EYDAD INTERNATIONAL

DESCRIPTION

HYDAC 4/2- and 4/3- directional spool valves of the 4WMH series are directional valves for oil hydraulic systems, which are used for direction control of oil flow.

The valve is operated by a hand lever.

The mechanism pushes the control piston of the valve to the respective position to obtain the desired flow paths.

4/2 and 4/3-directional spool valves lever operated 4WMH 6 to 10

FEATURES

- Interface to ISO 4401
- Versions with two or three switching positions, with return spring or mechanical detent
- Valve body with high stability and low flow losses
- NG6: Position of the hand lever can be turned by 180°



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MODEL CODE

<u>Type</u>

Manually operated directional valves with hand lever and 4 main ports

<u>4WMH 6 E – F 01 / V</u>

Nominal size (NG) 6, 10

Spool types see page 3

Design Not specified = with return spring F = withoud spring, with detent

Series 01 = determined by the manufacturer

Sealing material V = FKM (standard)

N = NBR

ACCESSORIES

Part no.
3492432
3120269
4348706
4348705
4312231
3524314

EN **5.227.4**. 0_05.22

SPOOL TYPES / SYMBOLS

4/2- DIRECTIONAL SPOOL VALVES

Туре	Symbol with intermediate position				
D					
D-F					
С					
C-F					
EA					
EA-F					
НА					
HA-F					
JA					
JA-F					
GA					
GA-F					

4/3- DIRECTIONAL SPOOL VALVES			
Туре	Symbol with intermediate position		
E			
E-F			
н			
H-F			
J			
J-F			
G			
G-F			

EN **5.227.4**. 0_05.22

FUNCTION

The manually operated directional spool valve of the 4WMH series are used for directional control of flow.

The valves consists of a valve casing (1) and a valve piston (2).

Depending on the version, the valve is equipped with a return spring or a detent (option F).

The valve piston is held in its initial position by the return spring. The valve is operated by a hand lever (3).

The mechanism pushes the control piston of the valve to the respective position to obtain the desired flow paths.

The hand lever is locked with option F, so the is held in its position.

If the lever is returned after actuation, the piston is moved back to its initial position by the return spring.

SECTION VIEW



TECHNICAL DATA *

General specifications					
		Nominal size			
		6	10		
MTTFd		150 - 1200 years, according to DIN EN ISO 13849-1:2016; Table C.1, confirmation of ISO 13849-2:2013; Tables C.1 and C.2			
Ambient temperature	[°C]	-20 to +60			
Installation position	istallation position				
Weight	[kg]	1,3	4,2		
Hydraulic specifications					
		Nominal size			
		6	10		
Operating pressure port A, B, P	[bar]	350	320		
Operating pressure port T		210	160		
Flow range	[l/min]	see Performance or	n page 5		
Operating fluid	Hydraulic oil to DIN 51524 part 1, 2 and 3				
Viscosity range	[mm²/s]	10 to 400 (25 is rec	ommended)		
Permitted contamination level	class 20/18/15 to ISO 4406				
*SEPPE Fail Build instructions for Val	hure 53.000				
Sealing material	FKM (standard), NBR				

PERFORMANCE

The performance curves represent the valve's areas of application for different spool types depending on flow rate and operating pressure. The values are taken according to ISO 6403 standard, with mineral oil viscosity of 36 mm²/s, at an operating temperature of 50 °C and filters according to ISO4406:1999 class 18/16/13.

HINT

The values in the diagrams are valid for normal operation. The performance limits can be reduced considerably, e.g. if a 4-directional valve with blocked port A or B is operated.

NG6



Performance limits

measured at v = 36 mm²/s, T= 50 °C



Performance assignment to the associated spools:

		Performance				
spool	P-A	P-B	A-T	B-T	P-T	limits (P-A/P-B)
E, EA	2	2	3	3		1
H, HA	1	1	3	3	(2)	1
J, JA	3	3	1(3)	1(3)		1
G, GA	4	4	4	4	(3)	2
D	3	3	3	3		1
С	2	2	2	2		1
(*), value in basic position						

(*): valve in basic position

NG10

Pressure drop

measured at $v = 36 \text{ mm}^2/\text{s}$, T= 50 °C





Performance limits measured at v = 36 mm²/s, T= 50 °C



Performance assignment to the associated spools:

		Performance				
spool	P-A	P-B	A-T	B-T	P-T	limits (P-A/P-B)
E, EA	2	2	1	1		1
H, HA	3	3	1	1	(5)	1
J, JA	3	3	2(6)	2(6)		1
G, GA	1	1	2	2	(5)	2
D	3	3	2	2		1

(*): valve in basic position

DIMENSIONS NG6





Mounting screws: (not included in delivery) DIN EN ISO 4762- M5x30- 8.8 Torque: 5 Nm

4/3-way

4/2-way

P

A



HINT

The valve is supplied with the hand lever pointing orthogonally to the interface. The lever can be turned 180° for different applications.



DIMENSIONS NG10

CETOP 4.2-4-05-320



Mounting screws:

(not included in delivery) DIN EN ISO 4762- M6x40- 8.8 Torque: 8 Nm



4/3-way



4/2-way



HINT

The orientation of the hand lever can not be changed.

Note

The information in this brochure relates to the operating conditions and applications described. For applications not described, please contact the relevant technical department.

All technical details are subject to change without notice.

HYDAC Fluidtechnik GmbH Justus-von-Liebig-Str. D-66280 Sulzbach/Saar Tel: 0 68 97 /509-01 Fax: 0 68 97 /509-598 E-Mail: valves@hydac.com