

## W - 2.50 A

### Stacking

### 2/2 Directional Solenoid Valve, 6 mm

### Direct acting

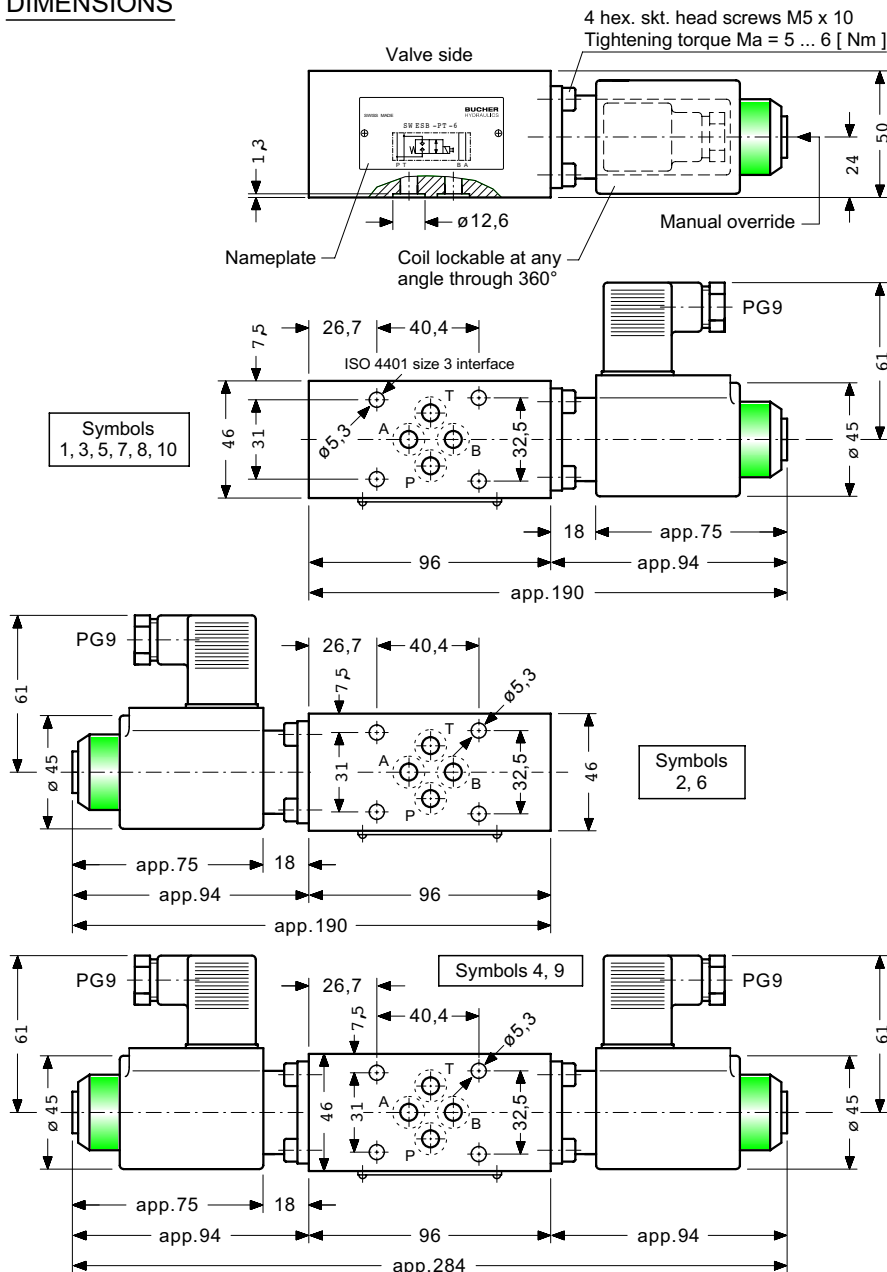
### Series SWESB ...

20 l/min, 315 bar

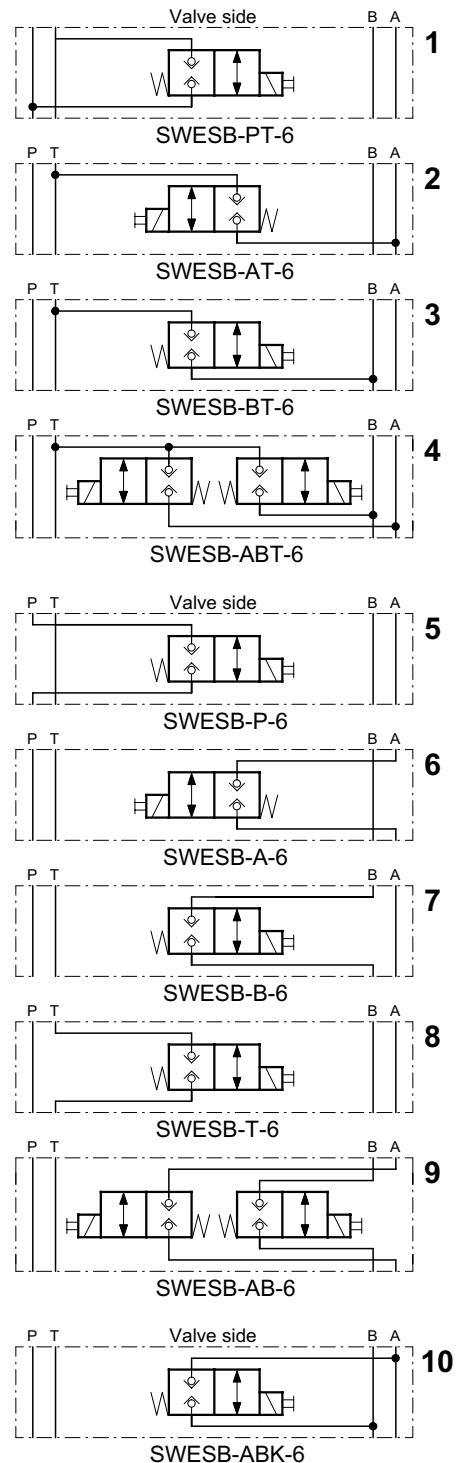
- Uses poppet type 2/2 cartridge valve W1C...
- 315 bar, 20 l/min on all ports
- Guided poppet design
- Bi-directional zero leakage / bi-directional flow
- As **standard** with manual override (option: without)
- Coils can be changed without opening hydraulic envelope
- AC and DC models use same core tube
- Mounting interface to ISO 4401 / CETOP RP35H size 3  
NFFA D03, DIN 24 340 A6



### DIMENSIONS



### SYMBOLS



## DESCRIPTION

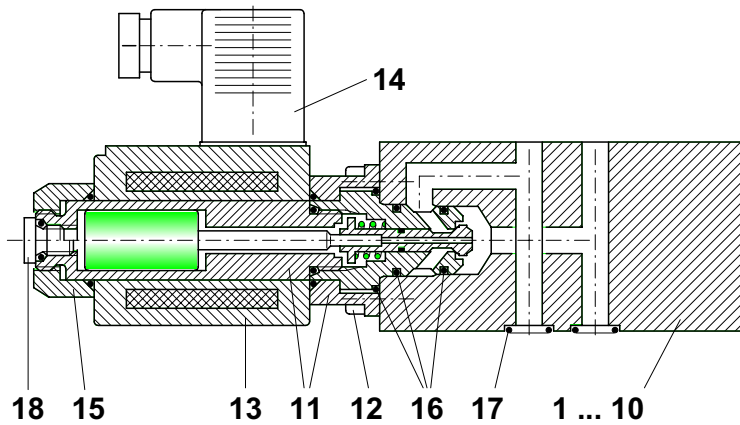
The valve opens the connection between 2 ports or closes it with zero-leakage. When open, flow can be in either direction, and the closure is zero-leakage in both directions. These stacking valves are provided

with pressure-tight DC solenoids featuring core tube and slip-on coil. Coils can be changed very rapidly without opening the hydraulic envelope. For AC service we supply coils with integral rectifiers.

2/2 solenoid directional valves are supplied "deenergised closed" and with, or optionally without manual override. Sealing of the hydraulic interface is ensured by O-rings in counterbores in the valve body.

## SCHEMATIC SECTION

showing the relevant ports



## INSTALLATION AND SERVICING

ALL INSTALLATION AND SERVICING MUST BE CARRIED OUT WITH CARE, AND BY QUALIFIED PERSONNEL ONLY

When changing seals, the new seals must be thoroughly oiled or greased before fitting them to the valve. Use the correct tightening torque for the 4 cap screws item 12 when refitting the cartridge, for example after a seal change.

## RELIABILITY INFORMATION

In accumulator systems, the user must ensure that the maximum flow rate of 20

l/min is not exceeded in either flow direction.

In applications where the valve is subjected to long dwell periods under pressure, please contact BHFRU.

## PRINCIPAL CHARACTERISTICS

Type	stacking 2/2 poppet valve
Design	guided poppet, direct acting
Mounting method	stack mounting
Size	ISO 4401 size 3 interface
Mass	1 solenoid: 2,2 kg 2 solenoids: 2,9 kg
Mounting attitude	unrestricted
Flow direction	see symbols
Operating pressure	... 315 bar at 1 ... 1,200 cycles/hr. ... 210 bar at 1,000 ... 10,000 cycles/hr.
Fluids	hydraulic oils HL and HLP to DIN 51 524 other fluids - contact BHFRU
Minimum fluid cleanliness	18/14 to ISO 4406 / CETOP RP70H 8 ... 9 to NAS 1638

Fluid temperature range	-20° ... +60° C
Viscosity range	3 ... 300 cSt
Flow rate, Q max.	20 l/min (see $\Delta p$ -Q characteristics)
Standard voltages	115 VAC / 230 VAC 40 ... 60 Hz 12 VDC / 24 VDC
Max. voltage fluctuation	± 5%
Power consumption	38 W (24 VDC = 32 W)
Duty cycle	100% energisation
Protection class	IP 65 to DIN 40 050
Electrical connector	3-pin square plug to DIN 43 650 / ISO 4400

## SERVICE PARTS

It.	Qty.	Description	▲ = available as service part
1	1	- St. Body 46 x 50 x 96 Type FL3-6 (.. PT ..)	
2	1	- St. Body 46 x 50 x 96 Type FJ3-6 (.. AT ..)	
3	1	- St. Body 46 x 50 x 96 Type FK3-6 (.. BT ..)	
4	- 1	- St. Body 46 x 50 x 96 Type JJ3-6 (.. ABT ..)	
5	1	- St. Body 46 x 50 x 96 Type EJ3-6 (.. P ..)	
6	1	- St. Body 46 x 50 x 96 Type AJ3-6 (.. A ..)	
7	1	- St. Body 46 x 50 x 96 Type BJ3-6 (.. B ..)	
8	1	- St. Body 46 x 50 x 96 Type HJ3-6 (.. T ..)	
9	- 1	- St. Body 46 x 50 x 96 Type JL3-6 (.. AB ..)	
10	1	- St. Body 46 x 50 x 96 Type JK3-6 (.. ABK ..)	
11	1	2 2/2 cartridge poppet valve, type W1C...	
12	4	8 Hex. skt. hd. screw M5 x 10 8.8 DIN 912	
13	1	2 Coil ... VAC	
		2 Coil ... VDC	
14	1	2 Square plug, DIN 43 650, with flat seal	
15	1	2 Knurled nut, EIC	
16	1	2 Seal kit no. DS-095-* for cartridge W1C...	
17	4	4 O-ring no. 012 $\varnothing$ 9,25 x 1,78 N90	
18	1	2 Manual override, type HN-H	

Symbols 4 and 9

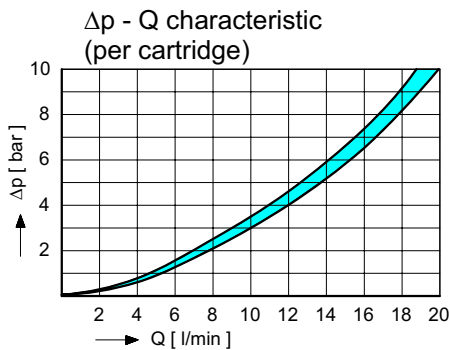
Symbols 1 ... 3, 5 ... 8 and 10

TO ORDER SERVICE PARTS, STATE:

- complete unit model code, including design number
- data sheet number, including issue date
- part item number from above list
- part description from above list
- quantity required

## PERFORMANCE CHARACTERISTICS

Measured with oil viscosity 33 cSt  
coil at steady-state temperature  
5 % under-voltage



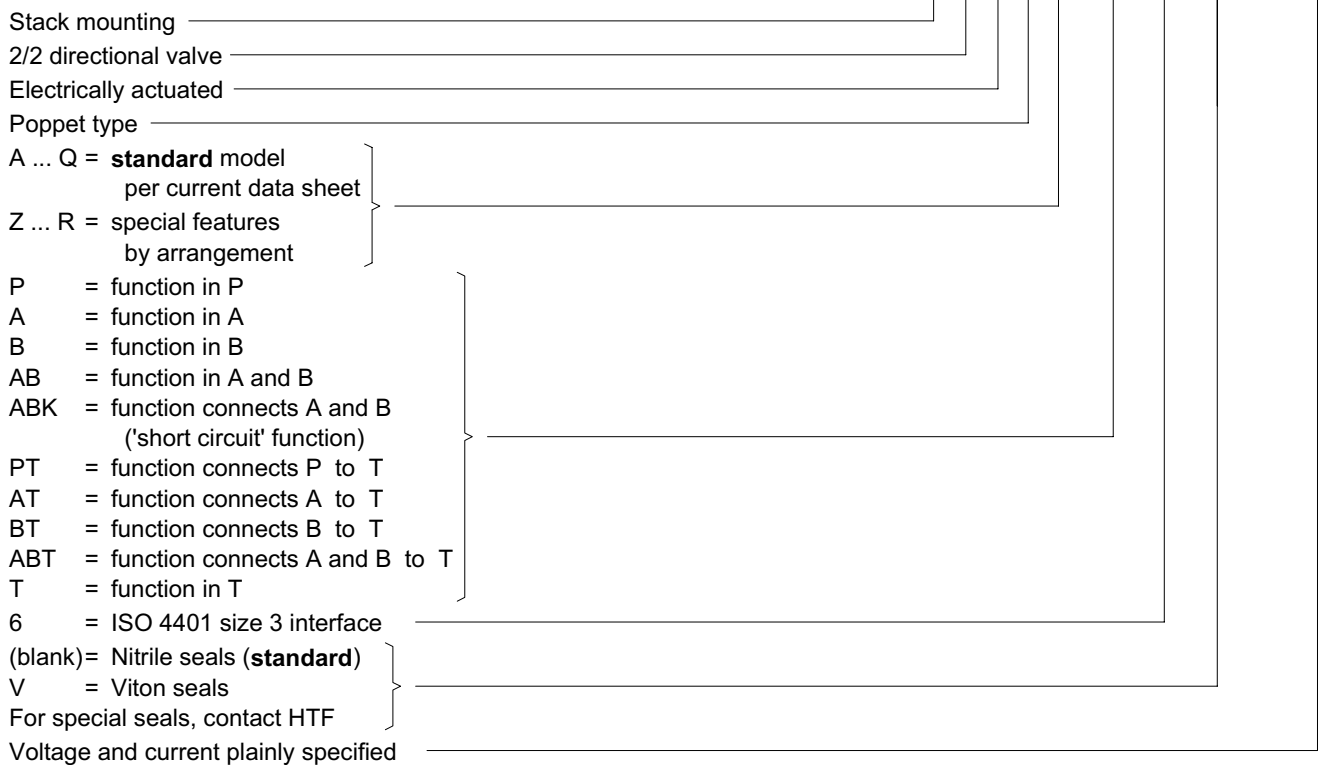
## SWITCHING TIMES

Solenoid ON	80 ... 220 ms
Solenoid OFF	10 ... 160 ms

These times are strongly influenced by fluid pressure, flow rate and viscosity, as well as by the dwell time under pressure.

## MODEL CODE KEY

e.x. SWESB - P - 6 - \_ 24 VDC



## RELATED DATA SHEETS

- i - 00 Table of interface equivalents
- i - 31 Interface A6 to DIN 24 340
- W - 2.10 / W - 2.11 2/2 cartridge poppet valve W1C...

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