

Table of Contents

1	Product Description	2
1.1	Properties	2
2	Technical Data	2
3	Ordering Information	3
4	Description of Characteristics in Accordance with Type Code	3
4.1	Design	3
4.2	Connections	3
4.3	Input flow rate	3
4.4	Maximum permissible pressure	4
4.5	Actuation	4
4.6	Preferred position	4
5	Installation	4
5.1	General remarks	4
5.2	Connection recommendations	4
5.3	Dimensions	5
6	Notes, Standards and Safety Requirements	6
6.1	General remarks	6
6.2	Standards	6
7	Accessories	6

1 Product Description

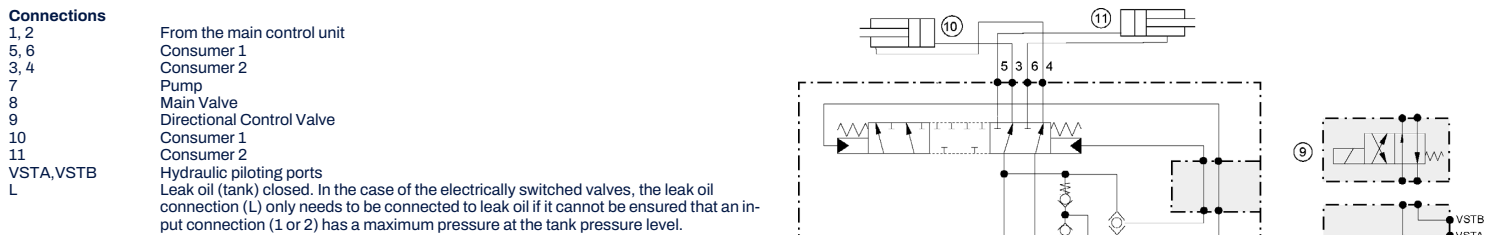
In the unswitched state of the directional control valve, the main consumer (consumer 1) is activated. In the switched state, the new additional consumer (consumer 2) is operated. Switching is done hydraulically or electrically. In the electrical version the control pressure which is necessary for the switching is taken from one of the high-pressure inputs, so that no additional pilot pressure must be provided. If, due to the application, no pressure can be built up on both inputs, the valve in the electrical version can not switch.

In the unswitched position the input lines 1 and 2 are connected with outlet ports 3 and 4. In the switched position, the input lines 1 and 2 are connected to the outlet ports 5 and 6.

It should be noted that the respective non-connected outputs are blocked in the directional control valve 6/2 and thus there is no connection to any existing pressure relief valve in the input lines 1 and 2 respectively.

The 6/2 way valve is also available in an optional version with a transition position with negative overlap. During the switching operation, the terminals 1, 3, 5 or 2, 4, 6 are then briefly connected. Switching from a low pressure consumer to a consumer with a clamped pressure can result in a relaxation shock that can be reduced by the negative overlap.

The directional valves 6/2 are constructed as slide valves. They are not leak-free.



1.1 Properties

- Simple system extension with an additional function
- High switch reliability
- Simple installation between main control valve and two consumers
- Low pressure loss

2 Technical Data

criterion	units	value		
Installation position		any		
Weight	kg		elektric	hydraulic
		2S	6,3	5,5
		2M	8,9	8,1
		2L	14,2	13,4
Max. input pressure (P, A)	bar	350 optional 420		
Maximum recommended tank pressure (L)	bar	< 10 bar, recommended < 1bar		
Maximum input flow rate (P)	l/min	2S: 120, 2M : 250, 2L : 400		
Switching pressure (hydraulically operated version)	bar	minimum: 5; maximum 350		
Hydraulic fluid		mineral oil (HL, HLP) conforming with DIN 51524, other fluids upon request		
Leak oil rate	l/min	max. 0,2 (Leckage over control edge at 40°C und 200bar)		
Hydraulic fluid pressure range	°C	-20 to +80		
Ambient temperature	°C	< +50		
Viscosity range	mm2/s	2.8 - 500		
Contamination grade		Filtering conforming with NAS 1638, class 9, with minimum retention rate $\beta_{10} \geq 75$		
Supply voltage	VDC	12 or 24		
Voltage tolerances	%	± 10		
Solenoid switch power consumption	W	33		
Solenoid switch flow rate consumption	A	2.9 at 12 VDC, 1.4 at 24 VDC		
Solenoid switch duty cycle	%	100		
Protection class according to DIN 40050		IP 65		
Current supply		ISO 4400 angle connector		

3 Ordering Information

D62							0
00	01	02	03	04	05	06	07
00	product group	6/2					D62
01	variant	standard Version, small size standard Version, medium size standard Version, maximum size					2S 2M 2L
02	connections	version 2S version 2M version 2L				connections	03D 03E 03F
03	input flow rate	version 2S version 2M version 2L				120 l/min 250 l/min 400 l/min	120 250 400
04	max. permissible pressure					350 bar 420 bar	350 420
05	actuation	electrical switching 12 VDC – connection via ISO 4400 angle plug connection 4400 electrical switching 24 VDC – connection via ISO 4400 angle plug connection 4400 hydraulic, connections G1/4 ISO1179-1.					12S001 24S001 HYS03B
06	preferred position	6/2 directional valve, preferred position 1-3 or 2-4 6/2 directional valve, preferred position, 1-3 or 2-4 negative coverage				version 2S, 2M, 2L Ausführung 2M, 2L	620 62N
07	tank relief	without tank relief				version 2S, 2M, 2L	0

4 Description of Characteristics in Accordance with Type Code

4.1 Design

The valve is available in 3 versions:

2S - small size (120 l/min)

2M - medium size (250 l/min)

2L - maximum size (400 l/min)

4.2 Connections

	2S	2M	2L
1,2,3,4,5,6	G ½ ISO 1179-1	G ¾ ISO 1179-1	G1 ISO 1179-1
L		M14 x 1,5 ISO 9974-1	
VSt A, VSt B		G ¾ (ISO 1179-1)	

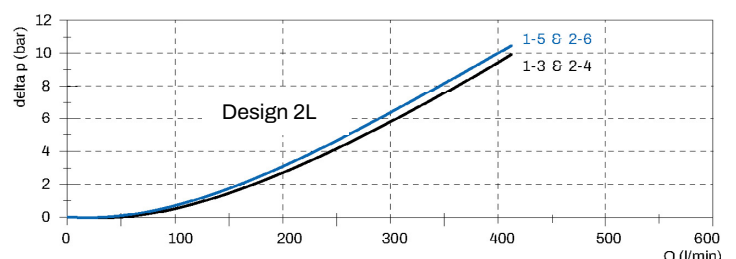
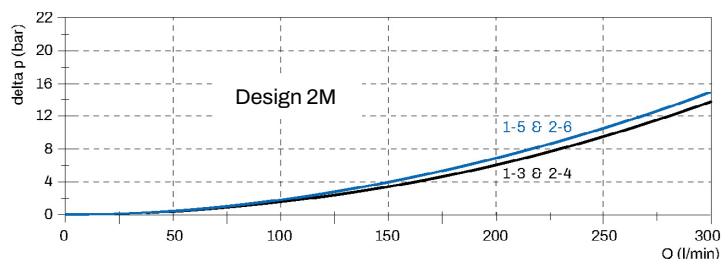
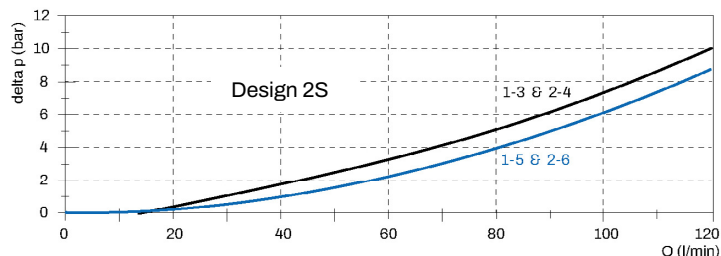
4.3 Input flow rate

2S 120 l/min.

2M 250 l/min.

2L 400 l/min.

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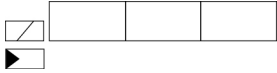


4.4 Maximum permissible pressure

Two versions of the valve are available: The standard variant with a maximum permissible pressure of 350 bar, the second with 420 bar.

4.5 Actuation

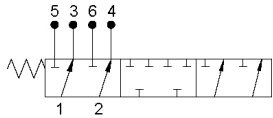
The valve can be actuated electrically or hydraulically



- The power supply (12 or 24 VDC) for the electrical variant is done via an angled plug connector ISO 4400
- In the hydraulically actuated version, the connection of the piloting signal is done via a G 1/4 (ISO 1179-1) connection. The minimum switching pressure for the hydraulically operated valve is 5 bar. The maximum switching pressure must not exceed 350 bar.

4.6 Preferred position

The valve is available in two versions.

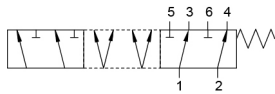


preferred position 1-3 & 2-4

Unswitched the valve is in a preferred position, the functionality corresponds with a 6/2 directional valve.



It should be noted that, in the case of loads acting on the non-switched consumer from the outside, pressure relief may not be effective.



preferred position 1-3 & 2-4 with negative coverage.

5 Installation

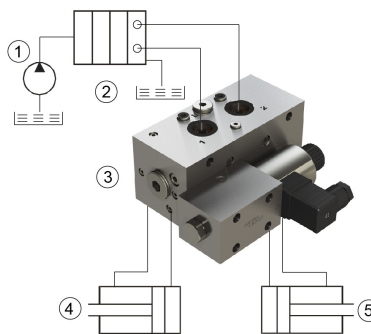
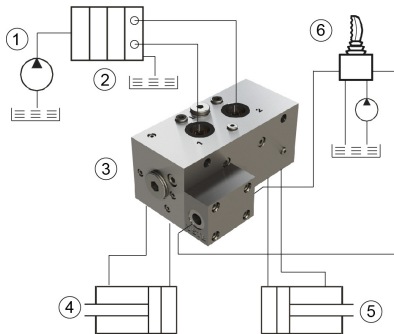
5.1 General remarks

- All installation and safety information from the construction machine manufacturer are to be observed.
- Only technically permitted changes are to be made on the construction machine.
- The user must ensure that the device is suitable for the respective application.
- Application exclusively for the range of application specified by the manufacturer.
- Before installation or dismantling, the hydraulic system is to be depressurized.
- Settings are to be made by qualified personnel only.
- Opening is only to be performed with the approval of the manufacturer, otherwise the warranty is invalidated.
- No responsibility is taken for the correctness of these connection recommendations, the functionality and the technical details of the construction machine must be checked.
- In the case of the electrically switched valves, the leak oil connection (L) only needs to be connected to leak oil if it cannot be ensured that at least one of the input connections (1 or 2) has a pressure at the most on tank pressure level.



Safety note: In order to protect the internal pilot shuttle valve, the input pressures in connections 1 and 2 must not suddenly invert (e.g. by using a switched 4/2 or 4/3 directional valve in the input lines).

5.2 Connection recommendations



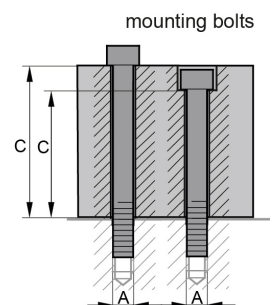
- 1 – Pump
- 2 – Main control valve
- 3 – Directional valve S6/2
- 4 – Consumer 1
- 5 – Consumer 2
- 6 – Hydraulic pilot control

Montage - Bauraum

- Ensure that the support element is level.
- Ensure that the valve is not bent during installation.
- Ensure that there is sufficient free space for setting and installation work.

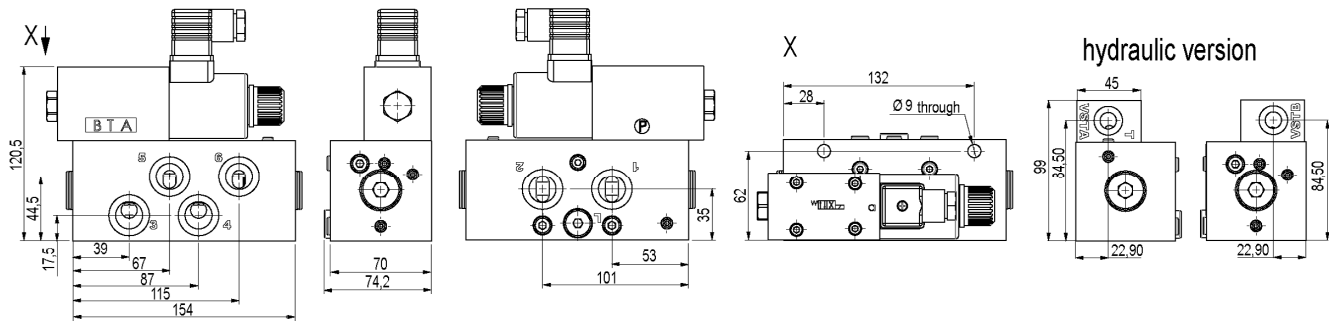
CAUTION! Hydraulic hoses must not come into contact with the directional control valve as they will suffer thermal damage.

	Thread A	Strength class	Tightening torque installation Valve (Nm)	C (mm)
2S	M8	8,8	24,6	69,5
2M	M10	8,8	48	79,5
2L	M12	8,8	84	86,5

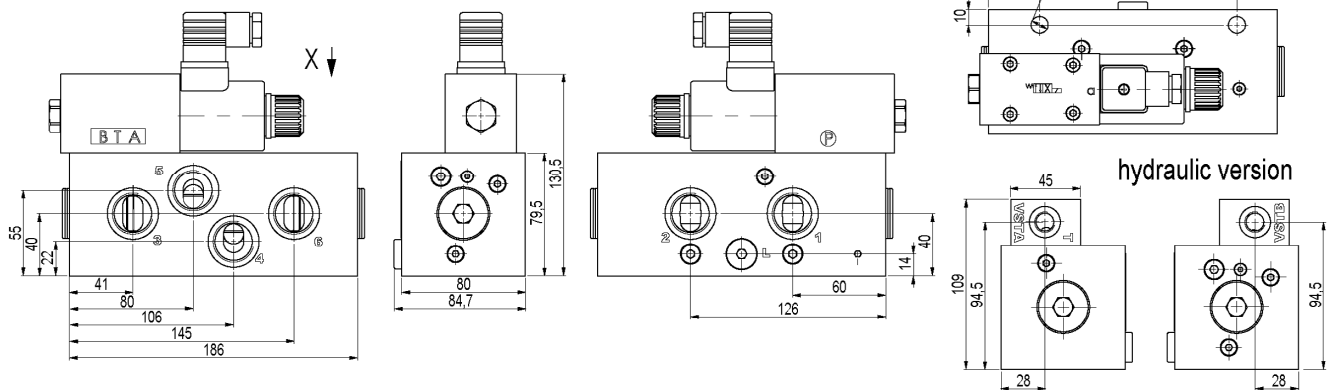


5.3 Dimensions

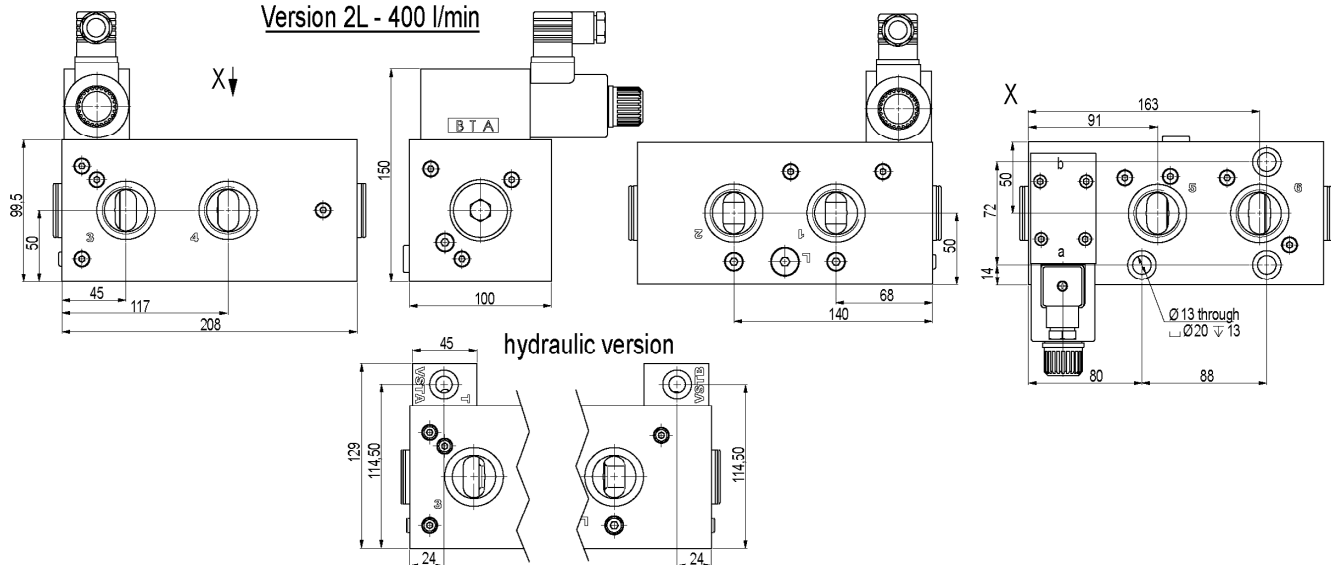
Version 2S - 120 l/min



Version 2M - 250 l/min



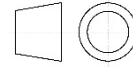
Version 2L - 400 l/min



6 Notes, Standards and Safety Requirements

6.1 General remarks

The views in drawings are shown in accordance with the European normal projection variant



6.2 Standards

The following standards must be observed when installing and operating the valve:

EN 563, Temperatures on accessible surfaces

EN 982, Safety requirements for fluid technology systems and their components.

7 Accessories