


KVOD solenoid valves are designed for small hydraulic lifts operating at speeds up to 0.16 m/s (32 fpm) depending on the valve selected. The smooth and accurate ride characteristics in both directions, render it highly suitable for industrial lifts, cargo platforms and other vertical material movement applications.

Flow Range:	5-80 l/min (1.3-21 US gpm) - see flow pressure charts	Pressure Range:	8-100 bar (116-1450 psi)
Oil Viscosity:	25-60 cSt. at 40°C (104°F)	Burst Pressure:	500 bar (7251 psi)
Solenoids AC:	24 V/1.8 A, 42 V/1.0 A, 110 V/0.5 A, 230 V/0.18 A, 50/60 Hz	Max. Oil Temperature:	70°C (158°F)
Solenoids DC:	12 V/2.1 A, 24 V/1.1 A, 42 V/0.6 A, 80 V/0.3 A, 125 V/0.25 A, 196 V/0.14 A.		
Ports:	P Pump, Z Cylinder and T Tank all G $\frac{1}{2}$ "		
Insulation Class, AC and DC:	IP 68		



Speeds max. (EN code)

 <p>1.1 kg</p>	Up	One up speed, 0.16 m/s (32 fpm) max. Up start has built-in damping. Up stop has no damping (pump stops).
	Down	One down speed, 0.16 m/s (32 fpm) max. Down start has adjustable damping. Down speed is adjustable. Down stop has built-in damping.



Warning: Only qualified personnel should adjust or service valves. Unauthorised manipulation may result in injury, loss of life or damage to equipment. Prior to servicing internal parts, ensure that the electrical power is switched off, cylinder line is closed and residual pressure in the valve is reduced to zero.

Valves are already adjusted and tested. Check electrical operation before changing valve settings. Test that the correct solenoid is energised, by removing the nut and raising the solenoid slightly to feel pull.

Adjustments UP

1. Up Bypass: When the pump is started, the unloaded car should remain stationary at the floor for a period of about 1 second before starting upwards. The length of this delay is according to the setting of adjustment 1. 'In' (clockwise) shortens the delay, 'out' (c-clockwise) lengthens the delay.

Up Stop: At floor level, the pump-motor is de-energized. The stop may be abrupt depending on load and speed of approach. No adjustment possible.

S Relief Valve: 'In' (clockwise) produces a higher, 'out' (c-clockwise) a lower maximum pressure setting. After turning 'out', open manual lowering H for an instant.

Important: When testing relief valve, close ball valve gradually.

Adjustments DOWN

6. Down Acceleration: When solenoid D is energized, the car will accelerate downwards according to the setting of adjustment 6. 'In' (clockwise) provides a softer down acceleration, 'out' (c-clockwise) a quicker acceleration. Pre-adjustment: 6 should be turned all the way in and then solenoid D energized. Turn 6 slowly back out until the car accelerates downwards.

9. Down Speed: With solenoid D energized as above, the down speed of the car is according to the setting of adjustment 9. 'In' (clockwise) provides a slower down speed, 'out' (c-clockwise) a faster down speed.

Down Stop: At floor level, solenoid D is de-energized causing the car to stop. No adjustment necessary.

H Manual Lowering 'out' (c-clockwise) allows the car to be lowered by hand.

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GmbH

Designer and Manufacturer of the highest quality control valves & safety components for hydraulic elevators



Control Elements

- D Solenoid 'Down Stop'
- U Bypass Valve
- H Manual Lowering
- V Check Valve

- X Down Valve
- Y Down Level Valve
- F Main Filter
- S Relief Valve

Adjustments UP

- 1 Bypass
- Up Acceleration built-in

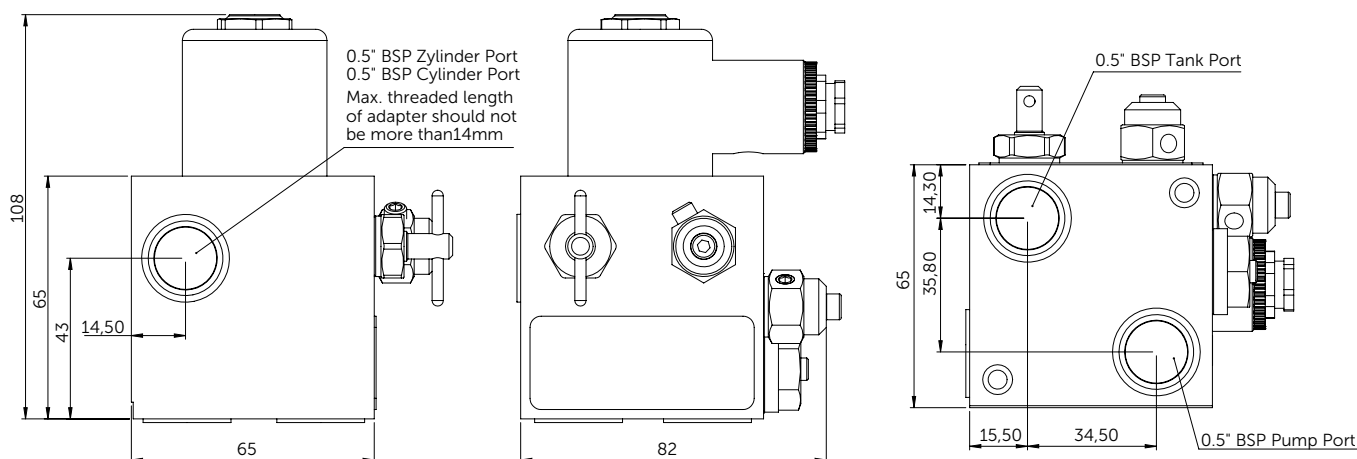
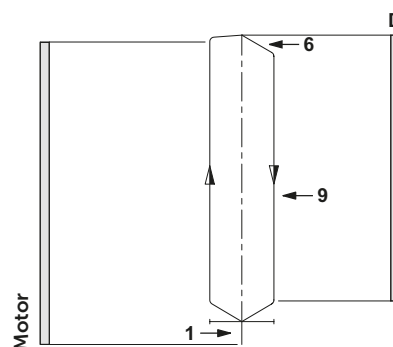
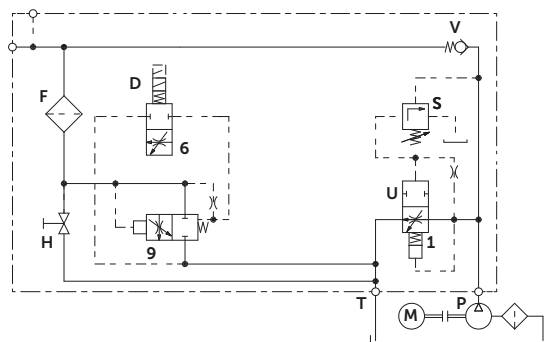
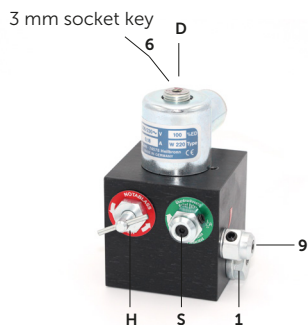
Adjustments DOWN

- 6 Down Acceleration
- 9 Down Levelling Speed
- Down Deceleration built-in

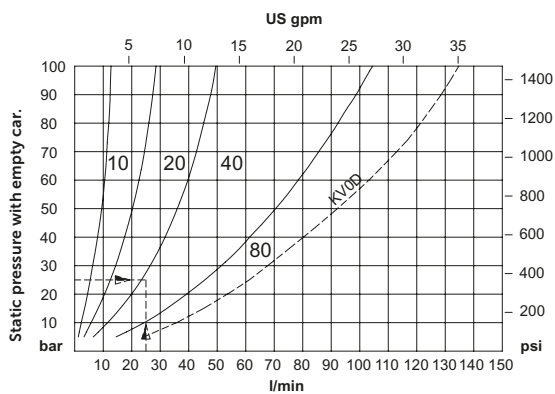
KV0D

Hydraulic Circuit

Electrical Sequence



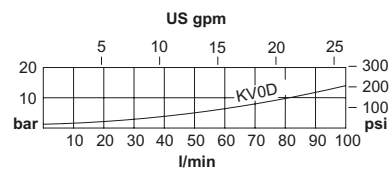
Insert Selection and Down Flow Chart



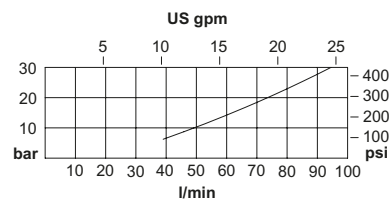
Pump flows above 80 l/min are not recommended

Example order
KV0D, 25 l/min, 25 bar (empty),
220 AC
or: KV0D/40/220 AC

Pressure Drop P - Z



Lowest Relief Pressure



jan 19

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