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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.

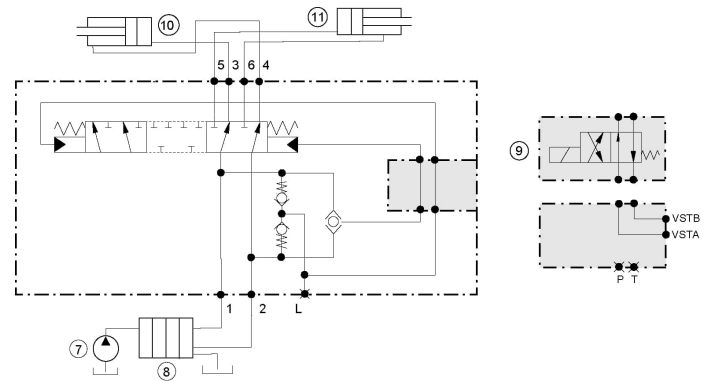
It should be noted that the respective non-connected outputs are blocked in the directional control valve 6/2 and thus there is no connection to any existing pressure relief valve in the input lines 1 and 2 respectively.

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.

Connections

1, 2	From the main control unit
5, 6	Consumer 1
3, 4	Consumer 2
7	Pump
8	Main Valve
9	Directional Control Valve
10	Consumer 1
11	Consumer 2
VSTA, VSTB	Hydraulic piloting ports
L	Leak oil (tank) closed. 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 an input connection (1 or 2) has a maximum pressure at the tank pressure level.



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

critereon	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: 150, 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					2S
		standard Version, medium size					2M
		standard Version, maximum size					2L
02	connections	version 2S	connections			03D	
		version 2M				03E	
		version 2L				03F	
03	input flow rate	version 2S	150 l/min			150	
		version 2M	250 l/min			250	
		version 2L	400 l/min			400	
04	max. permissible pressure	350 bar			350		
		420 bar			420		
05	actuation	electrical switching 12 VDC – connection via ISO 4400 angle plug connection 4400					12S001
		electrical switching 24 VDC – connection via ISO 4400 angle plug connection 4400					24S001
		hydraulic, connections G1/4 ISO1179-1.					HYS03B
06	preferred position	6/2 directional valve, preferred position 1-3 or 2-4			version 2S, 2M, 2L		620
07	Special features	Center position closed					X1
		Slider with negative overlap					X2
		Tank Relief...					X3
		Position monitoring					X4
		Intermediate plate with external pilot supply for use in closed circuit					X5

The versions listed below are available standard versions. Other versions within the scope of those specified in the type code Options are configurable on request. As a result, minimum purchase quantities are usually required.

3.1 Versions currently available

The versions listed below are available as standard. Further versions as part of the options given on the type code can be configured upon request. Therefore normally minimum order quantities are required.

Type code	Description	Part No.
D62-2S-03D-150-420-HYS03B-620	D62-2S G1/2 150LPM 420BAR HYDR PRIO POS	133.902.502.9
D62-2S-03D-150-350-12S001-620	D62-2S G1/2 150LPM 350BAR 12VDC PRIO POS	233.242.500.9
D62-2S-03D-150-420-12S001-620	D62-2S G1/2 150LPM 420BAR 12VDC PRIO POS	233.242.501.9
D62-2S-03D-150-350-24S001-620	D62-2S G1/2 150LPM 350BAR 24VDC PRIO POS	233.342.500.9
D62-2S-03D-150-420-24S001-620	D62-2S G1/2 150LPM 420BAR 24VDC PRIO POS	233.342.501.9
D62-2M-03E-250-420-HYS03B-620	D62-2M G3/4 250LPM 420BAR HYDR PRIO POS	135.902.503.9
D62-2M-03E-250-350-12S001-620	D62-2M G3/4 250LPM 350BAR 12VDC PRIO POS	235.262.552.9
D62-2M-03E-250-420-12S001-620	D62-2M G3/4 250LPM 420BAR 12VDC PRIO POS	235.262.553.9
D62-2M-03E-250-350-24S001-620	D62-2M G3/4 250LPM 350BAR 24VDC PRIO POS	235.362.552.9
D62-2M-03E-250-420-24S001-620	D62-2M G3/4 250LPM 420BAR 24VDC PRIO POS	235.362.553.9
D62-2L-03F-400-420-HYS03B-620	D62-2L G1 400LPM 420BAR HYDR PRIO POS	137.902.508.9
D62-2L-03F-400-420-12S001-620	D62-2L G1 400LPM 420BAR 12VDC PRIO POS	237.264.502.9
D62-2L-03F-400-420-24S001-620	D62-2L G1 400LPM 420BAR 24VDC	237.344.502.9
D62-2L-03F-400-420-24S001-620	D62-2L G1 400LPM 420BAR 24DVC PRIO POS	237.362.502.9
D62-2L-03F-400-350-24S001-620	D62-2L G1 400LPM 350BAR 24VDC PRIO POS	237.364.503.9

4 Description of Characteristics in Accordance with Type Code

4.1 Design

The valve is available in 3 versions:

- **2S** - small size (150 l/min)
- **2M** - medium size (250 l/min)
- **2L** - maximum size (400 l/min)

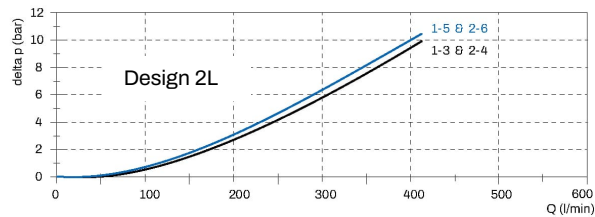
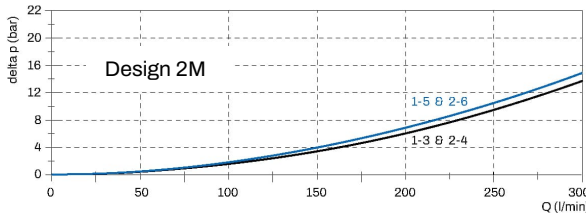
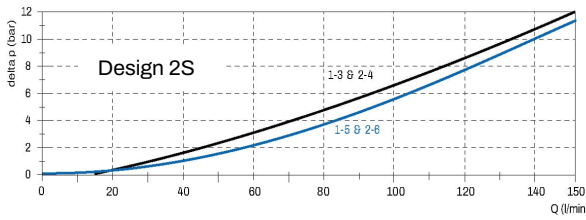
4.2 Connections

	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 - 150 l/min. **2M** - 250 l/min. **2L** - 400 l/min.

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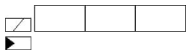


4.4 Maximum permissible pressure

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

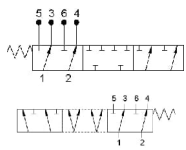
The valve can be actuated electrically or hydraulically



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.



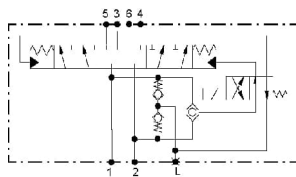
preferred position 1-3 & 2-4. Unswitched the valve is in a preferred position, the functionality corresponds with a 6/2 directional valve. It should be noted that, in the case of loads acting on the non-switched consumer from the outside, pressure relief may not be effective.

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

4.7 Special features

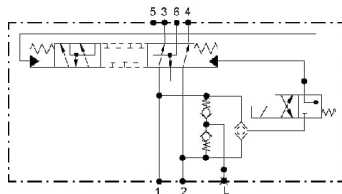
X1

This version should be selected if both connected consumers are to be supported in their position in the non-actuated position. This variant is not seat-tight because it is a slide valve.



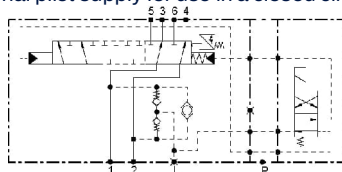
X3

The outputs 5+6 and 3+4 are connected to the tank connection. This prevents pressure from being placed on the other function. This is used, for example, if the application Check valves are used, which should not be opened unintentionally.



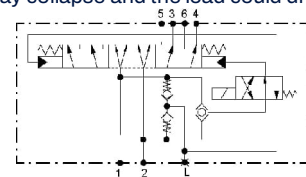
X5

Intermediate plate with external pilot supply for use in a closed circuit



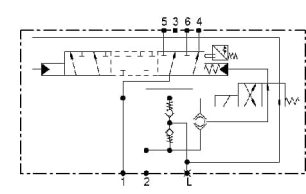
X2

In the transition, all channels are connected to each other. This results in a soft shifting process, the applied pressure may collapse and the load could drop.



X4

The valve also has a sensor that monitors the position of the slide.



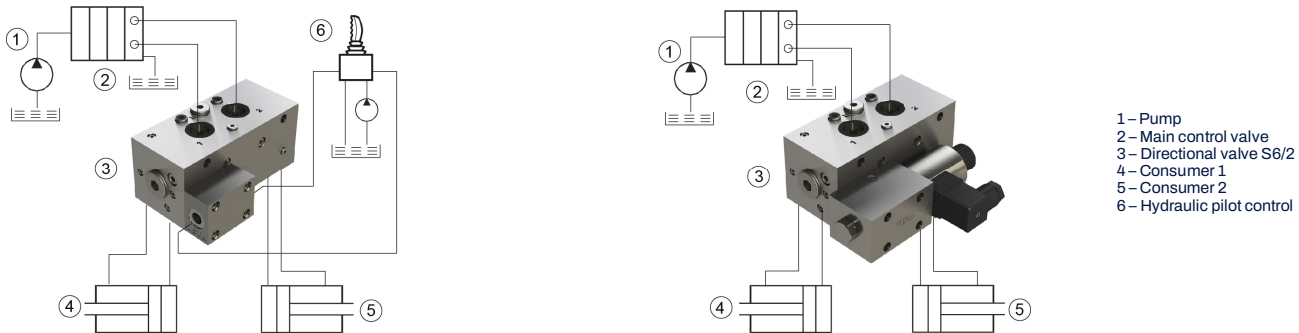
5 Installation

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 invers (e.g. by using a switched 4/2 or 4/3 directional valve in the input lines).

5.2 Connection recommendations

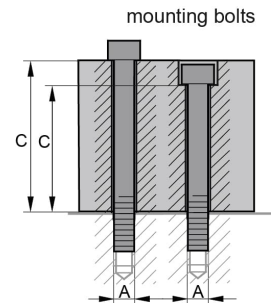


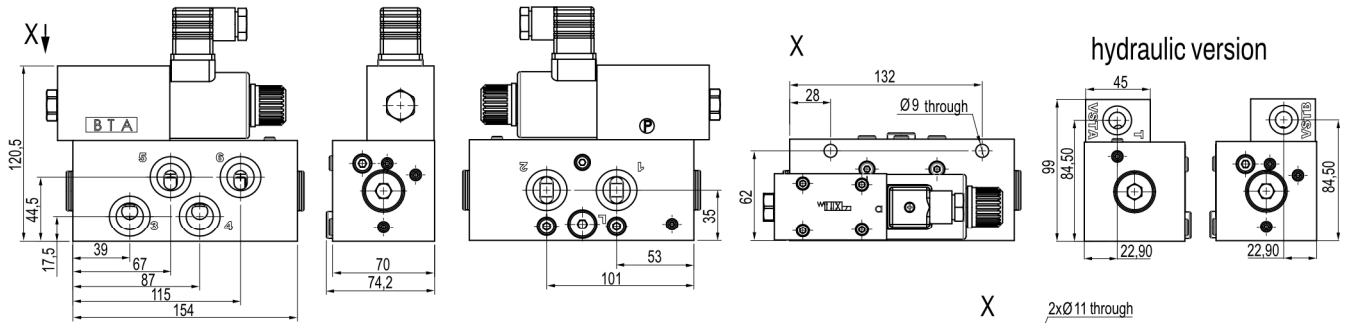
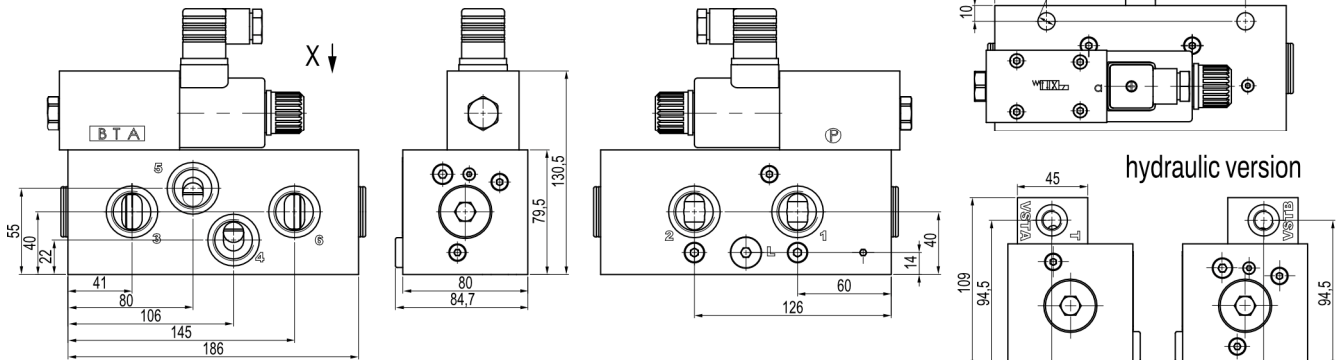
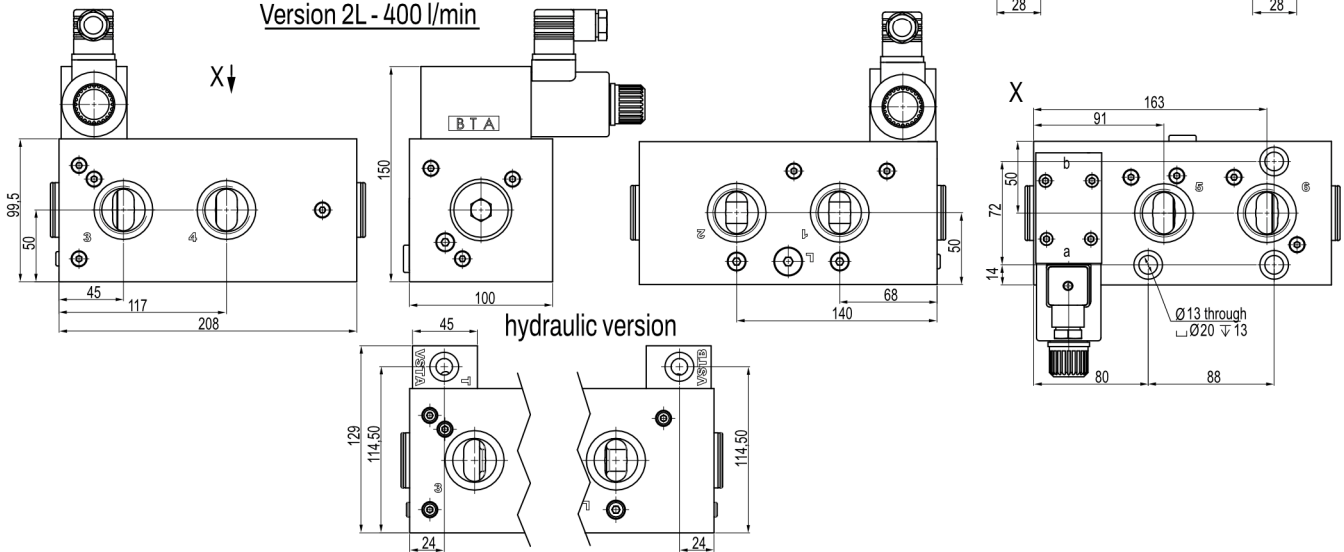
Montage - Bauraum

- 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 - 150 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