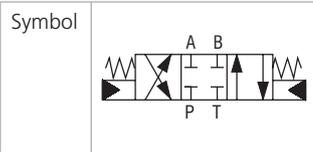


4/2 and 4/3 Directional Control Valve, Hydraulically or Pneumatically Operated

**RPH3-06**

Size 06 (D03) • Q<sub>max</sub> 80 l/min (21 GPM) • p<sub>max</sub> 350 bar (5100 PSI)



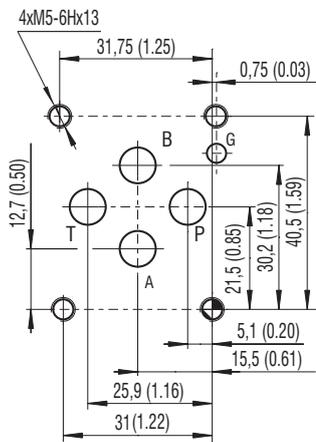
**Technical Features**

- › Direct acting directional control valve, hydraulically or pneumatically operated with subplate mounting interface acc. to ISO 4401, DIN 24340 (CETOP 03)
- › High transmitted hydraulic power up to 350 bar with optimized design to minimize pressure drop
- › Five chamber housing design with reduced hydraulic power dependence on fluid viscosity
- › Minimum pilot pressure 2 bar (29 PSI) for maximum hydraulic power
- › Wide range of interchangeable spools available
- › M10x1, G1/8, G1/4 connection thread for hydraulic / pneumatic operation
- › In the standard version, the valve housing is phosphated for basic surface corrosion protection and as preparation for painting. Steel parts are zinc-coated for 240 h salt spray protection acc. to ISO 9227
- › Enhanced surface protection for mobile sector available for the valve housing and steel parts (ISO 9227, 520 h salt spray)

**Functional Description**

These hydraulically or pneumatically operated directional control valves are used mainly to control start, stop and direction of fluid. The valves consist of a housing, a control spool with two centering springs, and the actuating section. The actuating section consists of the hydraulic or pneumatic actuation cylinder. The directional control valves are manufactured as two or three position valves (see table with functional symbols).

**ISO 4401-03-02-0-05**



Ports P, A, B, T max Ø7.5 mm (0.29 in)

**Technical Data**

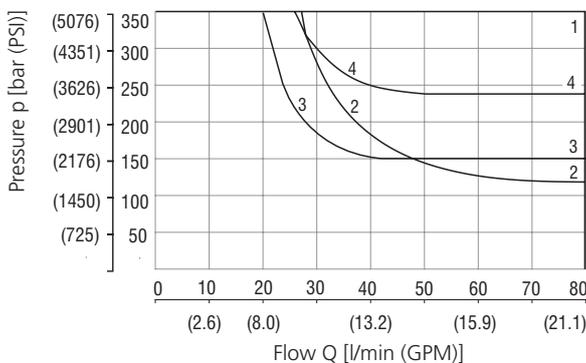
Valve size	06 (D03)	
Max. flow	l/min (GPM)	80 (21)
Max. operating pressure P, A, B	bar (PSI)	350 (5100)
Max. operating pressure at port T	bar (PSI)	160 (2320)
Min. pilot pressure	bar (PSI)	2 (30)
Max. pilot pressure	bar (PSI)	25 (360)
Pilot volume	cm <sup>3</sup> (cu.in)	6,2 (0.38)
Fluid temperature range (NBR)	°C (°F)	-30 ... +100 (-22 ... +212)
Weight	valve with 1 actuator	kg (lbs)
	valve with 2 actuators	kg (lbs)
		1.8 (3.96)
		2.5 (5.50)

	Datasheet	Type
General information	HA 0060	Products and operating conditions
Mounting interface	HA 0019	Size 06
Spare parts	HA 8010	

**Characteristics** measured at v = 32 mm<sup>2</sup>/s (156 SUS)

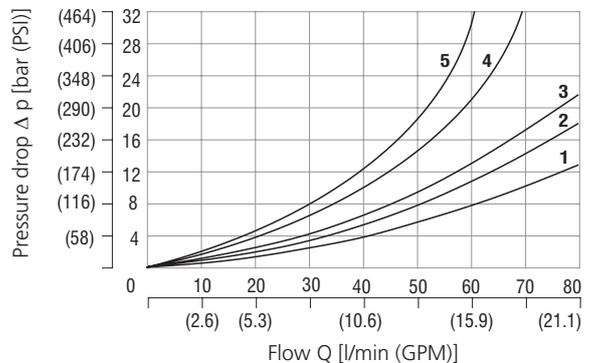
**Operating limits**

Operating limits for maximum hydraulic power with min. piloting pressure



Z11, P11, Y11, B11, R11, A51, P51, X11, J15, J75	1
C11, Y51	2
H11	3
L21	4

**Pressure drop related to flow rate**

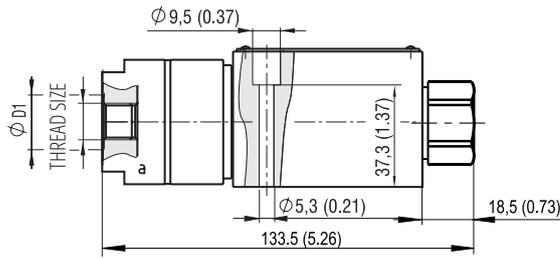


	P-A	P-B	A-T	B-T	P-T		P-A	P-B	A-T	B-T	P-T
Z11, L21, B11, R11, X11, J15	2	2	3	3		Y11	2	2	2	2	
C11	4	4	4	5	3	A51, J75	2	2			
H11	2	2	2	2	3	P51		1	3		
P11	1	1	3	3		Y51		2	2		

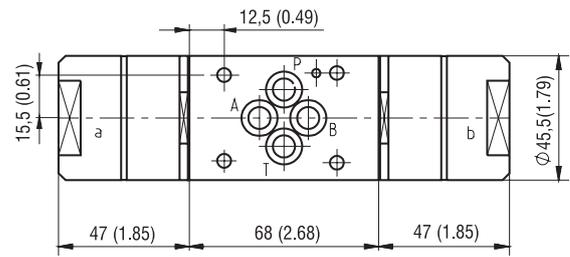
For operating limits under conditions and flow directions other than shown contact our technical support. Admissible operating limits may be considerably lower with only one direction of flow (A or B plugged, or without flow.)

**Dimension** in millimeters (inches)

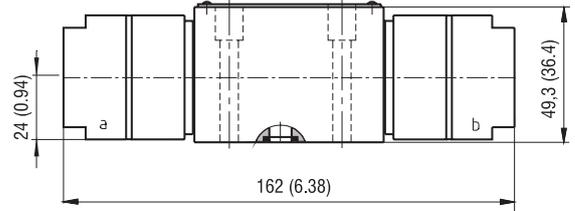
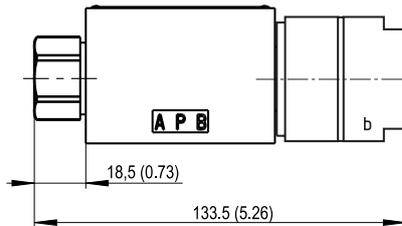
**Valve with two positions  
one actuating section, „a“**



**Valve with three positions  
two actuating sections**



**Valve with two positions  
one actuating section, „b“**



Thread size	Ø D1
M10 x 1, G1/8	15 (0.59)
G1/4	20 (0.79)

Required surface quality of the counterpart 0,01/100 mm  
0,8 (Rmax. 6,3)

**Spool Symbols**

Type	Symbol	Interposition	Type	Symbol	Interposition
Z11			R11		
C11			A51		
H11			P51		
P11			Y51		
Y11			X11		
L21			J15		
B11			J75		

**Ordering Code**

**RPH3-06**   /  - **2**  -

**4/2 and 4/3 directional control valve, hydraulically or pneumatically operated**

**Valve size**

**Number of valve positions**  
two positions **2**  
three positions **3**

**Spool symbols**  
see the table „Spool Symbols“

**Surface treatment**  
No designation standard  
**A** zinc-coated (ZnCr-3), ISO 9227 (240 h)  
**B** zinc-coated (ZnNi), ISO 9227 (520 h)

**Seals**  
No designation NBR

**Version**  
hydraulic or pneumatic

**Connection thread for hydraulic / pneumatic operation**  
**1** M10x1  
**2** G1/8  
**3** G1/4

Mounting bolts M5x45 DIN 912-10.9 or studs must be orderer separately see Spare Parts datasheet HA 8010. Tightening torque is 8.9 Nm (6.56 lbf.ft). Besides the commonly used valve versions shown other special models are available. Contact our technical support for their identification, feasibility and operating limits.