

# Directional poppet valves

## Type WV1000

NG 6 Bieri  
up to 25 l/min, up to **1000 bar**

### Features

- Directly operated
- Poppet tight (bidirectional)
- High operational safety and reliable switching
- High corrosion resistance
- All connections can be loaded to the maximum operating pressure
- Replacement of coils without opening of the pressure tight spaces



### Applications

- Portable power units
- Control of cylinders as superior and space-saving alternatives to spool valves which require additional leakage free shutoff valves
- Forming technology - clamping
- Presses, test benches and systems
- Lifting and transport systems
- Hydraulic tools
- Accumulator charging systems
- Seat-tight pilot control of passive and/or active logic valves

### Design

- Patented valve-design
- Pressure compensated design of hardened and specially grinded valve cones
- Strong return springs
- Hidden manual override
- Available as 2/2 directional poppet valve with solenoid actuation
- 360° turnable and exchangeable plug-in coil

### 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 <sup>2</sup> /s
Porting	NG 6 according to Bieri standard
Max. operating pressure connection P, A, B	1000 bar
Max. operating pressure connection T	1000 bar
Max. flow rate	25 l/min, see switching capacity diagram page 5
Filtration (recommendation)	according to NAS 1638 class 6 resp. ISO/DIN 4406 17/15/12
Duty cycle ED	100 %
Solenoid voltage (nominal power)	24 VDC (26.7 W)
Tolerance	+/- 10 %
Switching time	see table on page 5
Degree of protection	IP 65 according to EN 60529 / DIN 40050 (or according coil choice)
Weight	1,25 kg
Material	Corrosion resistant steel Solenoid coil: ZnNi-plated (1000 h salt spray test)

**Type WV1000**

---

NG 6 Bieri  
up to 25 l/min, up to 1000 bar

**Type WV1000**

---

NG 6 Bieri  
up to 25 l/min, up to 1000 bar

**Type WV1000**

---

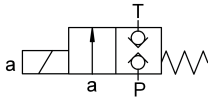
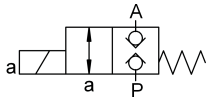
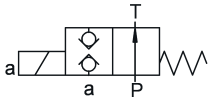
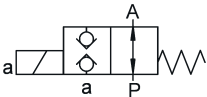
NG 6 Bieri  
up to 25 l/min, up to 1000 bar

## Type code

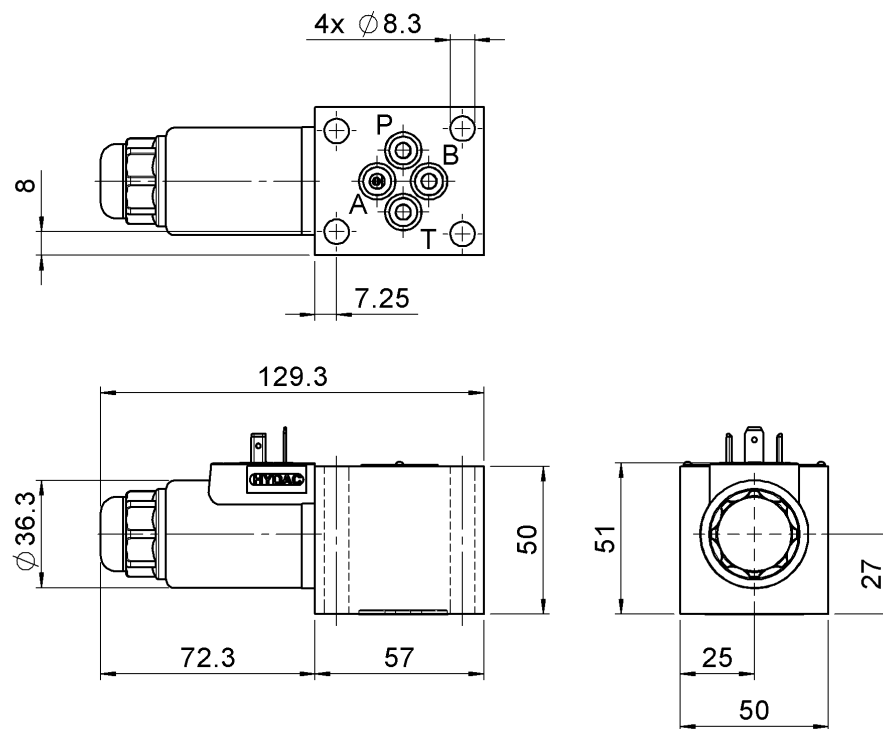
**Example**

<b>Directional poppet valves</b>	<b>Size</b>	<b>Nominal size</b>	<b>Connection Bierl</b>	<b>Number of ports</b>	<b>Number of positions</b>	<b>Control function</b>	<b>Control method</b>	<b>Seal material</b>	<b>Design</b>	<b>Index</b>	<b>Design revision</b>
	1000 bar	6 ...	... B	2	2	see overview „Product information“	24 solenoid 24 VDC	V FKM	00 ... 99 For internal purposes	Please leave blank For internal purposes	

## Product information

Valve type	2/2			
Control function	E4	E2	BE4	BE2
Part No.	4648056	4639646	4648061	4648060
Symbol				

## Dimensional drawing

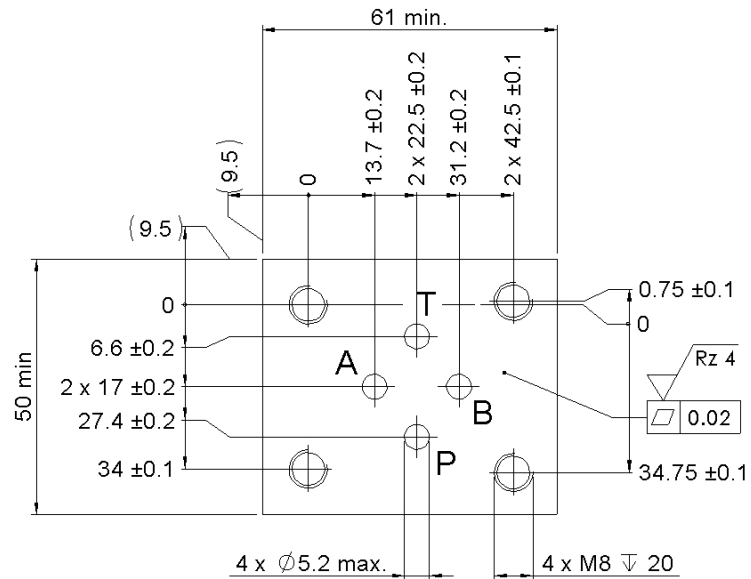


## Type WV1000

NG 6 Bieri  
up to 25 l/min, up to 1000 bar

### Drilling pattern

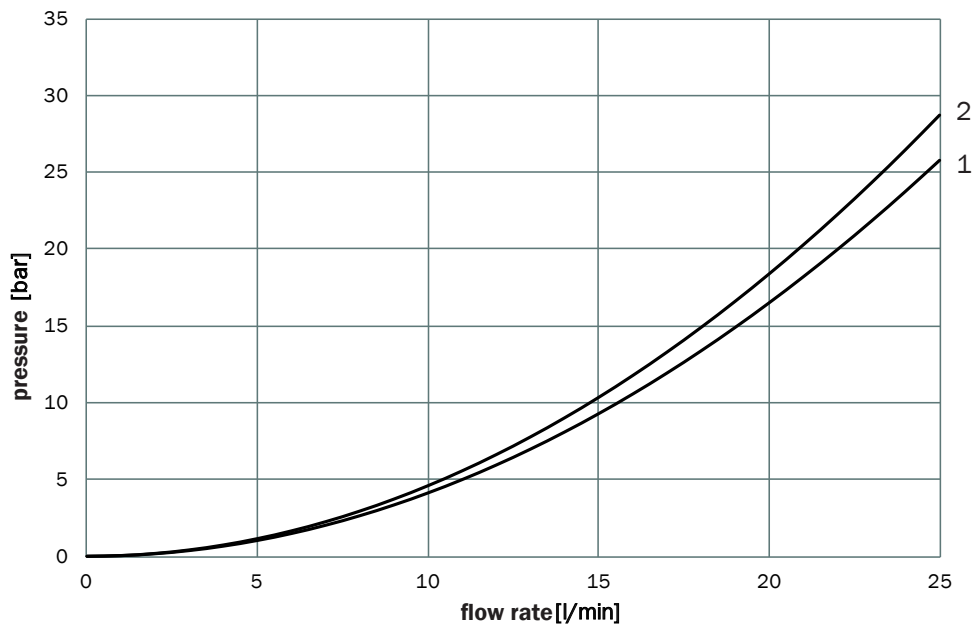
acc. to Bieri standard



Valve fastening: M8 screws, quality 8.8

### Pressure drop

( $v = 15 \text{ mm}^2/\text{s}$ )

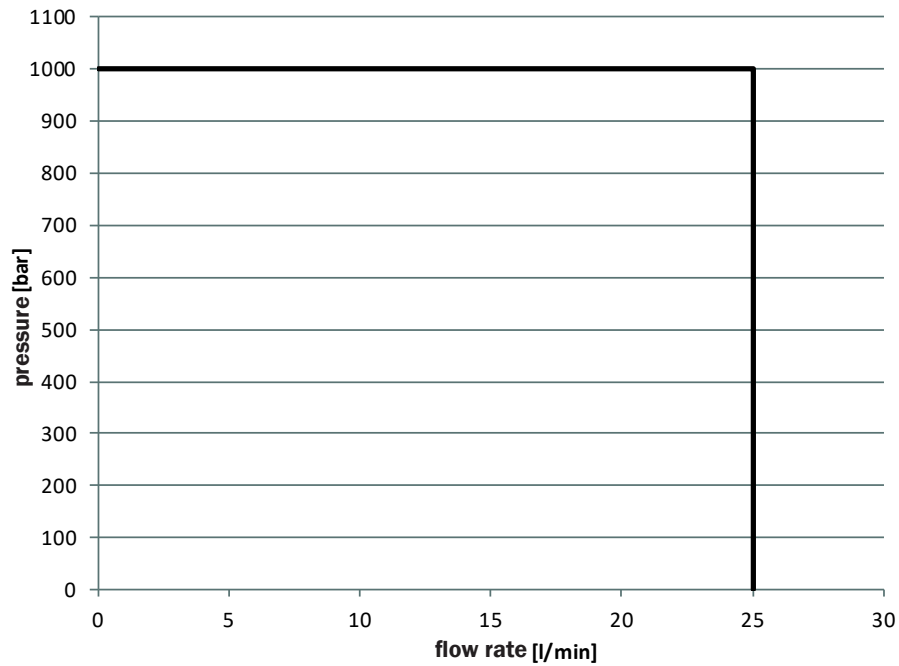


		a (switched)		0 (initial position)	
Valve type	Control funktion	P - A	P - T	P - A	P - T
2/2	E4		2		
2/2	BE4				2
2/2	E2	1			
2/2	BE2			2	

## Hydraulic switching capacity

Hydraulic switching capacity at nominal operating voltage and at operating temperature

Switch on current  $I_{ON} \geq 0.7 \times I_N$



## Switching times

Valve type	Control function	Switching on [ms]*		Switching off [ms]*
		at operating temperature ( $0.7 \times I_N$ )	cold ( $1 \times I_N$ )	
2/2	E4, E2, BE4, BE2	40	35	15

\* indicative values

**Type WV1000**

NG 6 Bieri  
up to 25 l/min, up to 1000 bar

**Electrical data (solenoid)**

Voltage	DC voltage
Tolerance	+/- 10%
Nominal power	26,7 W
Nominal voltage	24 V
Nominal current	1,1 A (valid at R 21,2 Ohm)
Duty cycle	100%
Protection class (standard version)	IP65 acc. EN 60529 / DIN 40050 at correct assembly on cable socket

**Plug for solenoid**

Part description	Part No.
Plug for solenoid grey	6132484
Plug for solenoid black	3728850

**Spare parts**

	Part description	Part No.
Seal kit	4 x O-Ring 6,07 x 1,78 (FKM) 4 x Support ring 12,4 / 9,5 x 1,4	4644322

**Bieri Hydraulik AG**

Könizstrasse 274  
CH-3097 Liebefeld  
Tel. +41 31 970 09 09 | Fax +41 31 970 09 10  
info@bierihydraulics.com | www.bierihydraulics.com

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.