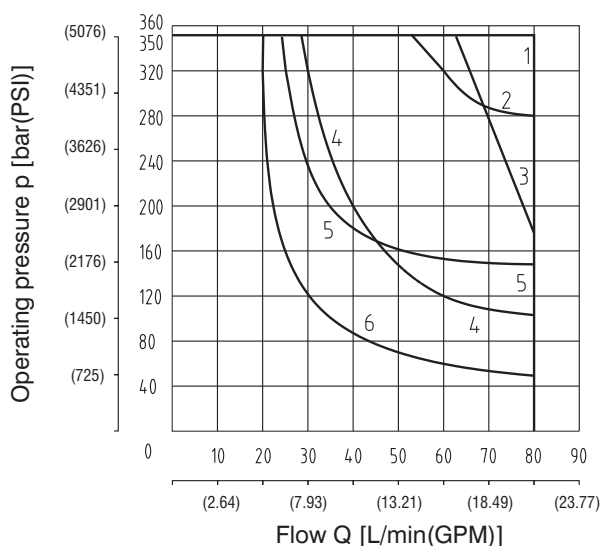
## Operating Power

Operating press.	for 0 bar(0 PSI) pressure in T port			for 20 bar (290 PSI) pressure in T port		
	Stroke begg.	Oper. stroke	Total stroke	Stroke begg.	Oper. stroke	Total stroke
100 bar(1450 PSI)	35 N (8 lbs)	135 N (30 lbs)	195 N (44 lbs)	60 N (13 lbs)	160 N (36 lbs)	220 N (49 lbs)
200 bar(2901 PSI)	35 N (8 lbs)	135 N (30 lbs)	195 N (44 lbs)	60 N (13 lbs)	160 N (36 lbs)	220 N (49 lbs)
300 bar(4351 PS)	35 N (8 lbs)	135 N (30 lbs)	195 N (44 lbs)	60 N (13 lbs)	160 N (36 lbs)	220 N (49 lbs)

### p-Q Characteristic

Measured at  $v = 32 \text{ mm}^2/\text{s}$  (156 SUS)

Operating limits for maximum hydraulic power transferred by the directional valve. For respective spool type - see spool symbols.

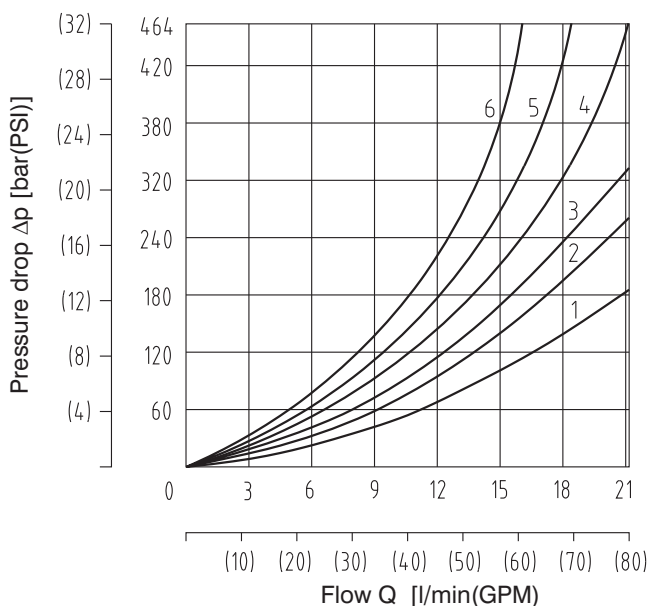


Y11	1
Y51	1
R11	2
Z11	3
Z51	3
C11	4
C51	4
R21	5
H11	6
H51	6

### $\Delta p$ -Q Characteristic

Measured at  $v = 32 \text{ mm}^2/\text{s}$  (156 SUS)

Pressure drop  $\Delta p$  related to flow rate.



	P-A	P-B	A-T	B-T	P-T
Z11	2	2	3	3	
C11	5	5	5	6	3
H11	2	2	2	2	3
R11	2	2	3	3	
R21	2	2	3	3	
A51	2	2			
P51		1	3		
Y51		2	2		
C51	2			3	4
Z51		2	3		
H51		2	3		
X11	2	2	3	3	

### Valve Dimensions

Dimensions in millimeters and inches

