

Lifting/lowering valves type HSV

The lifting/lowering valves type HSV are preferentially used for controlling lifting equipment with single-acting cylinders. The valve block combines the functions of a 2/2-way directional seated valve with solenoid actuation for lowering the raised load. It is optionally available with an adjustable throttle to limit the lowering speed or a 2-way flow control valve to guarantee the lowering speed is as load-independent as possible. A pressure-limiting valve is incorporated to limit the permissible load. An additionally installed check valve prevents uncontrolled lowering of the load. Flange-mounting on self-manufactured connection plates is possible.

Features and benefits:

- Optimal control of lifting and lowering function
- High pressures up to 400 bar
- Zero leakage to prevent unwanted lowering of loads and platforms
- Integrated overpressure protection

Intended applications:

- Cranes and lifting equipment
- Materials handling
- Road vehicle construction
- Mining machinery



Nomenclature:	Valve combination consisting of: <ul style="list-style-type: none"> ■ 2/2-way directional seated valve, solenoid actuated ■ Pressure-limiting valve ■ Check valve optional ■ Throttle or 2-way flow control valve
Design:	Individual valve for pipe connection
Actuation:	Solenoid
p_{max}:	315 ... 400 bar
Q_{max}:	20 ... 120 lpm

Design and order coding example

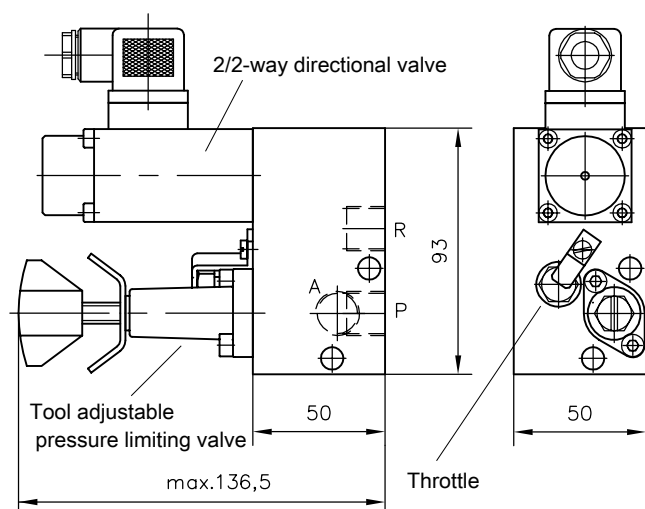
HSV41	- R1	- R-150	- G24
			Solenoid voltage
			12V DC, 24V DC, 110V AC, 230V AC
			HSV 21 and HSV 22 version conforming ATEX
		Pressure limiting valve	Manually or tool adjustable, pressure setting in bar
	Function		
Basic type, size	Type HSV, size 2, 4, 6 and 7		

Function

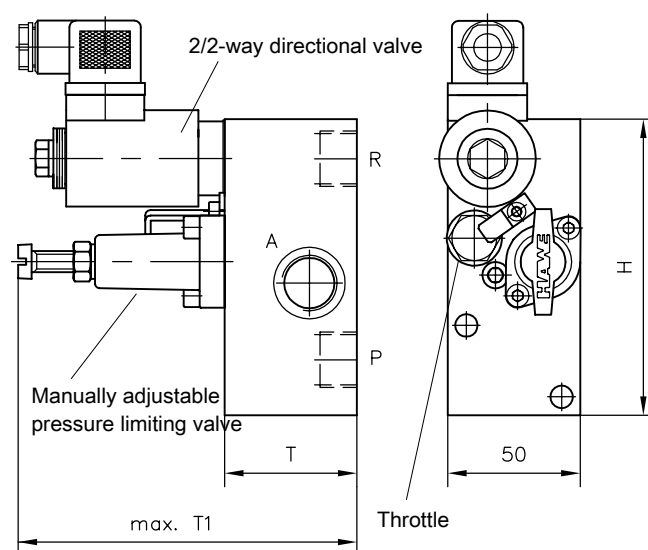
	With throttle		Without throttle		With/without throttle	With 2-way flow control valve
	R 1	R 2	R 3	R 4	S 1 ... S 4	R 6
HSV 21 HSV 22 HSV 41 HSV 61 HSV 71						

General parameters and dimensions

HSV 21 and HSV 22



HSV 41 and HSV 71



	Q_{\max} [lpm]	p_{\max} [bar]	Ports (BSPP)		Dimensions [mm]			m [kg]
			P	A, R	H	T	T1	
HSV 21	20	315	G 3/8	G 3/8	see illustration			2.2
HSV 22	30	315	G 3/8	G 1/2	see illustration			2.2
HSV 41	40	400	G 1/2	G 1/2	112	50	140	2.2
HSV 61	60	350	G 1/2	G 1/2	100	63	166.5	2.5
HSV 71	120	315	G 3/4	G 3/4	100	80	160	3.1

Associated technical data sheets:

- Lifting/lowering valves type HSV, HZV: [D 7032](#)

Plugs:

- With LEDs or to support the EMV etc.: [D 7163](#)
- With economy circuit: [D 7813](#), [D 7833](#)