

Shut-off valves type DA and EA

Pressure $p_{\max} = 700$ bar
Flow $Q_{\max} = 150$ lpm

1. General information

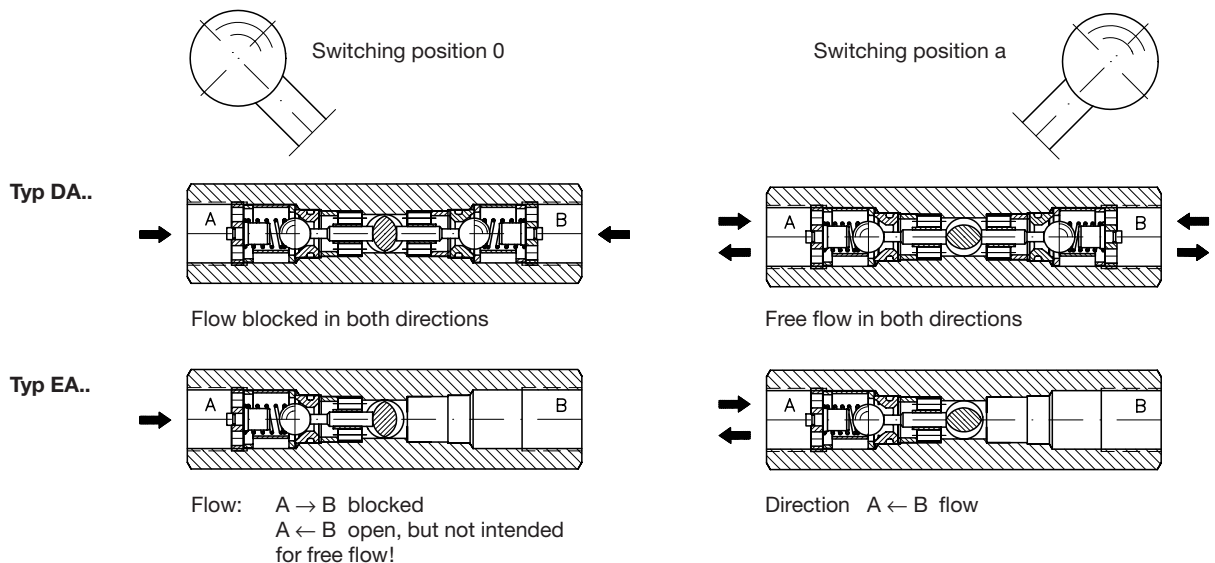
These 2/2-way directional seated valves are manually actuated and serve to block (zero leakage) the flow in one or both directions. They are mounted directly in the piping of hydraulic circuits.



2. Available versions, main data

Version	Coding, size and Symbols shut-off valves		Pressure p_{\max} (bar)	Flow Q_{\max} (lpm)	Tapped ports A and B DIN ISO 228/1 (BSPP)
	Double acting	Single acting			
Standard, control lever with female thread M8 at the shaft end	DA 2	EA 2	700	60	G 3/4
Control lever with cross drilling $\varnothing 3$ at the shaft end	DA 2L	EA 2L			
Actuation shaft without hand lever going through on both sides	DA 2B	EA 2B			
Standard, actuation shaft with female thread M8 at the shaft end	DA 3	EA 3	500	150	G 1

Schematic drawing



3. Further characteristic data

Design	Seated ball valve	
Material	Steel, internal functional parts hardened and ground, valve ball made from bearing steel quality	
Body surface	Zinc galvanized	
Mounting	D(E)A 2..	in the piping
	D(E)A 3	in the piping or via thread M8, see dimensional drawing (sect. 4)
Installation position	D(E)A 2..	level, actuation lever up
	D(E)A 3	arbitrary; level if vibrations may occur, actuation levers up
Actuation forces and moments	max. force at the end of the actuation lever with 500 bar: DA 2.. approx. 75 N DA 3 approx. 300 N (EA.. approx. 60%) max. moment with 500 bar: DA 2.. approx. 15 Nm; DA 3 approx. 60 Nm (EA.. approx. 60%)	

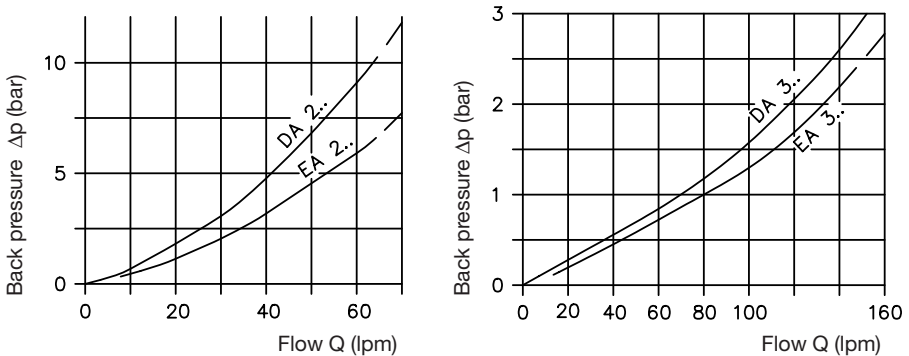
Static overload capacity 2.0 x p_{max}

Pressure fluid Hydraulic oil conforming DIN 51524 part 1 to 3: ISO VG 10 to 68 conforming DIN 51519.
Viscosity limits: min. approx. 4, max. approx. 1500 mm²/s;
opt. operation approx. 10... 500 mm²/s.
Also suitable are biologically degradable pressure fluids types HEPG (Polyalkylenglycol) and HEES (synth. Ester) at service temperatures up to approx. +70 °C.

Temperatures Ambient: approx. -40 ... +80 °C
Fluid: -25 ... +80°C, note the viscosity range !
Permissible temperature during start: -40°C (observe start-viscosity!), as long as the service temperature is at least 20K higher for the following operation.
Biologically degradable pressure fluids: Observe manufacturer's specifications. By consideration of the compatibility with seal material not over +70 °C.

Δp-Q-curves

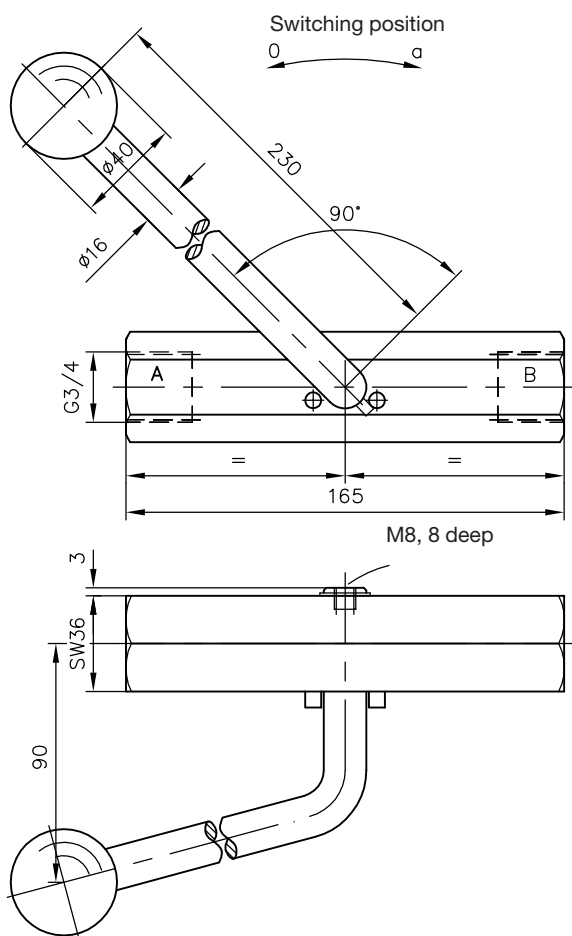
Oil viscosity during tests approx. 53 mm²/s



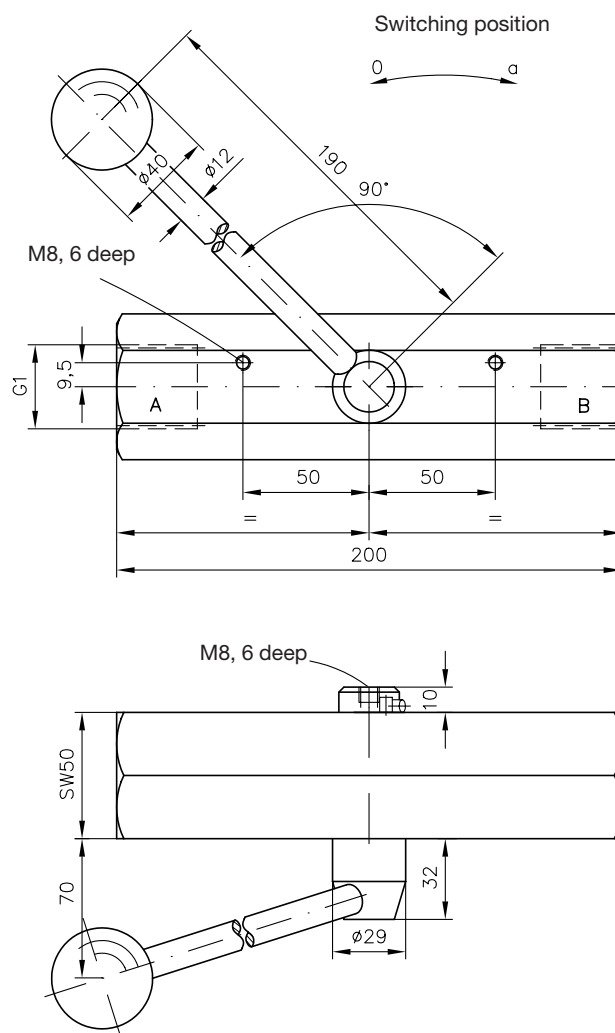
Mass (weight)	Type DA 2(L)	= approx. 1.5 kg	Type EA 2(L)	= approx. 1.4 kg
	DA 2B	= approx. 1.3 kg	EA 2B	= approx. 1.3 kg
	DA 3	= approx. 3.2 kg	EA 3	= approx. 3.0 kg

4. Unit dimensions

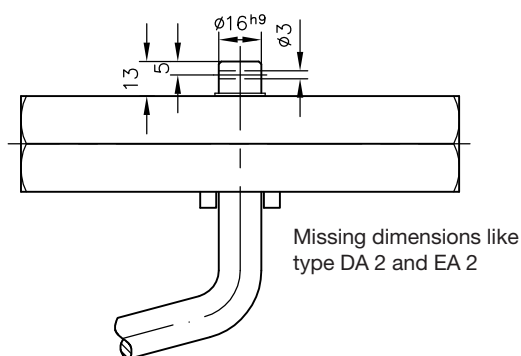
Type DA 2 and EA 2



Type DA 3 and EA 3

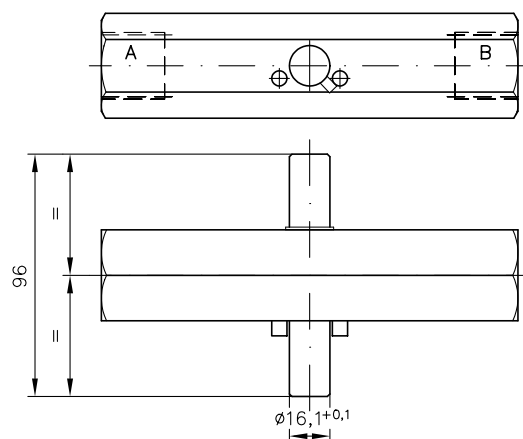


Type DA 2L and EA 2L



Missing dimensions like
type DA 2 and EA 2

Type DA 2B and EA 2B



Missing dimensions like type DA 2 and EA 2

All dimensions in mm and subject to change without notice!