

Directional spool valves type SW, SWP and NSWP

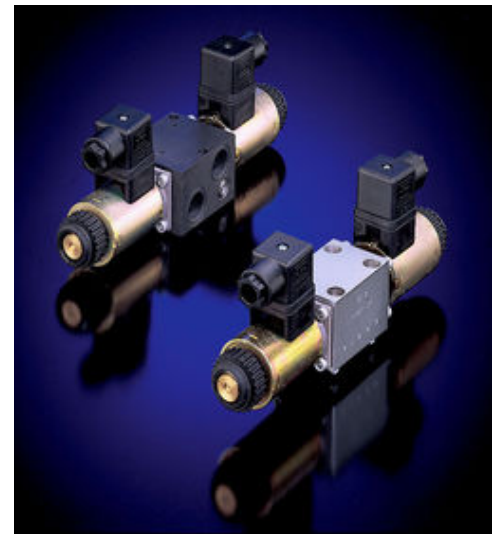
These directional spool valves are designed as individual valves either for pipe connection (type SW) or for manifold mounting (type SWP, NSWP) or as valve bank (type SWP, NSWP). Actuation is via directly acting pressure resistant single stroke solenoids (wet armature); type NSWP may feature twin solenoids enabling two speed rates or prop. solenoids which may be combined also with a stroke limitation. Versions with ATEX-approval are available as well. The individual manifold mounting valves can be combined with sub-plates enabling pipe connection plus an optional pressure limiting valve. The valve sections type NSWP can be combined with various options either on the pump side e.g. check valves, throttles, or orifices plus orifices or restrictor check valves on the consumer side.

Features and benefits:

- Compact valve banks
- Simple actuation of proportional functions
- Various versions
- Combinations with NG6 available

Intended applications:

- Machine tools - chipping (milling, drilling, turning, grinding)
- Construction and construction materials machinery
- Offshore and marine technology
- Road vehicle construction



Nomenclature:	Directional spool valve
Design:	Individual valve for pipe connection Individual manifold mounting valve Valve bank with sub-plates Combination with hydraulic power packs
Actuation:	Solenoid
p_{max}:	315 bar
Q_{max}:	12 ... 25 lpm

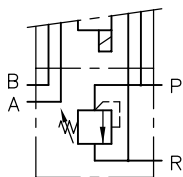
Design and order coding example

NSWP2	G	/M	/R	/ ABR1,0	/50	/G24	- 3/8
							Indiv. connection block For direct installation in the pipe work, ports G 3/8 (BSPP) (type NSWP and SWP2), with/without check valve (manually or tool adjustable) between P and R (type SWP1)
							Voltage of the actuation solenoids 12V DC, 24V DC, 110V AC, 230V AC ■ Solenoids with various plug versions
							Pressure switch or pressure gauge at A or B
							Additional elements at A and/or B Restrictor check valve or orifice
							Additional elements at P Check valve or orifice
							Solenoid version <ul style="list-style-type: none"> ■ ON/OFF-solenoid ($p_{\max} = 315$ bar) ■ Solenoid with detent ■ Prop. solenoid with/without stroke limitation (limiting Q_{\max}) ■ Double solenoid (two speed rates) ■ Solenoid version conforming ATEX ($p_{\max} = 210$ bar)
							Function <ul style="list-style-type: none"> ■ Indiv. valve with check valve or orifice in gallery P and/or check valve in gallery R (type SWP) ■ Indiv. valve with 6/2-way function
Basic type, size	Directional spool valve SW, SWP size 1 and 2 NSWP size 2, connection hole pattern NG 6 (CETOP)						

Function

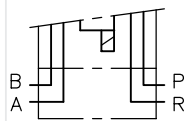
Sub-plate for pipe connection

- 1/4 S(R)



Sub-plate with pressure limiting valve¹⁾

- 3/8



Sub-plate²⁾

1) Only for type SWP 1

2) Only for type NSWP and SWP 2

Valve sections

Basic symbols

Symbol

Individual valve

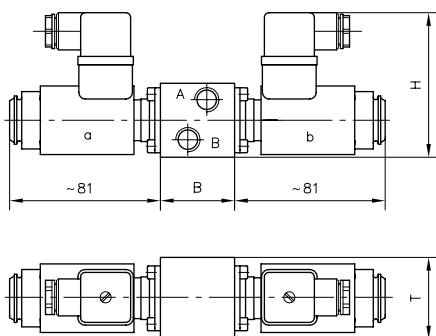
May be connected either in parallel or in series within a valve bank

SW	SWP / NSWP	G	D	E	O	C ³⁾	N	B	W	K	Q	R ³⁾	U ³⁾
Only connected in series within a valve bank (only type SW1)									Spool valves suited for prop. actuation				
		L	F	H	S	Y	G	D					

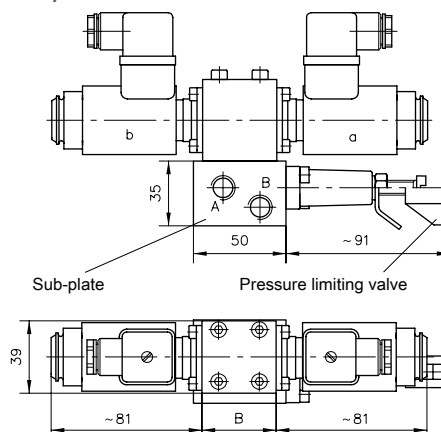
3) Only for type SWR 1

General parameters and dimensions

SW



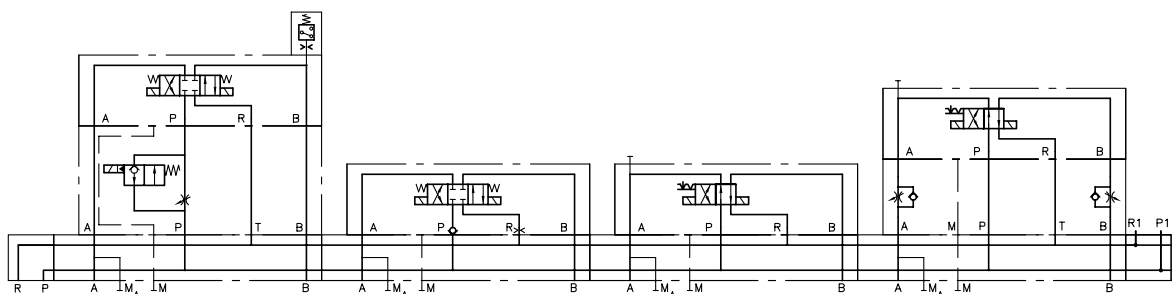
SWP/NSWP2



	Q_{\max} [lpm]	p_{\max} [bar]	Ports (BSPP)	Dimensions [mm]			m [kg]	
				H	B	T	Individual directional spool valve	Sub-plate
SW/SWP 1	12	315	G 1/4	77 ... 90	40	40 ... 44	1.1 ... 1.5	0.6 ... 0.7
SW/SWP 2	25	315	G 3/8, G 1/4	78 ... 82.5	60 ... 70	40 ... 45	1.1 ... 2.4	approx. 0.8
NSWP2			NG 6					

Circuit example:

BA2-A5
 -NSWP2G/M/03/NZP16V/PQ20/0
 -NSWP2G/M/R/B1,0
 -NSWP2K/M/20/0
 -NSWP2K/M/20/NZP16Q33/0
 -2-L24



Combinable products:

- Valve bank type BA: [D 7788](#)
- Intermediate plate type NZP: [D 7788 Z](#)
- 6/2-way directional valve: [Sk 7951-J-6/2](#)

Similar products:

- Valve banks type SWR and SWS: [D 7450](#), [D 7451](#)
- Clamping modules type NSMD: [D 7787](#)

Associated technical data sheets:

- Directional spool valves type SW: [D 7451](#)
- Directional spool valves type SWP: [D 7451 P](#)
- Directional spool valves type SWR: [D 7451 R](#)
- Directional spool valves type NSWP: [D 7451 N](#)

Plugs:

- With LEDs etc.: [D 7163](#)
- With economy circuit: [D 7813](#), [D 7833](#)