

Hydraulic Operated Directional Control Valves

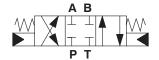
RPH3-06

HA 4006 04/2011

Replaces HA 4006 12/2007

Size 06 (D 03) • 350 bar(5076 PSI) • 80 L/min(21 GPM)





- Installation dimensions to DIN 24 340 / ISO 4401 / CETOP RP121-H
- ☐ Connecting threads M10x1, G1/8



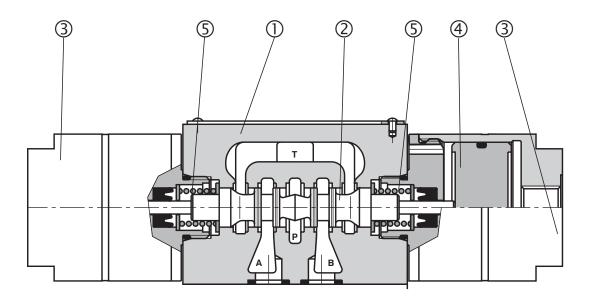
Functional Description

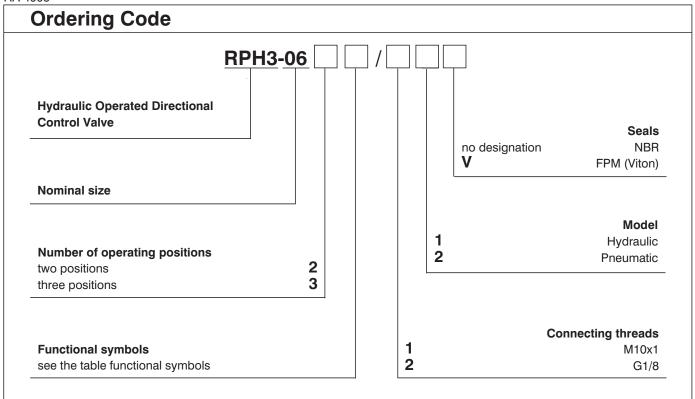
The directional control valves are of modular design and comprise a housing (1) with a cylidrical spool (2) and one or two operating elements (3) consisting of hydraulic pistons (4) and return spring (5).

Three-position directional valves are fitted with two hydraulic operating elements and two centering

springs. Two-position directional valves have only one hydraulic operating element and one springs.

The basic surface treatment of the valve housing is phosphate.





rechnical Data		
Valve size	mm(US)	06
Maximum flow (according to pressure and functional symbols)	L/min (GPM)	see p-Q characteristics
Maximum operating pressure at ports P, A, B	bar (PSI)	350 (5076)
Maximum operating pressure at port T	bar (PSI)	160 (2321)
Minimum pilot pressure	bar (PSI)	2 (29)
Maximum pilot pressure	bar (PSI)	25 (362.6)
Pilot volume	cm ³ (cu.in).	6,2 (0,378)
Pressure drop	bar (PSI)	see Δ p-Q characteristics
Hydraulic fluid		Hydraulic oils of power classes (HL, HLP) to DIN 51524
Fluid temperature range for standard sealing (NBR)	°C (°F)	-30 +100 (-22 +21)
Fluid temperature range for Viton seals (FPM)	°C (°F)	-20 +120 (-4 +248)
Viscosity range	mm ² /s (SUS)	20 400 (98 1840)
Maximum degree of fluid contamination		Class 21/18/15 to ISO 4406
Service life	cycles	10 ⁷
Weight valve with 1 actuatop valve with 2 actuators	kg (lbs)	1,8 (3.96) 2,5 (5.50)
Mounting position		unrestricted

Spare Parts

M5 x 45 DIN 912-10.9 (4 pcs.)

Technical Data

Seal	kit
Seai	ΚIL

Туре	Dimansion	Ordering number				
Standard NBR	9,25 x 1,68 NBR70 (4 pcs.)	17 x 1,8 (2 pcs.)	15845200			
Viton	Viton 9,25 x 1,78 (4 pcs.) 17,17 x 1,78 (2 pcs.)		15845400			
Mounting bolts						
Dimensions, number	Tightenin	Ordering number				

8.9 Nm (6.6 ft-lbf)

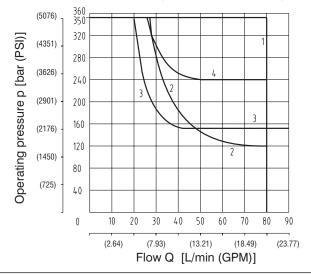
15845100

Functional Symbols						
Three position directional valves RPH3-063		Two position directional valves RPH3-062				
Type	Symbol	Crossover	Type	Symbol	Crossover	
Z11	A B T T D D D		R11	a A B		
C11	□ A B B D D D D D D D D D D D D D D D D D		A51	$\begin{array}{c c} a & \stackrel{A}{\longrightarrow} & \stackrel{B}{\longrightarrow} & \stackrel{A}{\longrightarrow} & \stackrel{A}{\longrightarrow} & \stackrel{B}{\longrightarrow} & \stackrel{A}{\longrightarrow} & A$		
H11	a A B	$X \mapsto H \mapsto M$	P51	a A B		
P11	a B b		Y51	a A B		
Y11	A B		X11	A B b		
L21	a B		J15	a P T		
B11	a B		J75	a		

p-Q Characteristics

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

Operating limits for maximum hydraulic power transferred by the directional valve. Measured by steering pressure 2 bar (29 PSI). For respective spool type - see Functional Symbols.

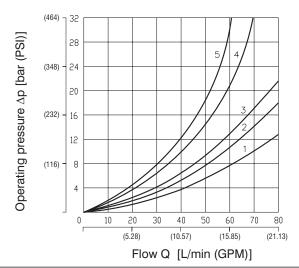


1
2
3
1
1
4
1
1
1
1
2
1
1
1

∆p-Q Characteristics

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

Pressure drop Δp related to flow rate.



P-A P-B A-T B-T P-T Z11 2 2 3 3 C11 4 4 4 5 3 H11 2 2 2 2 3 P11 1 1 3 3 Y11 2 2 2 2 L21 2 2 3 3 B11 2 2 3 3 R11 2 2 3 3 A51 2 2 3 3						
C11 4 4 4 5 3 H11 2 2 2 2 3 P11 1 1 3 3 Y11 2 2 2 2 L21 2 2 3 3 B11 2 2 3 3 R11 2 2 3 3		P-A	P-B	A-T	В-Т	P-T
H11 2 2 2 2 3 P11 1 1 3 3 Y11 2 2 2 2 L21 2 2 3 3 B11 2 2 3 3 R11 2 2 3 3	Z11	2	2	3	3	
P11 1 1 3 3 Y11 2 2 2 2 L21 2 2 3 3 B11 2 2 3 3 R11 2 2 3 3	C11	4	4	4	5	3
Y11 2 2 2 2 L21 2 2 3 3 B11 2 2 3 3 R11 2 2 3 3	H11	2	2	2	2	3
L21 2 2 3 3 B11 2 2 3 3 R11 2 2 3 3	P11	1	1	3	3	
B11 2 2 3 3 R11 2 2 3 3	Y11	2	2	2	2	
R11 2 2 3 3	L21	2	2	3	3	
	B11	2	2	3	3	
A51 2 2	R11	2	2	3	3	
	A51	2	2			
P51 1 3	P51		1	3		
Y51 2 2	Y51		2	2		
X11 2 2 3 3	X11	2	2	3	3	
J15 2 2 3 3	J15	2	2	3	3	
J75 2 2	J75	2	2			

HA 4006 **Valve Dimensions** Dimensions in millimeters (inches) 40,5(1.59) 12.5(0.49) 33(1.30) 30,2(1.19) 5 21.5(0.85) 5,1(0.20) 7 (0.28) 12,7(0.50) 45.5(1.79) 25.9 (1.02) 32,5(1.28) 3,5 (0.14) 3,5 (0.14) 47 (1.85) 68 (2.68) 47(1.85) 162(6.38) Ø9.5 (0.37) ϕ 5,3(2.09) 3 49,3(1,93 41(1.61) 36 (1.42) 045(1.77) 37,3(1,47) Ρ 1(0.04) (90.0) 4 Ø8(0.31) Ø12,4(0.49) 2 0.0004 / 4.0 [in] P 0.01 / 100 [mm] Rmax 6,3(248) [μm(μin)] 0,8(32) 8(0.31) Required surface finish of 123 (4.84) interface 1 Operating element 1 Р

- 2 Operating element 2
- 3 Name plate
- 4 Square ring 9.25 x 1.68 (4 pcs.) supplied with each valve
- 5 4 mounting holes

Caution!

- For applications outside the given parameters, please consult us.
- Other for spool symbols on request.
- The packing foil is recyclable.
- The protective plate can be returned to manufacturer.
- Mounting screws M5 x 45 DIN 912-10.9 or bolts must be ordered separately. The screws tightening torque is 8.9 Nm (6.6 ft-lbs).
- The technical information regarding the product presented in this catalogue is for descriptive purposes only. It should not be construed in any case as a guaranteed representation of the product properties in the sense of the law.

ARGO-HYTOS s.r.o. CZ - 543 15 Vrchlabí Tel.: +420-499-403111, Fax: +420-499-403421

E-mail: sales.cz@argo-hytos.com

www.argo-hytos.com