

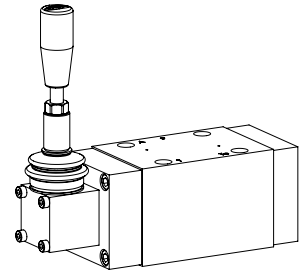
Poppet valve

Flange construction

- ◆ hand operated
- ◆ 2/2-, 3/2- und 3/4-way
- ◆ normally open and normally closed
- ◆ $Q_{max} = 80 \text{ l/min}$
- ◆ $p_{max} = 350 \text{ bar}$

NG10

ISO 4401-05



DESCRIPTION

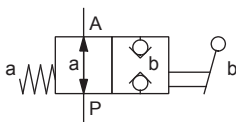
Direct operated 2/2-, 3/2 and 3/4-way poppet valve in flange construction. By means of the hand lever, the poppet valve spool is opened or closed acting against the spring. Due to the poppet spool construction with pressure compensation on both sides, the flow through the valve is possible in both directions. The seat spool guide is sealed by means of an O-ring. The metallic sealing seat closes the valve virtually leak free.

APPLICATION

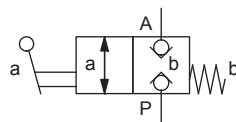
Poppet valves are used where tight closing functions of the valve are essential like leakage-free load holding, clamping or gripping.

SYMBOL

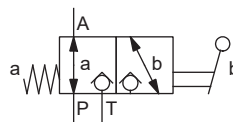
AH22100b



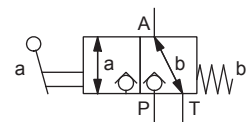
AH22101a



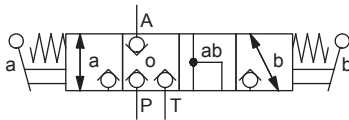
AH32100b



AH32101a



AH3410



TYPE CODE

2/2 or 3/2 way execution

3/4 way execution

A H ☐ 2 10 ☐ - ☐ # ☐
A H 3 4 10 - ☐ # ☐

International standard interface ISO

Hand lever

2 way (connections)

☐ 2

3 way (connections)

☐ 3

2 switching positions

4 switching positions

Nominal size 10

Normally closed

Normally open

Hand lever on A-side

Hand lever on B-side

☐ 1a

☐ 0b

Sealing material

NBR

☐

FKM (Viton)

☐ D1

Design index (subject to change)

1.11-5160

GENERAL SPECIFICATIONS

Designation	2/2-, 3/2- and 3/4-way poppet valve
Construction	Direct operated
Mounting	Flange construction
Nominal size	NG10 according to ISO 4401-05
Actuation	Hand operated
Ambient temperature	-25...+70 °C (NBR) -20...+70 °C (FKM)
Weight	3,60 kg (2/2- and 3/2-way) 4,60 kg (3/4-way)
MTTFd	150 years

HYDRAULIC SPECIFICATIONS

Working pressure	$p_{max} = 350$ bar
Maximum volume flow	$Q_{max} = 80$ l/min, see characteristic
Volume flow direction	Any (see characteristic)
Leakage oil	Seat tight, max. 0,05 ml / min (approx. 1 drop / min) at 30 cSt
Fluid	Mineral oil, other fluid on request
Viscosity range	12 mm ² /s...320 mm ² /s
Temperature range fluid	-20...+70 °C
Contamination efficiency	Class 20 / 18 / 14
Filtration	Required filtration grade $\beta_{10...16} \geq 75$, see data sheet 1.0-50

ACTUATION

Actuation	Hand lever
Actuation angle	$\alpha_b = 11^\circ$
Actuation force	$F_b = 20 - 120$ N (depending on flow direction and pressure)

STANDARDS

Mounting interface	ISO 4401-05
Contamination efficiency	ISO 4406

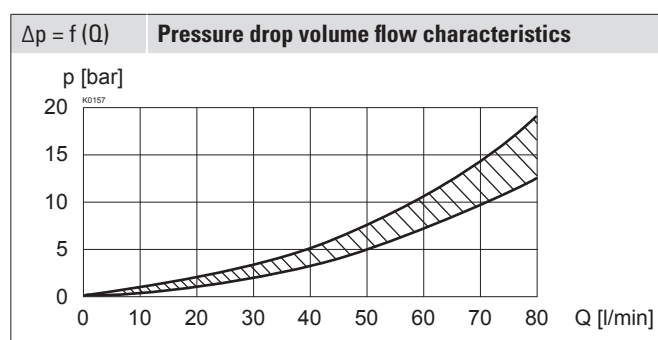
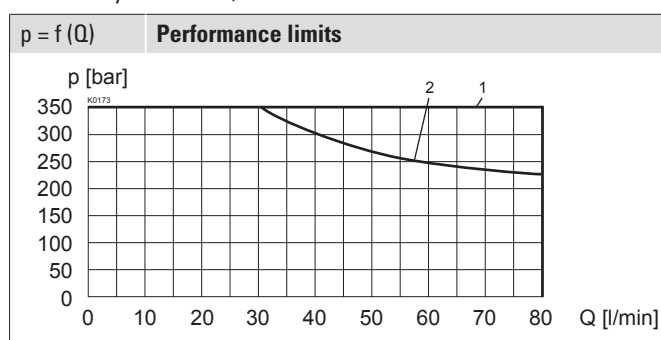
ACCESSORIES

Fixing screws	Data sheet 1.0-60
Threaded subplates	Data sheet 2.9-40
Multi-station subplates	Data sheet 2.9-70
Module type manifold blocks	Data sheet 2.9-110
Technical explanations	Data sheet 1.0-100
Filtration	Data sheet 1.0-50

SURFACE TREATMENT

- ◆ The valve body is painted with a two component paint
- ◆ The hand lever housing, the screws and the cover are zinc coated

PERFORMANCE SPECIFICATIONS

Oil viscosity $\nu = 30$ mm²/s


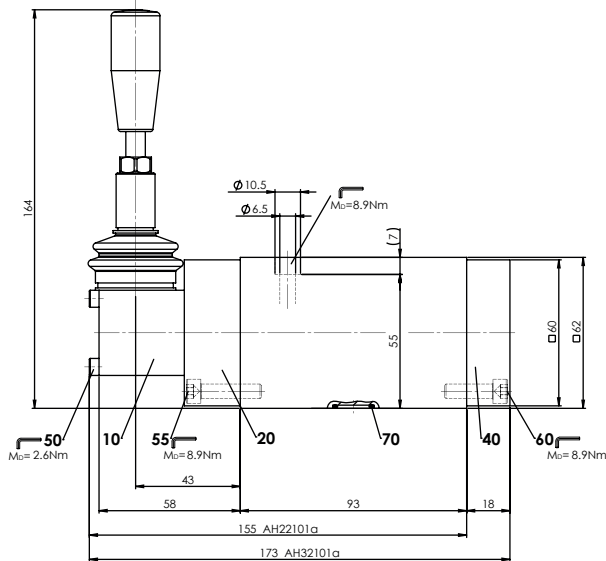
Type	Flow direction			
	P - A	A - T	A - P	T - A
AH22101a	1	-	1	-
AH22100b	1	-	2	-
AH32101a	1	2	1	1
AH32100b	1	1	2	1
AH3410	1	1	1	1

VALVES INSTALLED

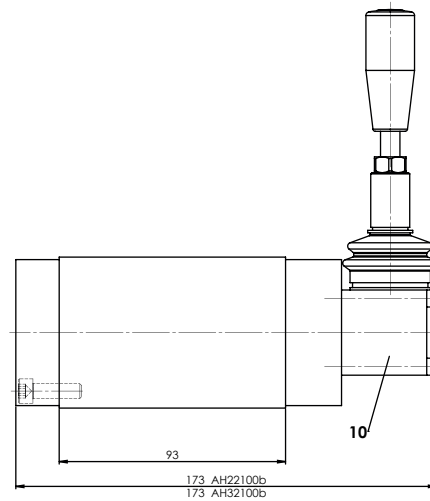
The central functioning element is the poppet valve cartridge NG10, data sheet 1.11-2040.

DIMENSIONS

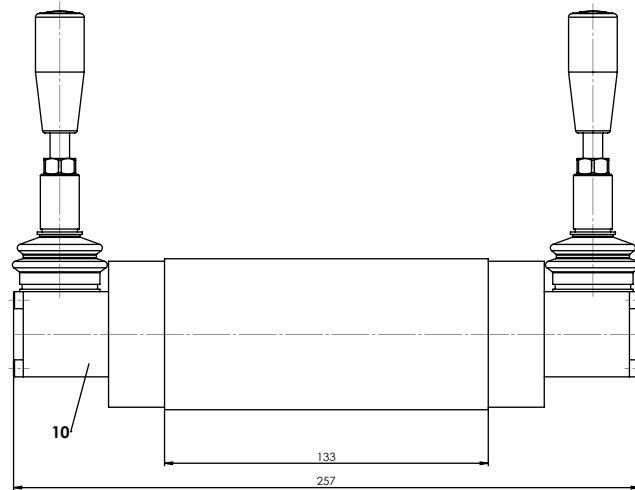
3/2-; 2/2-way



3/2-; 2/2-way



3/4-way



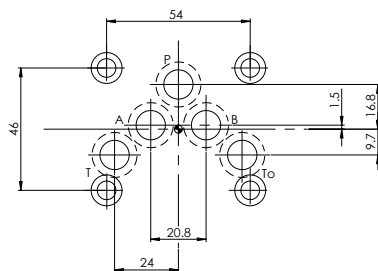
PARTS LIST

Position	Article	Description
10	253.2000	Hand control head BHII
20	074.2813	Flange square
40	059.2200	Cover
50	246.1140	Socket head screw M4 x 40 DIN 912
55	246.3125	Socket head screw M6 x 25 DIN912
60	246.3121	Socket head screw M6 x 20 DIN 912
70	160.2140	O-ring ID 14,00 x 1,78 (NBR)
	160.6141	O-ring ID 14,00 x 1,78 (FKM)

SEALING MATERIAL

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

HYDRAULIC CONNECTION



INSTALLATION NOTES

Mounting type	Flange mounting 4 fixing holes for socket head screws M5 x 65
Mounting position	Any, preferably horizontal
Tightening torque	Fixing screws $M_0 = 8,9 \text{ Nm}$ (quality 8.8, zinc-coated)

Note!



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