

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

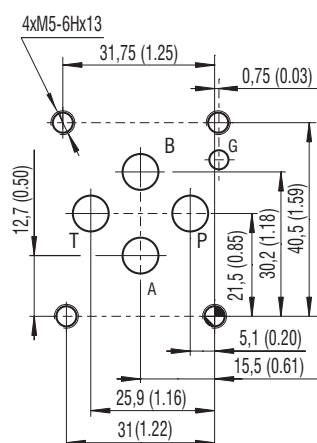
These hydraulically or pneumatically operated directional control valves are used mainly to control start, stop and direction of fluid. The valves consist of a housing, a control spool with two centering springs, and the actuating section. The actuating section consists of the hydraulic or pneumatic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

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 ³ (cu.in)	6,2 (0.38)
Fluid temperature range (NBR)		-30 ... +100 (-22 ... +212)
Weight	valve with 1 actuator	1.8 (3.96)
	valve with 2 actuators	2.5 (5.50)

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

ISO 4401-03-02-0-05

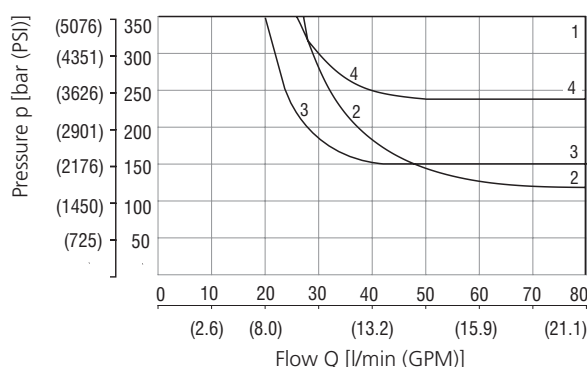


Ports P, A, B, T max Ø7.5 mm (0.29 in)

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

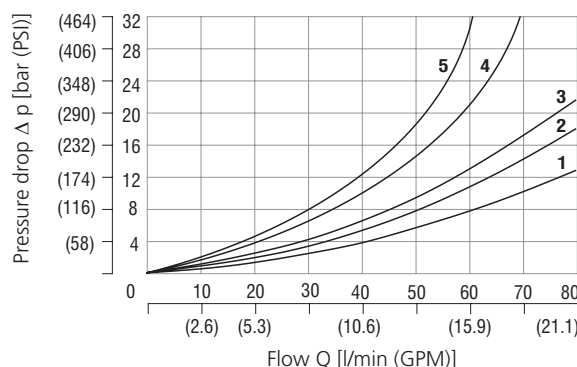
Operating limits

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

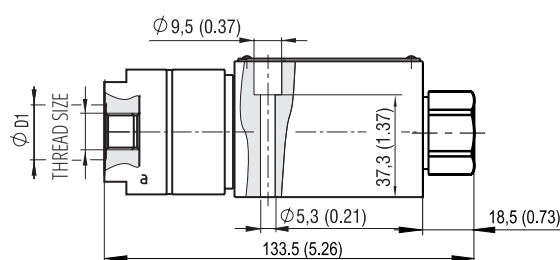


	P-A	P-B	A-T	B-T	P-T		P-A	P-B	A-T	B-T	P-T
Z11, L21, B11, R11, X11, J15	2	2	3	3		Y11	2	2	2	2	
C11	4	4	4	5	3	A51, J75	2	2			
H11	2	2	2	2	3	P51		1	3		
P11	1	1	3	3		Y51		2	2		

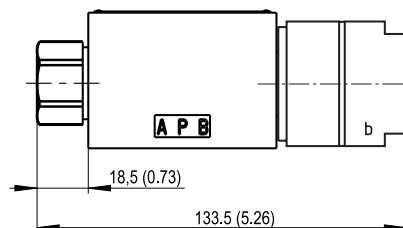
For operating limits under conditions and flow directions other than shown contact our technical support. Admissible operating limits may be considerably lower with only one direction of flow (A or B plugged, or without flow.)

Dimension in millimeters (inches)

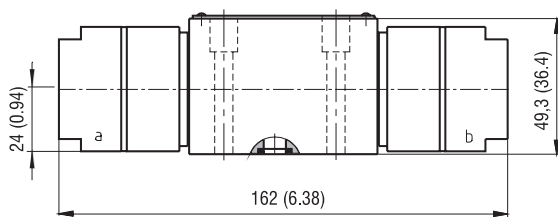
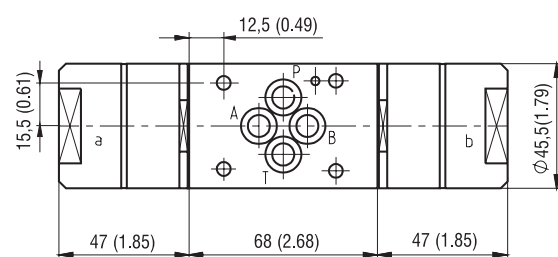
**Valve with two positions
one actuating section „a“**



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

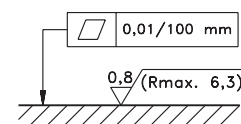


**Valve with three positions
two actuating sections**



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

Required surface quality of the counterpart



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“

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

Surface treatment
standard

No designation

Seals
NBR

Version
hydraulic or pneumatic

Connection thread for hydraulic / pneumatic operation
M10x1
G1/8
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.