

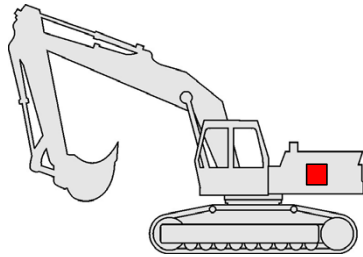
1 General

Directional control valves are used for functional extensions of hydraulic systems.

1.1 Applications

Construction machine system extension by one single-acting function. The directional control valve can be used to switch over to an additional consumer (example a.) or to switch in the volume flow of an additional pump into a hydraulic circuit (example b.).

1.2 Mounting Location (Recommendation)



Depending on the actual application the directional control valve is mounted near to the main control valve or on the boom or arm of the construction machine.

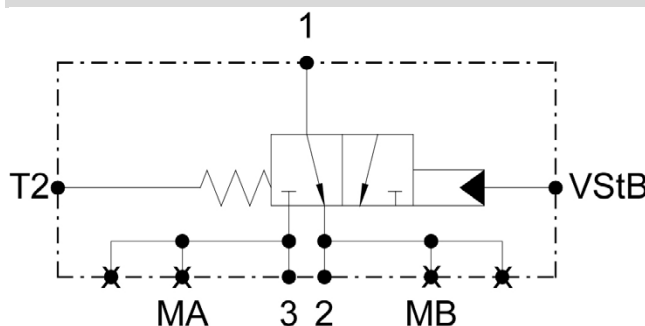
2 Function

In idle position port 1 is connected to port 2. When the di-rectional control valve 3/2 is activated hydraulically (switching pressure 10 bar) port 1 is connected with port 3 and port 2 is locked. The valve can also be activated via an electrical shift valve. Piloting of this valve should only be done with piloting pressure. Port T2 has to be connected to tank.

3 Characteristics

- Simple and robust design
- Hydraulically piloted
- Low pressure loss
- Suitable for high volume flows (up to 300 l/min)

4 Hydraulic Diagram



Connections:

- | | |
|----|---------------------|
| 1 | inlet |
| 2 | outlet switched off |
| 3 | outlet switched on |
| T2 | tank |

5 Technical Data

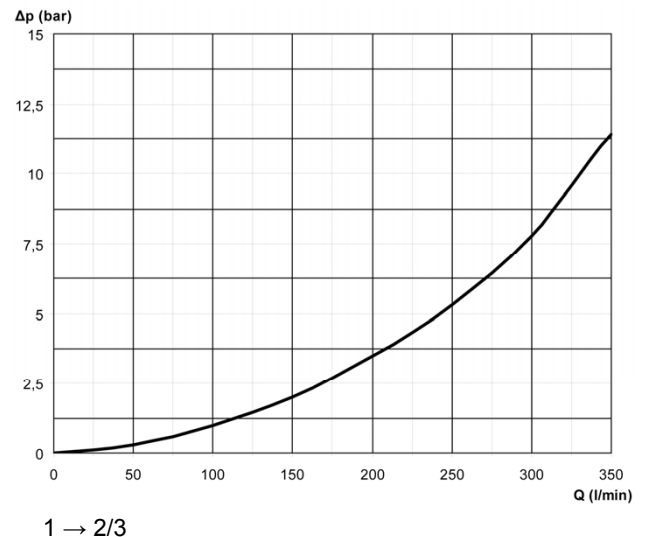
5.1 General

Installation position:	Any
Weight:	6 kg
Max. input pressure:	420 bar
Max. control pressure:	VSt B < 50 bar
Recommended pilot control pressure (valve through-flow):	10 bar + pressure on T2
Connections and designations:	1,2,3 = G 1 ISO 1179-1 T2, VStB, MA, MB = G1/4 ISO 1179-1

5.2 Hydraulik

Input volume flow:	300 l/min
Hydraulic fluid:	Mineral oil (HL, HLP) conforming with DIN 51524, other fluids upon request
Hydraulic fluid temperature range:	-20 – +80 °C
Environmental temperature:	< +50 °C
Leakage rate:	0,3 - 0,4 l/min at 300 bar and 60 °C
Viscosity range:	2.8 – 500 mm ² /s
Contamination grade:	Filtering conforming with NAS 1638, class 9, with minimum retention rate $\beta_{10} > 75$

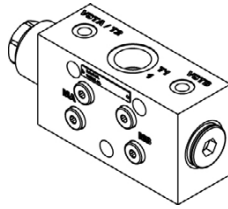
5.3 Pressure Loss



5.4 Standards

The following standards are to be observed because of the surface temperatures on the valve surfaces:

- EN 563
Temperatures on surfaces that can be touched.
- EN 982
Safety-technical requirements for fluid-technical systems and their components.



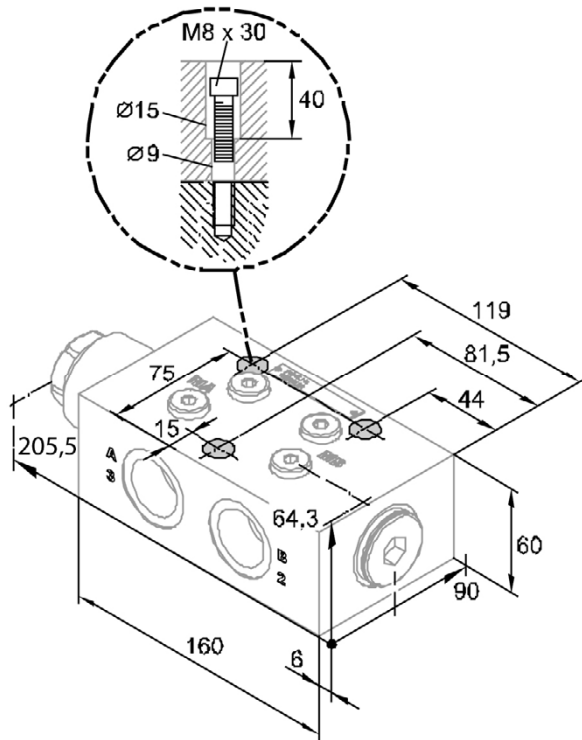
6 Installation

General Information

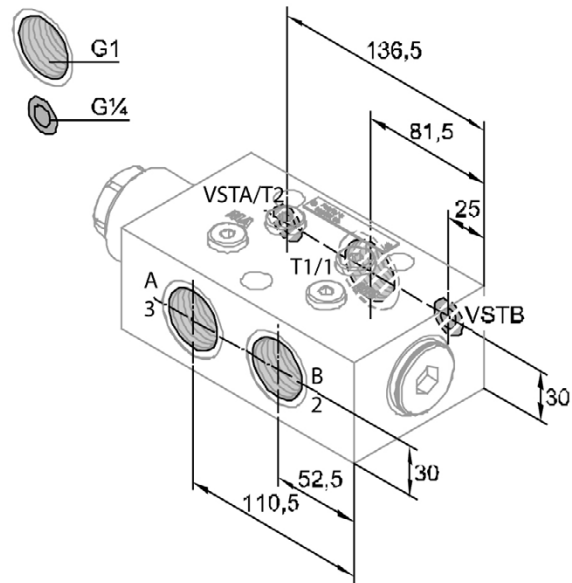
- Observe all installation and safety information of the construction machine manufacturer.
- Only technically permitted changes are to be made on the construction machine.
- The user has to ensure that the device is suitable for the respective application.
- Application exclusively for the range of application specified by the manufacturer.
- Before installation or deinstallation, 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 installation recommendations, the functionality and the technical details of the construction machine must be checked.

6.1 Installation

The valve is fastened to a level supporting element with three M8 x 30 bolts.



6.2 Connection Dimensions



6.3 Connection Recommendations



CAREFUL

Hydraulic hoses are not to come into contact with the directional control valve because otherwise they are subject to thermal damage. Ensure that standards EN 563 and EN 982 are observed.

