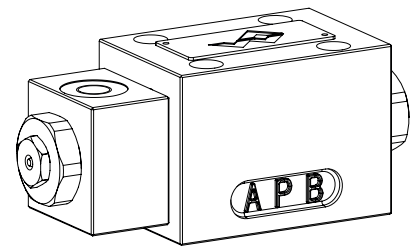


Spool valve

Flange construction

- ◆ hydraulically actuated
- ◆ 4/2-way impulse valve
- ◆ 4/3-way with spring centred mid position
- ◆ 4/2-way with spring reset
- ◆ $Q_{max} = 80 \text{ l/min}$
- ◆ $p_{max} = 350 \text{ bar}$

NG6
ISO 4401-03



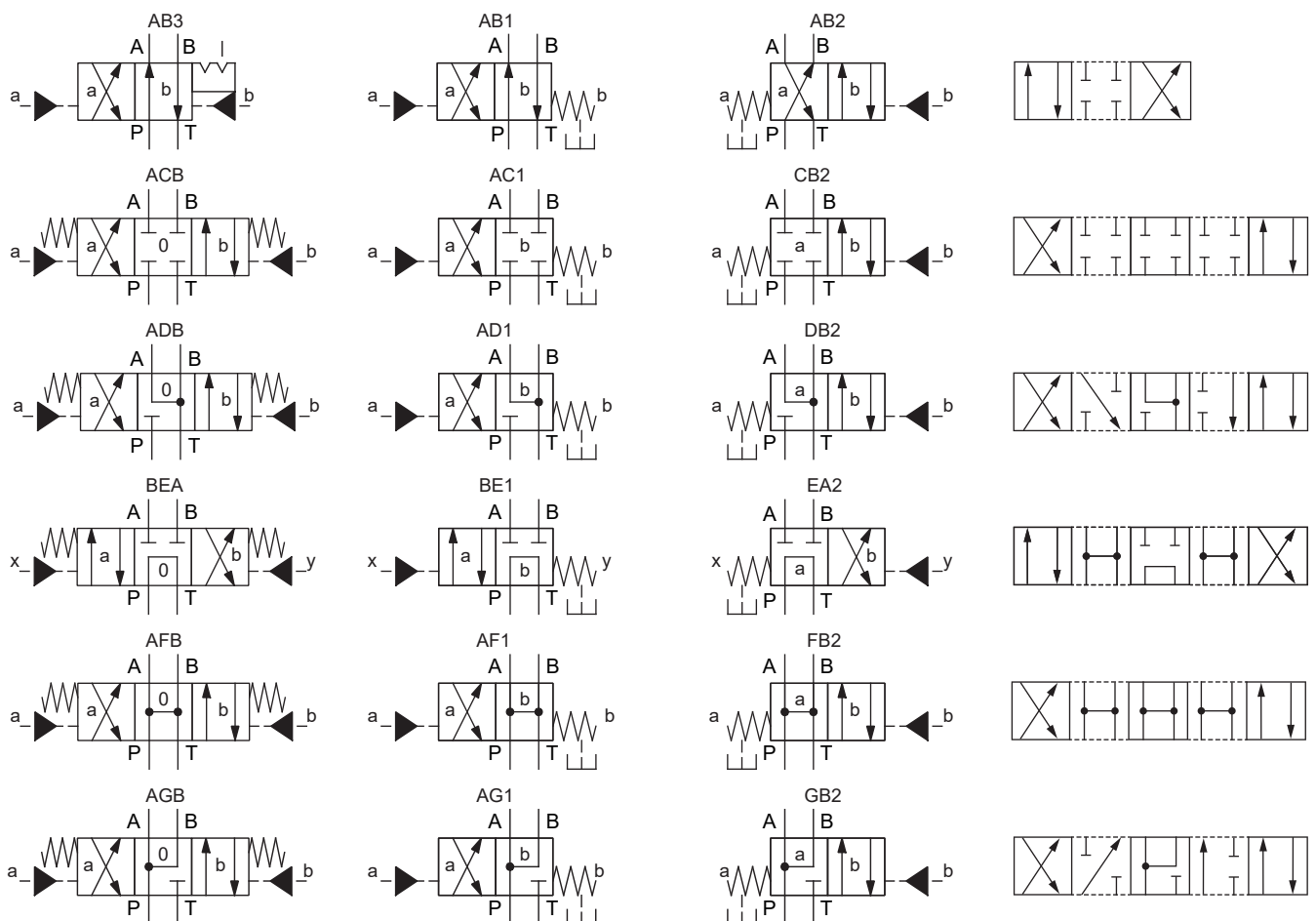
DESCRIPTION

Hydraulically operated spool valve via pilot head with 4 connections in a 5 chamber system. Spool detented or with spring reset. Without actuation, the spool is held in the center position by the spring (4/3), or switched back to the offset position (4/2). With the detent, the spool is held in the last switching position selected.

APPLICATION

Spool valves are mainly used for controlling direction of movement and stopping of hydraulic cylinders and motors.

SYMBOL



TYPE CODE

Spool valve, direct operated		WF A F A06 -	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	#	<input type="text"/>
Hydraulically actuated via control head									
Flange construction									
International standard interface ISO, NG6									
Designation of symbols acc. to table									
Sealing material	NBR FKM (Viton) NBR 872	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
			D1						
			y-Z604						
Surface protection	Standard Zinc-nickel	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
			K8						
Design index (subject to change)									

1.7-33

GENERAL SPECIFICATIONS

Designation	4/2-, 4/3-spool valve
Construction	Direct operated
Mounting	Flange construction
Nominal size	NG6 according to ISO 4401-03
Actuation	Hydraulically operated
Ambient temperature	-25...+70 °C
Weight	1,25 kg (1 actuation) 1,5 kg (2 actuations)
MTTFd	150 years

ACTUATION

Actuation	Hydraulically operated
Execution	Actuation
Pilot pressure	$p_{V \min} = 50 \text{ bar} > p_T$ $p_{V \max} = 160 \text{ bar}$ (with HB or HN) $p_{V \max} = 280 \text{ bar}$ (with HB0)
Control volume	$V = 0,06 \text{ cm}^3$

HYDRAULIC SPECIFICATIONS

Working pressure	$p_{\max} = 350 \text{ bar}$
Tank pressure	$p_{T \max} = 200 \text{ bar}$
Maximum volume flow	$Q_{\max} = 80 \text{ l/min}$, see characteristics
Leakage oil	See characteristics
Fluid	Mineral oil, other fluid on request
Viscosity range	12 mm ² /s...320 mm ² /s
Temperature range fluid	-25...+70 °C (NBR) -20...+70 °C (FKM)
Contamination efficiency	Class 20 / 18 / 14
Filtration	Required filtration grade $\beta_{10...16} \geq 75$, see data sheet 1.0-50

MANUAL OVERRIDE

HB4,5 as standard
 Optionally: HN (K), HB0 (plugged)
 → see data sheet 1.1-311

SURFACE TREATMENT

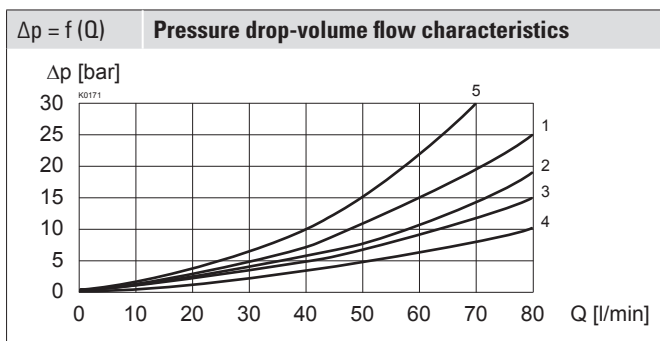
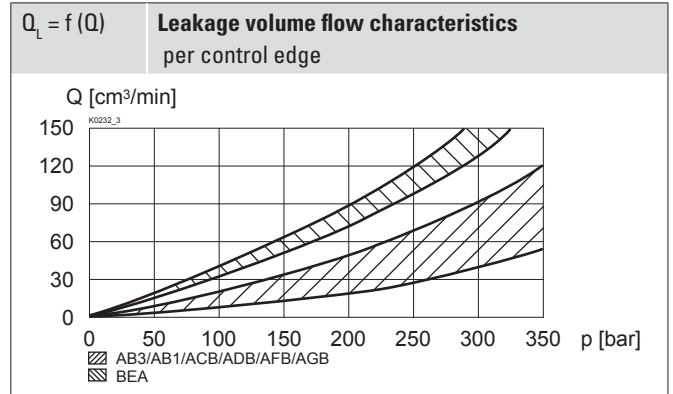
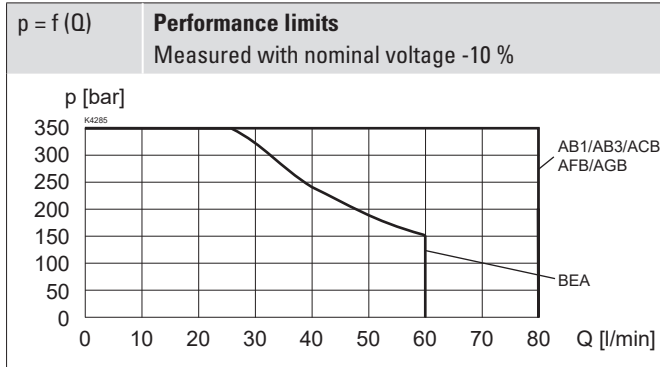
Standard:
 -The valve body is painted with a two component paint
 -The hydraulic actuation and the screw plug are zinc-nickel coated

Optionally (K8):
 -All external parts are zinc-nickel coated
 ISO 9227 (800 h) salt spray test

SEALING MATERIAL

NBR or FKM (Viton) as standard, choice in the type code

PERFORMANCE SPECIFICATIONS

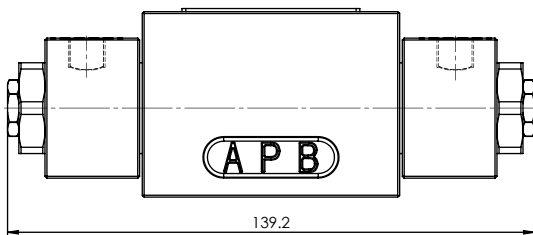
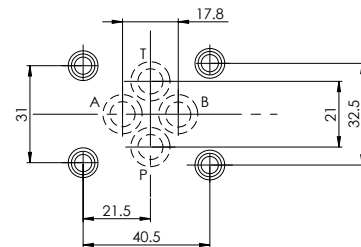
 Oil viscosity $\nu = 30 \text{ mm}^2/\text{s}$


Symbol	Volume flow direction				
	P - A	P - B	P - T	A - T	B - T
AB1 / AB2 / AB3	2	2	-	1	1
ACB / AC1 / CB2	2	2	-	1	1
ADB / AD1 / DB2	2	2	-	3	3
BEA / BE1 / EA2	2	2	5	2	2
AFB / AF1 / FB2	4	4	-	3	3
AGB / AG1 / GB2	4	4	-	1	1

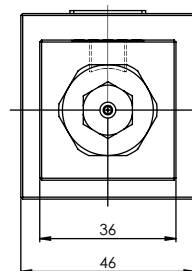
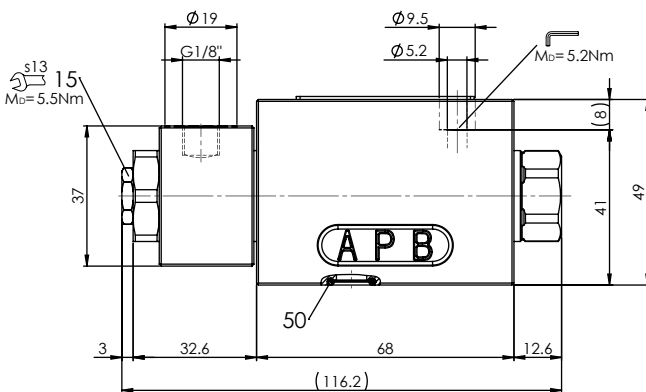
DIMENSIONS

4/3-way valve (spring centring)

4/2-way valve (impulse)


HYDRAULIC CONNECTION


4/2-way valve (spring reset)



PARTS LIST

Position	Article	Description
30	239.2210	Socket head screw M20 x 1
-	251.2220	Seal kit WF.FA06
Seal kit consisting of		
50	O-ring	ID 9,25 x 1,78

INSTALLATION NOTES

Mounting type	Flange mounting 4 fixing holes for socket head screws M5 x 50
Mounting position	Any, preferably horizontal
Tightening torque	Fixing screws $M_0 = 5,2 \text{ Nm}$ (screw quality 8.8, zinc coated)

Note!


The length of the fixing screw depends on the base material of the connection element.

STANDARDS

Mounting interface	ISO 4401-03
Contamination efficiency	ISO 4406

ACCESSORIES

Fixing screws	Data sheet 1.0-60
Threaded subplates	Data sheet 2.9-30
Multi-station subplates	Data sheet 2.9-60
Horizontal mounting blocks	Data sheet 2.9-100
Technical explanations	Data sheet 1.0-100
Filtration	Data sheet 1.0-50