

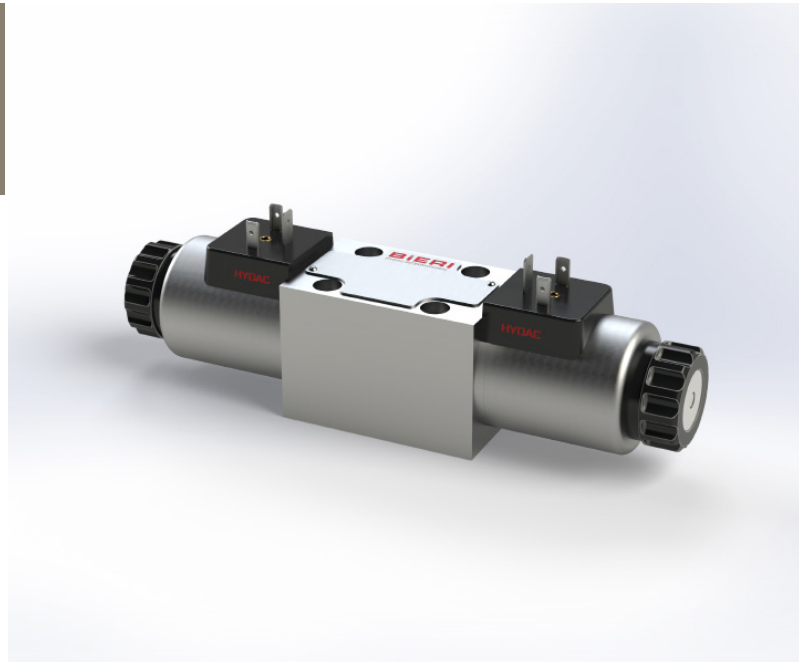
Directional poppet valves with detention

Type WVM-6I-OF

NG 6 ISO
up to 25 l/min, up to **500 bar**

Features

- Directly operated
- Poppet tight
- Good corrosion resistance
- High operational safety and reliable switching
- High duty cycles and long lifetime
- Safe position retention in the de-energised state



Applications

- Controlling of cylinders in higher pressure ranges as full replacement for spool valve technology (especially for poppet tight holding and bending)
- Clamping technology & jig construction
- Machine tools - auxiliary functions
- Forming technology - clamping
- Presses, test benches and systems
- Lifting and transport systems
- Hydraulic tools
- Hydraulics of wind turbines

Design

- Detention for currentless position holding
- Pressure compensated, hardened and specially grinded valve cones
- Manual override
- 3/2 valve with solenoid control
- 360° turnable and exchangeable plug-in coil
- Integrated check valve and orificies available
- Patented functional principle
- Return pressure stop available on request

Technical data

Hydraulic fluid	mineral oil according to DIN 51524 (other fluids on request)
Fluid temperature range	- 20 to 80 °C
Ambient temperature range	- 30 to 50 °C
Viscosity range	5 to 400 mm ² /s
Porting	NG 6 according to DIN 24340 / ISO 4401 / CETOP RP 121 H
Max. operating pressure connection P, A, B	500 bar
Max. operating pressure connection T	70 bar
Max. flow rate	25 l/min
Filtration (recommendation)	according to NAS 1638 class 6 resp. ISO/DIN 4406 17/15/12
Duty cycle DC	100 %
Solenoid voltage (nominal power)	24 VDC (30 W)
Voltage tolerance	+/- 10 %
Switching time	40 - 110 ms
Degree of protection	IP 65 according to EN 60529 / DIN 40050 (or according coil choice)
Weight	1.5 kg with solenoid / 1.2 kg without solenoid
Material	corrosion resistant steel (Solenoid coil: ZnNi-plated (1000 h salt spray test))

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Type code

Example		Additional elements																								
		WV	M	-	6I	-	3	/	2	-	Y	-	OF	-	24	-	V	-	A	10	-	RV	-	A		00
Directional poppet valves																										
Size	500 bar																									
Nominal size	6 ...																									
Connection ISO	... I																									
Number of ports	3																									
Number of positions	2																									
Control functions	See overview "Product information"																									
Detention	OF																									
Control method	0 without solenoid 24 solenoid 24 VDC																									
Seal material	V FKM																									
Connection for orifice	P P-connection (pressure) A A-connection B B-connection T T-connection (tank)*																									
Orifice-Ø	05 0.5 mm 07 0.7 mm 10 1.0 mm 14 1.4 mm 20 2.0 mm																									
Check valve	RV plug in check valve in P-connection																									

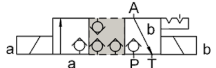
Design
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For internal purposes


Index
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Design revision
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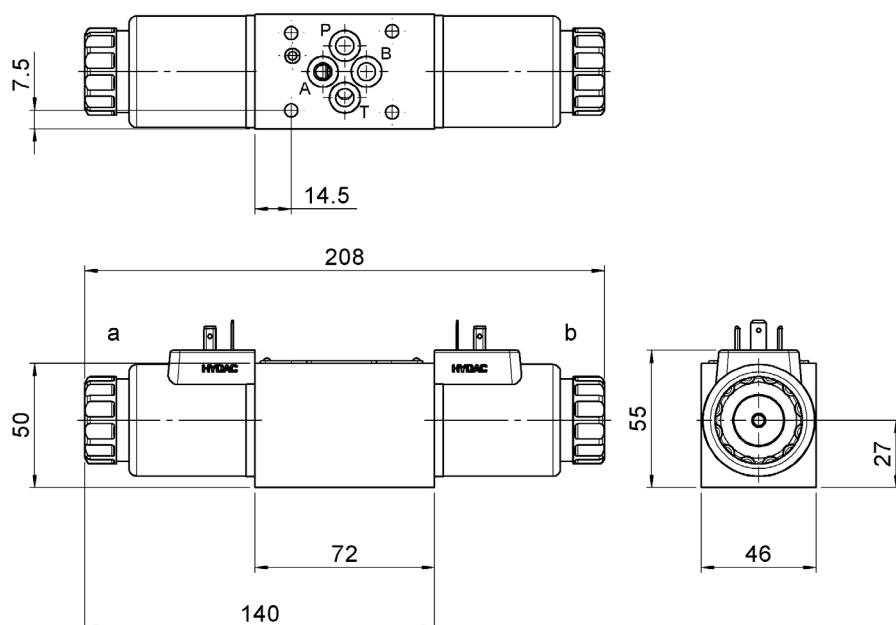
* Safety note: Select orifice with regard to permissible tank pressure!

Product information

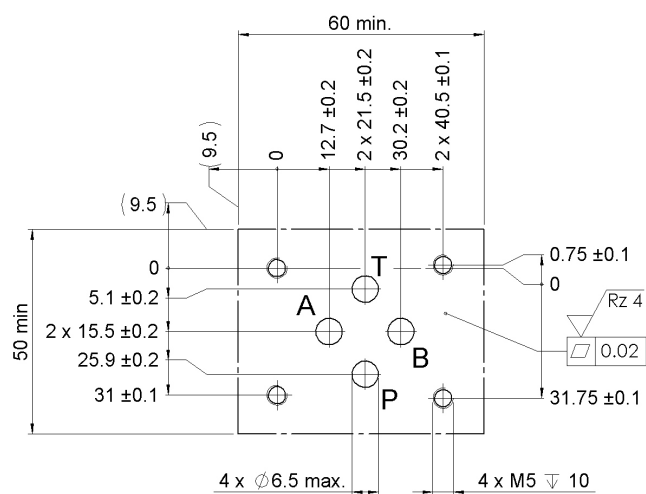
Valve type	3/2
Control function	Y
Part No. without solenoid	4592045
Part No. 24 VDC	4580826
Symbol	

 Usual flow direction

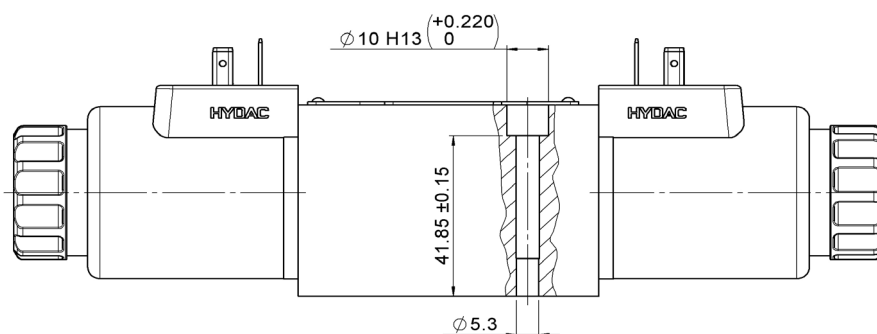
Dimensional drawing



Drilling pattern

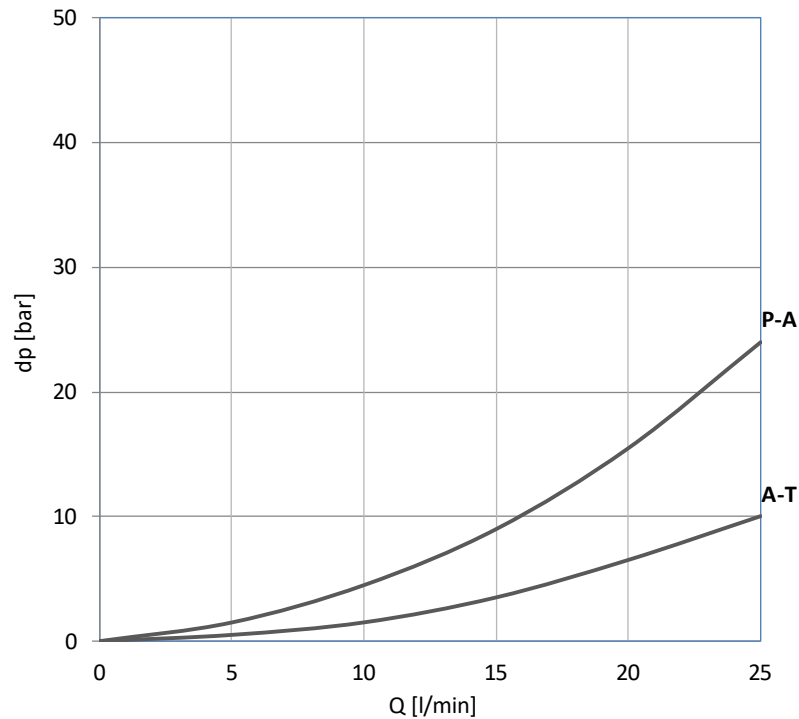


Mounting screws / clamping length

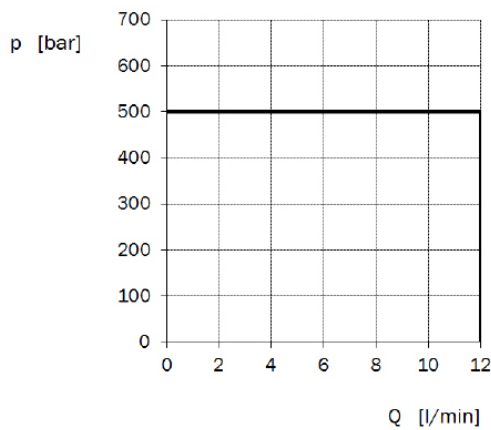


Pressure drop

($\nu = 32 \text{ mm}^2/\text{s}$)



Hydraulic switching capacity



Hydraulic switching capacity at rated voltage and ambient temperature $T_a = 50^\circ \text{C}$

$\nu = 32 \text{ mm}^2/\text{s}$

Applies to all valves (control functions)!

Switch on current I_{ON}

$I_{ON} \geq 0.7 \times I_N$

Switch off current I_{OFF}

$I_{OFF} \leq 0.07 \times I_N$

Switching times

Valve type	Control function	Switching on [ms]*		Switching off [ms]*
		at operating temperature ($0.7 \times I_N$)	cold ($1 \times I_N$)	
3/2	Y	60	40	25

* indicative values

Type WVM-6I-OF

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Accessories

see technical data sheet WVM-6I

Spare parts

see technical data sheet WVM-6I

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The information in this brochure relates to the operating conditions and applications described.

For applications and operating conditions not described, please contact the relevant technical department.

Subject to technical modifications.