6114





3/2-way Flipper Solenoid Valve

- Pilot control for water valves
- Direct-acting
- 0 to max. 10 bar
- Low power consumption
- Lateral flange

Type 6402 servo-assisted water valve

Type 6114 is a direct-acting 3/2-way solenoid valve with a PPS housing and media separation. It was developed as a pilot control valve for water valves and can be used between R and B ports also as a 2/2-way valve.

Through the movement between the 2 end positions, the switching element (flipper) seals one of the two opposing valve seats and connects the other to the working port. This movement is caused by the solenoids magnetic field pushing a permanent magnet that is fixed to the flipper element.

On the bistable version (pulse valve) the flipper is held in the terminal position by the force of the permanent magnet. A temporary magnetic field, which is triggered by a pulse, acts against the permanent field and moves the flipper to the second terminal position. A second opposing pulse is required to move the flipper back. In addition to its exceptional performance characteristics, the flipper principle is recognised for its very low wear level.

Circuit function D



3/2-way valve, direct acting, de-energized port B pressurized; on-off or pulse valve

Technical data	
Body materials	PPS (Polyphenylensulfid)
Seal material	EPDM (FFKM on request)
Media	Neutral liquids; technical vacuum
Media temperature	0 bis +50°C (EPDM) +5 bis +55°C (FFKM)
Ambient temperature	0 bis +55°C
Port connection	Lateral flange
Electrical connection	250mm flying lead with XYM plug (other connections on request)
Operating voltage	6V/DC ¹⁾ 24V/DC ¹⁾ on request
Voltage tolerance	± 10% standard version + 10% clocked version
Nominal power	1 W
Switching function	Bistable (pulse) Monostable on request
Duty cycle	Continuous operating, 100% ED
Installation	As required, 5mm minimum distance to ferromagnetic materials
Insulation class	3 acc. VDE 0580
Protection class	IP 65
Cycling rate	appr. 1000/min
Electrical control Pilot control for water valves Clocked version	Pulse duration ≥ 20ms Pulse duration ≥ 10ms
Response times Opening	Measurement at the valve outlet, at 20°C and 6 bar acc. DIN ISO 12238: appr. 10 ms (Pressure rise 0 to 10%)
Closing	appr. 10 ms (Pressure drop 100 to 90%)

¹⁾ Battery voltage; observe polaritiy

Type 6114 can be combined with...



Ordering chart standard version

All valves with seal material EPDM, flying lead and XYM plug, mounting screws and flange seal EPDM



¹⁾ QNn value air [l/min]: measurement with +20°C, 6 bar pressure on the valve input and 1 bar differential pressure

²⁾ Pressure values [bar]: measured as overpressure to atmospheric pressure

Mounting screws: EJOT PT 22x16 A2 for plastic panels; or cylinder head screw Ø2x12 A2 DIN6912

Dimensions [mm]



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