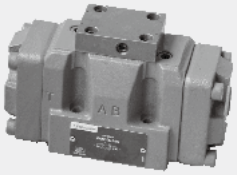
Hengli®

2.16

4/3, 4/2 and 3/2 directional valve with fluidic actuation

Type WH 10, 16, 25 and 32

Sizes 10 ～ 32
Up to 280/350 bar
Up to 1100L/min



Contents

Features

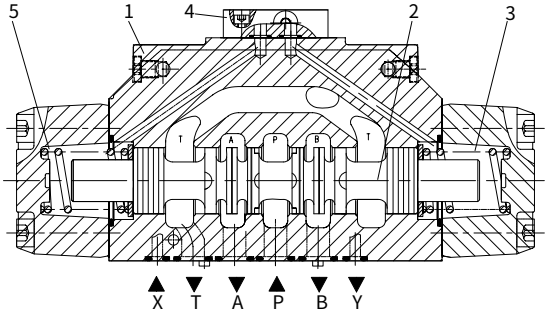
- Valves used to control the start, stop and direction of a fluid flow
- Hydraulic operation (WH)
- Porting pattern conforms o DIN 24 340 form A, ISO 4401 and CETOP-RP 121 H

Function and configuration

Valves of type WH are directional spool valves with hydraulic operation. They control the start, stop and direction of a flow.

1.Spring-centred valve:

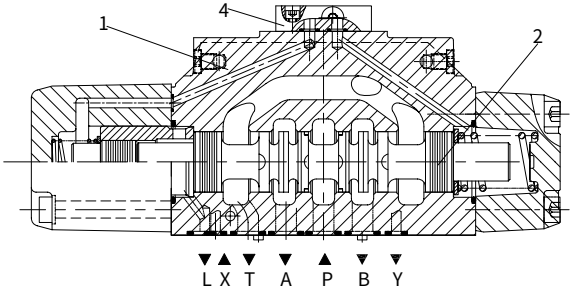
The main spool (2) is kept in the centre position by the return springs (3). If external control fluid enters main valve(1) from port X then enters left spring chamber(5) via cover(4), the main spool is pushed into the switching position. The oil of right spring chamber returns to tank from port Y. When the control fluid is cancelled, the main spool returns to centre position under the action of right spring force. And if the control fluid enters from port Y, then the main spring moves to left to switching direction and the oil of left spring chamber returns to tank from port X.



Structure chart of valve type WH25 with spring-centred

2. Hydraulic-centred valve:

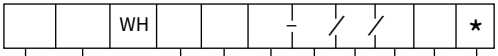
Pressure fluid acts on both sides of main spool (2) and main spool(2) is fixed by a locating sleeve. If one side of the main spool is unloaded, then it moves under pressure at opposite side to switch direction. If the control fluid enters left chamber of main valve from port X, the main spool moves right, the fluid of right chamber returns to tank from port Y; and if the control fluid enters right chamber from port Y, the main spool moves left, the fluid of left chamber returns to tank from port X. Internal leakage oil directly returns to tank from port L.



Structure chart of valve type WH25 with spring-centred

Switching time adjustment (see WEH)
Characteristic curve (see WEH)
Performance limits (see WEH)
Flow area when valve is in central position (see WEH)
Technical data (see hydraulic part of WEH technical data)
Additional device (stroke adjustment) (see WEH)

Ordering code



280 bar = No code
350 bar = H-
(Not for size 10)

3 way = 3
(only for spool A and B)
4 way = 4

Nominal size: 10 = 10
16 = 16
25 = 25
32 = 32

Spring-centred or offset = No code
Hydraulic-centred or offset = H
(For size 10, only symbols A, B, C, D, K, Z, Y with H)

Spool symbol (see spool symbols)

L4X= Series L40 to L49 (size 10)
L7X= Series L70 to L79 (size 16,25 and 32)

No code = Without switching time adjustment
S = With switching time adjustment, meter in throttle
S2 = With switching time adjustment, meter out throttle

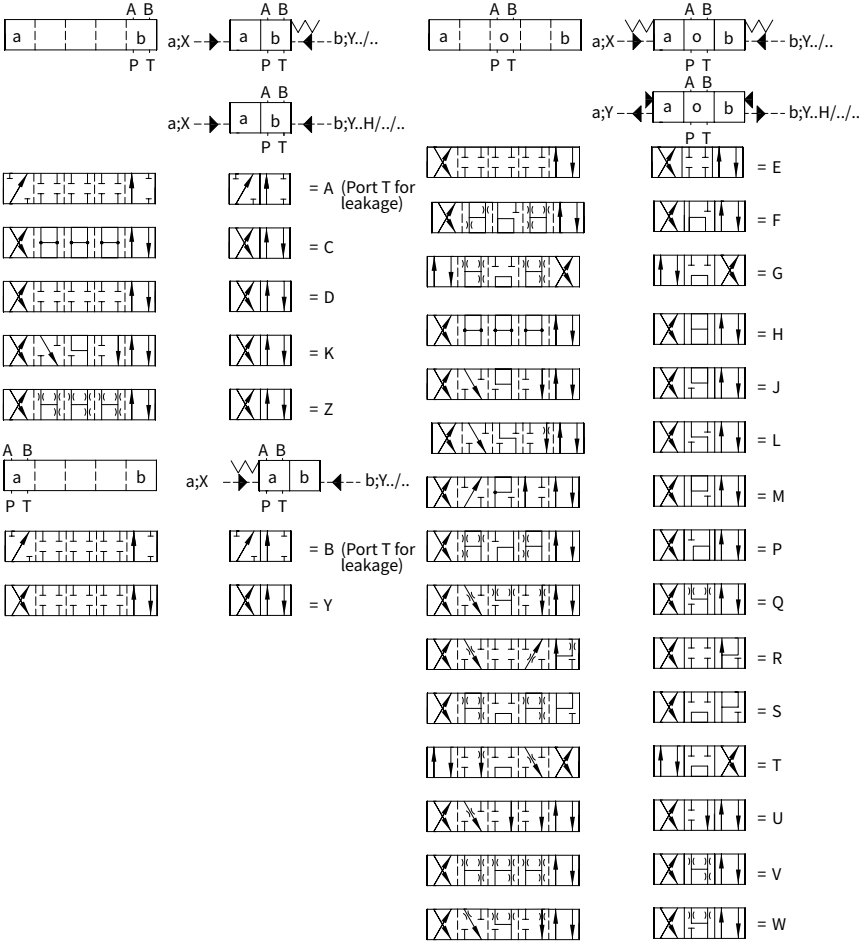
Additional device code
(see WEH)
(not for size 10)

No code = NBR seals
V = FKM seals

Further details
in clear text

Notes:
1. All control oil are external supply and external drain.
2. Control pressure in port X and port Y is not allowed to exceed 250 bar.

Symbols



Connection dimensions and sub-plate

1. The same size of type WH and type WEH share same installation, connection dimensions and sub-plate.
2. Regarding dimention, only the height of type WH is different from that of type WEH. For type WH, there is a cover (height:12mm) on top of the main valve. Also switching time adjusted can be topped with a height of 40mm. Details see WEH.