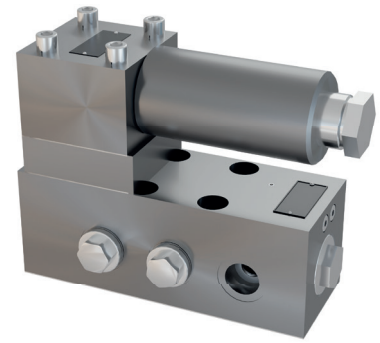


Pump bypass valve H30, H300

Pilot valve V300 and control pcb with filter



Features

- Mechanically - hydraulically actuated valve
- Pump bypass valve consisting of the 2/2-way valve and the non-return valve
- Pilot valve as a separate unit to be attached to the pump bypass valve
- Control pcb with filter inserts in an intermediate plate design
- The valve seats seal hermetically preventing internal leaks
- All parts are made of corrosion-resistant materials, and they are easily replaceable
- Attachment, flange design to be mounted directly to pumps

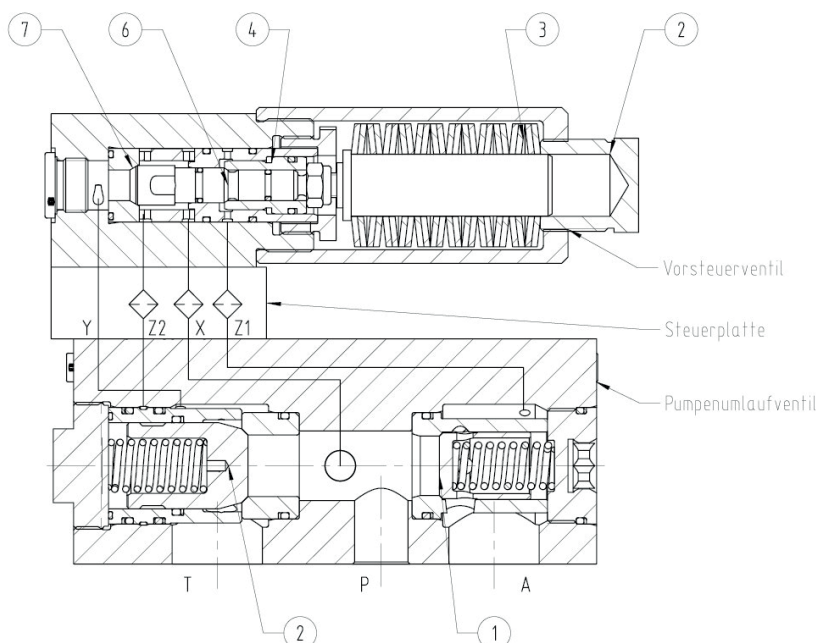
Control function

The pump bypass valve, the control pcb and the pilot valve form a valve unit controlling a pump in a pressure supply system with a pressure accumulator. Depending on the system pressure, the valve controls the working cycle of the pump, „load accumulator“ or „depressurised bypass“. The P-connector is connected to the pressure port of the pump, the A-connector to the pressure line of the system and the T-connector to the pressure-free tank.

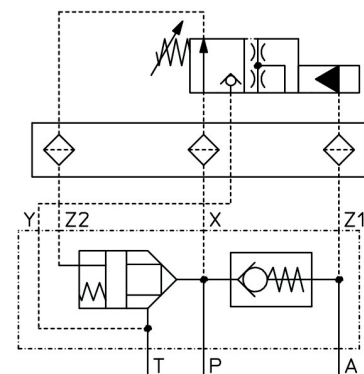
The flow of the pump enters the pump bypass valve at the P-connector. In the basic position, the pressure generated by the pump is used to close the 2/2-way valve (2) via the X- and the Z2-line. This has the effect that the non-return valve (1) opens, and the pump flow is supplied to the system via the A – connector.

At the pilot valve, the required pressure value „PE“ is set by means of the adjusting screw (3). Depending on the setting value, the springs (4) generate a force pressing the valve piston (6) into the valve seat (7). Thus, the Y-line is shut-off from the X- and Z2-line, and the generated pump pressure closes the 2/2-way valve. The pilot valve changes over, when the hydraulic power resulting from the pressure exceeds the power set at the springs (4) at the A- and thus at the Z1-connector. Then, the piston valve (5) lifts the valve piston (6) off the valve seat (7). Thus, the control surface of the 2/2-way valves (2) is depressurised, it opens and connects the lines „P, T“ with each other. Thus, the pump flow is carried pressureless to the tank. Simultaneously, the non-return valve (1) closes and shuts off the backflow from the system. The valve piston (6) remains in the open position until the system pressure at the A-connector falls short of the set pressure value „PE“ minus the value of the switching hysteresis; the 2/2-way valve (2) also remains open for this period.

Valve group for the pump control



Symbol



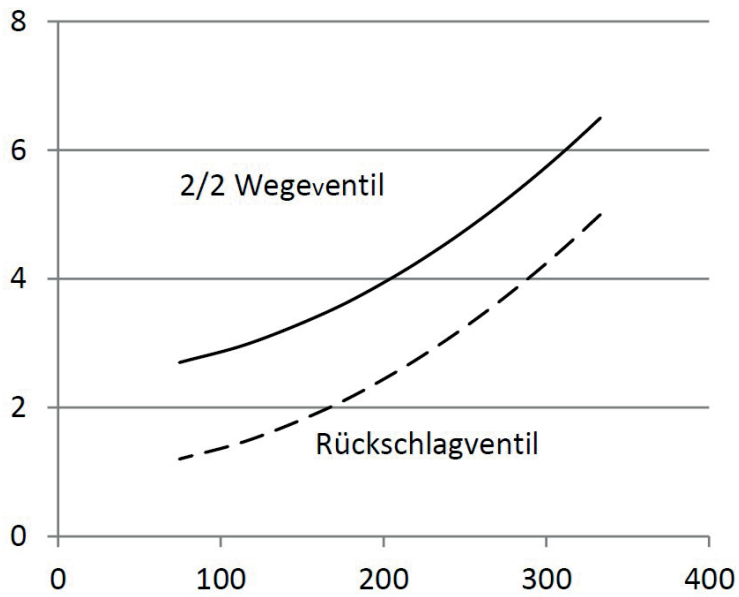
Technical data

measured with HFA medium 97/3%, at 20°C

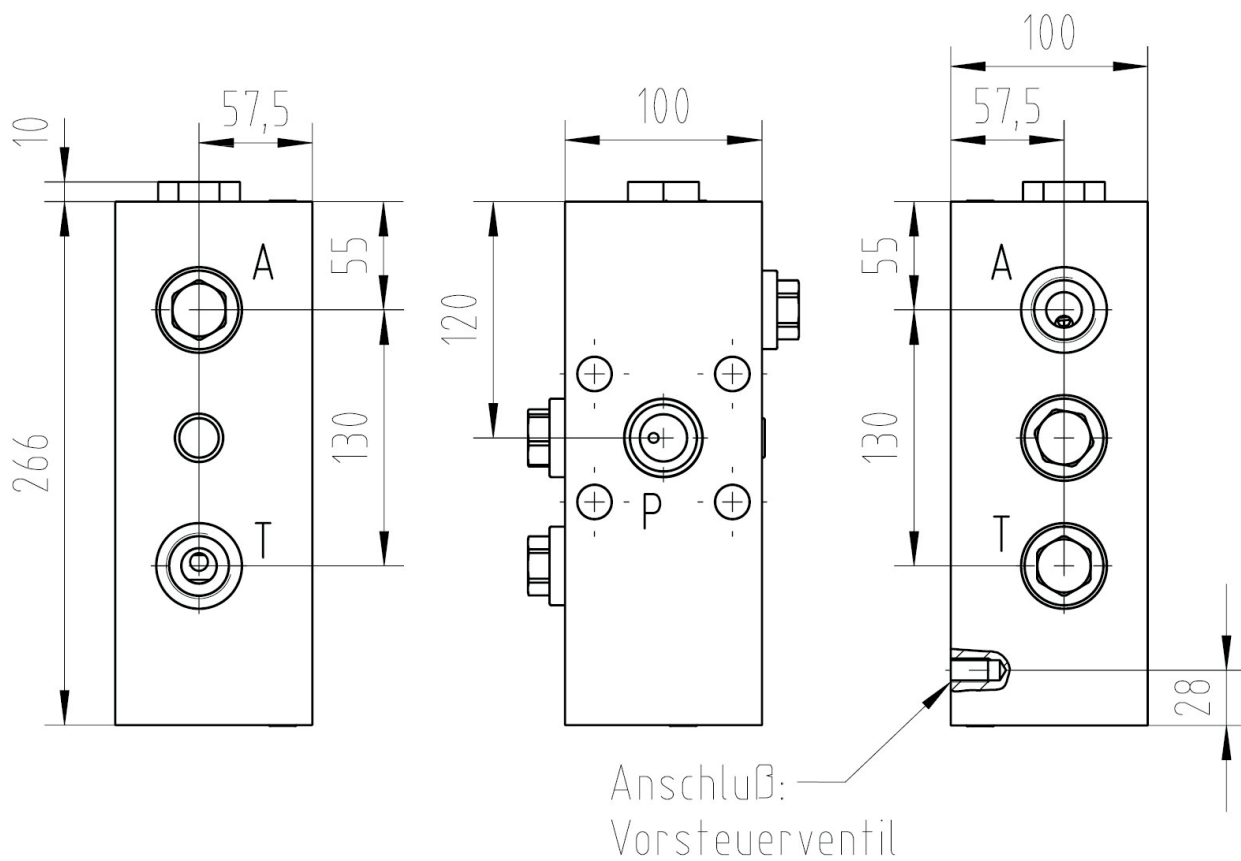
General	
Weight	see Order information
Installation position	any
Ambient temperature	-10 to 50°C (hydraulic fluids, heed standard requirements)
Material Valve parts	Stainless steel, bronze
Material Seals	NBR, PTFE, PUR
Hydraulic	
Pump bypass valve H30, H300	
Hydraulic pressure connector P, A, M	≤ 400 bar
Hydraulic pressure connector X, Z1, Z2	≤ 400 bar
Hydraulic pressure connector Y	≤ 10 bar
Direction of flow	P→T, P→A
Pilot valve V300	
Hydraulic pressure connector X, Z1, Z2	≤ 400 bar
Hydraulic pressure connector Y	≤ 10 bar
Pressure fluid	Water, HFA
- Medium - Temperature range	5 to 40°C
- Medium - Quality	see Hauhinco media requirement, water, HFA
- min. filter fineness connection P, A, T	Filter fineness 100µm
- min. filter fineness connection X, Z1, Z2	Filter fineness 25µm (control pcb with filter inserts)
Pressure fluid	Mineral oil HLP according to DIN51624-2
- Medium - Temperature range	5 to 50°C
- Medium - Quality	Cleanliness class -/19/16 according to ISO 4406
max. switching rate of the valve unit	0,2 Hz
Note: The maximum decrease volume flow of the consumer and the size of the pressure accumulator control the switching rate of the pump circulation control system.	
Use of other pressure fluids on request.	

Pump bypass valve H300

$\Delta p - q_v$ characteristic curves

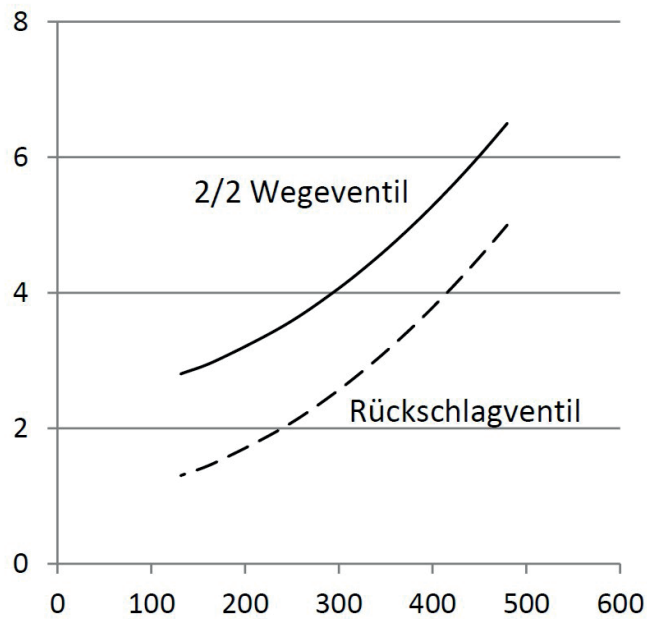


Dimension sheet pump bypass valve H300

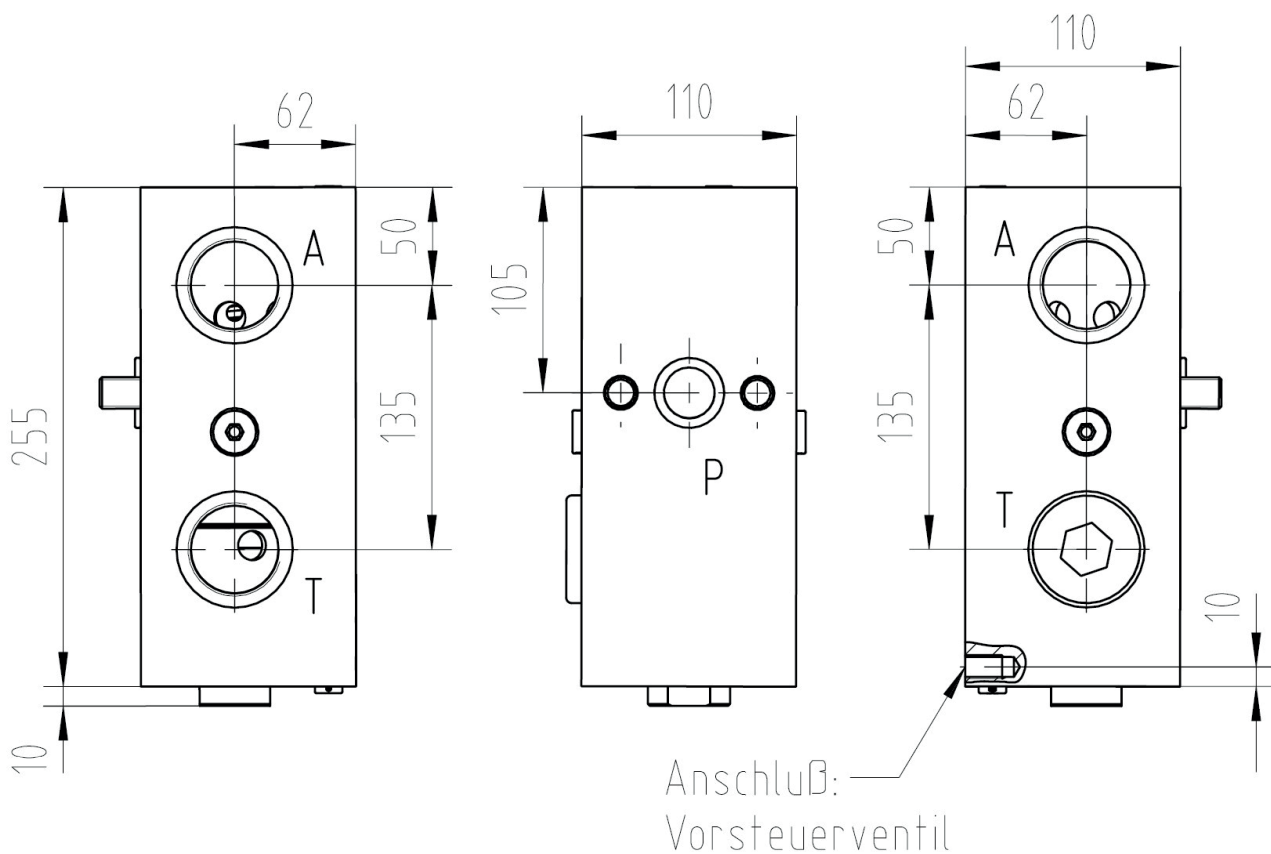


Pump bypass valve H30

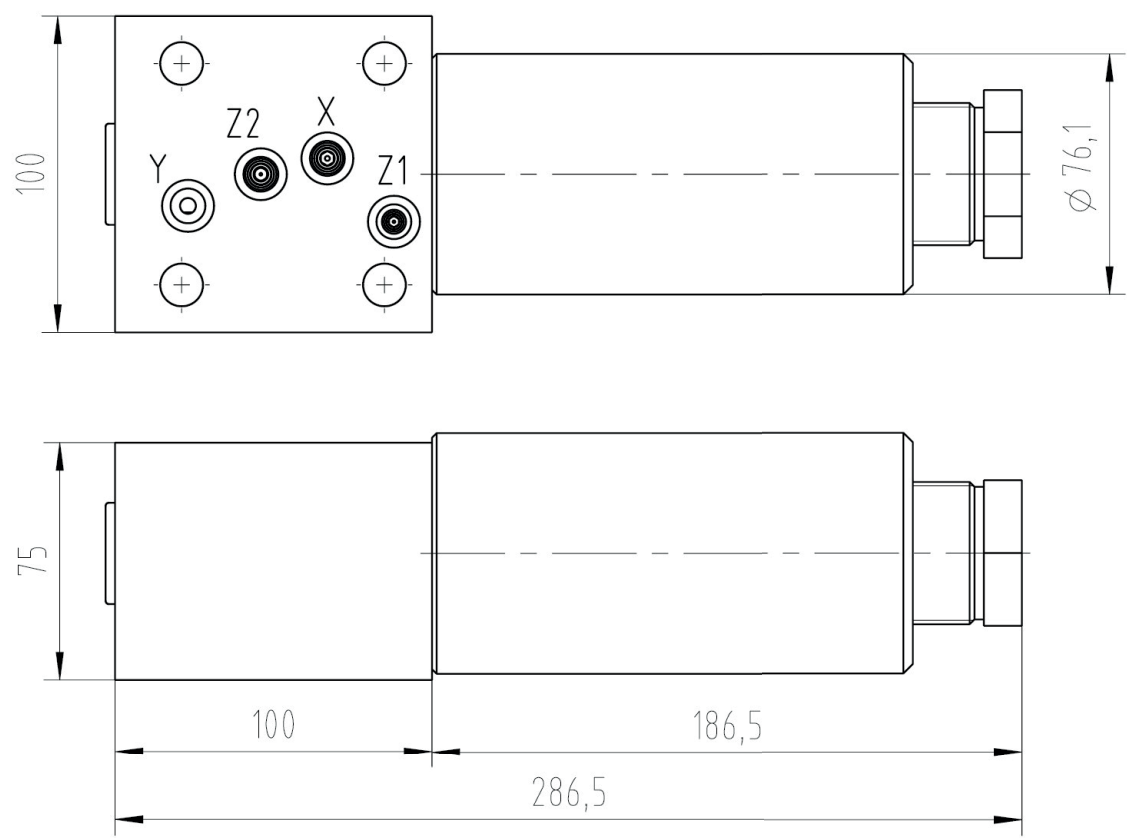
$\Delta p - q_v$ characteristic curves



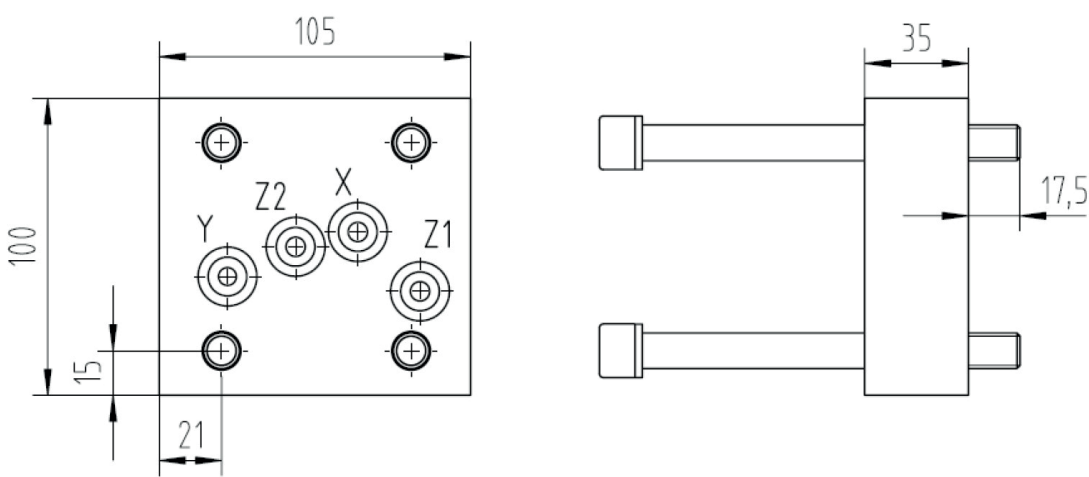
Dimension sheet pump bypass valve H30



Pilot valve V300



Control pcb with filter



Order information

Included in the scope of supply
Mounting screws of the valves

Designation	Nominal size	Weight [kg]	Setting range [bar]	Switching hysteresis	Article number
Pump bypass valve H300	DN25	20,0			6264956
Pump bypass valve H30	DN30	20,0			6264948
Pilot valve V300/10		10,0	230-400	10%	5100682
Pilot valve V300/20		10,0	230-400	20%	5100658
Control pcb with filter		3,0			6328423