

# Sequence valves

Nominal diameter 4, pmax. 500 bar, with integrated check valve

700-2  
Issue: 11/2023

## Description:

The sequence valves are used in the clamping hydraulics as a directly controlled sequence valve.

The compact design allows space-saving installation directly in the fixture. The sequence valve is a poppet valve which operates without leakage oil compared to a spool valve. The inlet and outlet pressures of the sequence valves are always identical. As a result this type of valve is ideal for use in sequence control systems.

With single-acting cylinders, only one supply line from the pressure supplier (see data sheet 430-1) is required for operation.

The design allows valve combinations that can be flanged together to form a block using a common P-connection and standard parts.

## Pressure medium:

Hydraulic oil according to DIN 51524 Tl.1 to 3; ISO VG 10 to 68 according to DIN 51519

## Valve combinations:

Combinations of sequence valves are assembled from an inlet valve (P) and a maximum of four flange-mounted series valves. These are supplied with pressure oil through holes. Sealing between the valve housings is provided by O-rings. In order to ensure proper functioning with sequence controls, there should be a certain minimum pressure difference from valve to valve.

This should be set higher for the different versions:

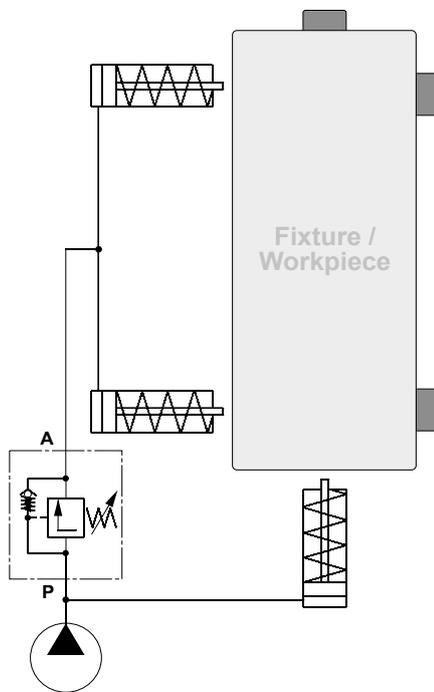
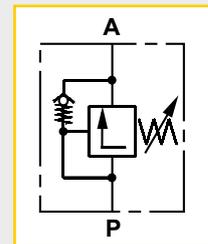
25 bar for the → ZSV-160... version

35 bar for the → ZSV-315... version

50 bar for the → ZSV-500... version



Webcode: 070002



## Application example:

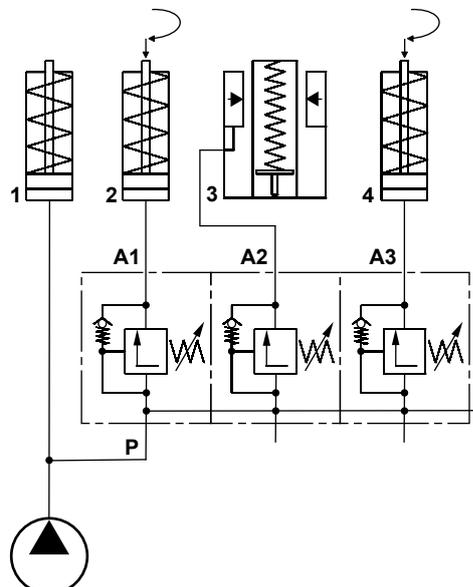
The drawing shows symbolically a clamping device as it can be used e.g. in manufacturing. When pressure is applied, the single-acting cylinder [1] clamps.

When the set opening pressure has been reached, the inlet valve [A1] opens and actuates the swing clamp [2].

The support element [3] clamps the support piston as soon as the opening pressure in the series valve [A2] is reached.

The series valve [A3] actuates the swing clamp [4] to complete the clamping process.

When the device is released, the pressure oil flows back to the pressure generator via the integrated check valves.



## Advantages:

- ☒ space-saving installation options
- ☒ quick installation due to flange
- ☒ ideal for pressure sequence control
- ☒ operation with one supply line possible
- ☒ valve combinations possible
- ☒ Integrated check valve

## Accessoires (optional):

Designation: Order Nr.

### Threaded rods:

M5 x 072 (für 2 valves)	7005-024
M5 x 102 (für 3 valves)	7005-025
M5 x 132 (für 4 valves)	7005-026
M5 x 162 (für 5 valves)	7005-027

### Sealing rings:

O-Ring 7 x 1,5	6010-002
O-Ring 8 x 1,5	6011-002
U-seal 7,3 x 10,2	6006-003

### Screws:

Cylinder head screw	
M6 x 12, DIN 912	7006-022

We also design and manufacture customized variants!

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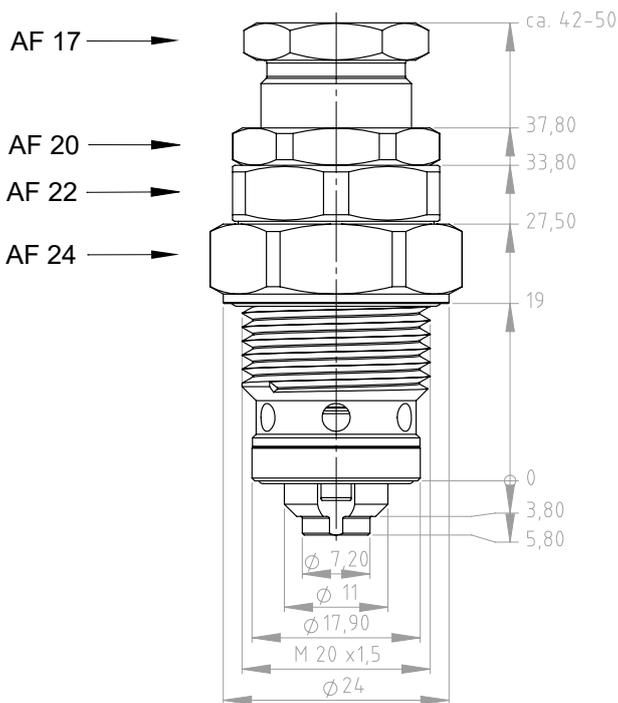
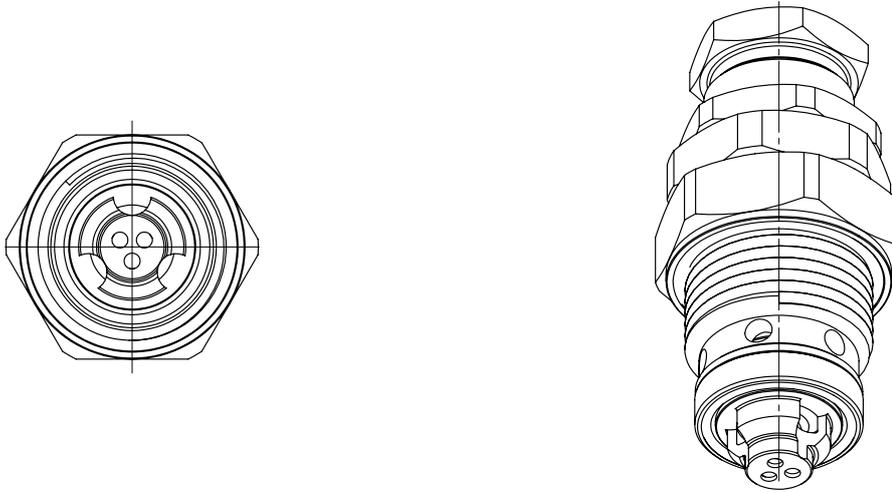
+49 6401 225999-0

sales@hydrokomp.de

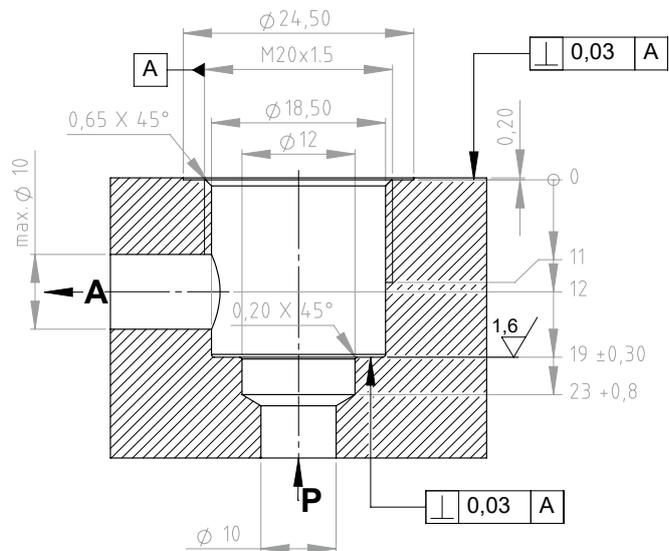
Siemenstr. 16  
35325 Mücke (Germany)

www.hydrokomp.de

Technology that connects



Installation contour:

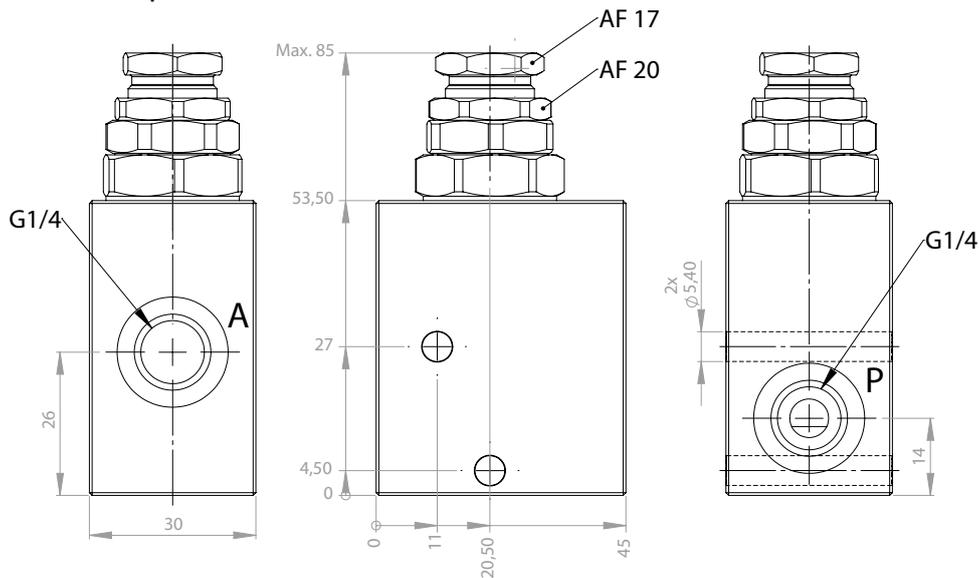


Technical data:

Directly controlled sequence valve, threaded type				
max. Operating pressure	[bar]	500	500	500
max. Volume flow	[l/min]	12	12	12
<b>Adjusting range</b>	[bar]	<b>15-80</b>	<b>30-160</b>	<b>60-315</b>
Pressure change per revolution	[bar]	9	15	32
Weight approx.	[kg]	0,1	0,1	0,1
<b>Order number</b>		<b>ZSV-080-5-009</b>	<b>ZSV-160-5-009</b>	<b>ZSV-315-5-009</b>
				<b>ZSV-500-5-009</b>



Threaded port G1/4

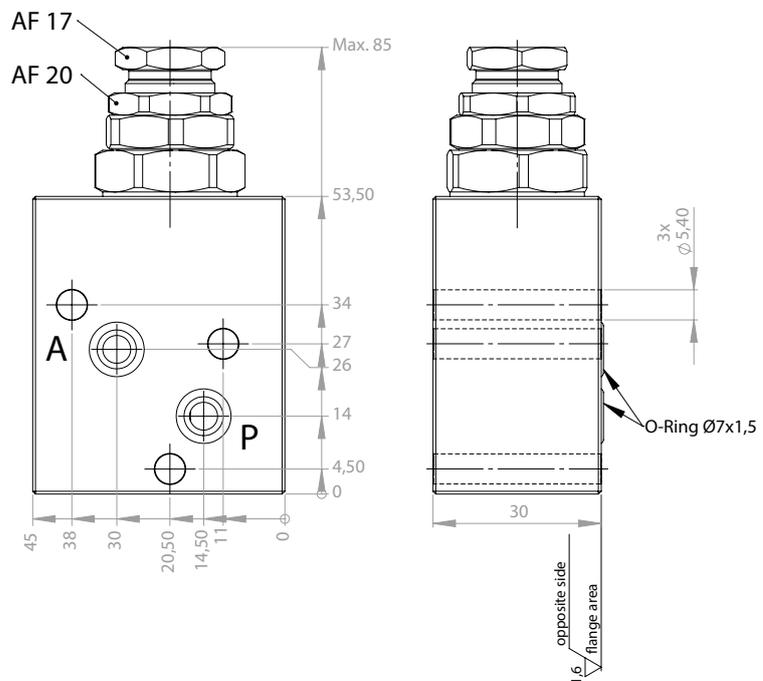


Technical data:

Directly controlled sequence valves with threaded connection

max. Operating pressure	[bar]	500	500	500	500
max. Volume flow	[l/min]	12	12	12	12
<b>Adjusting range</b>	[bar]	<b>15-80</b>	<b>30-160</b>	<b>60-315</b>	<b>100-500</b>
Pressure change per revolution	[bar]	9	15	32	49
Weight approx.	[kg]	0,60	0,60	0,60	0,60
<b>Order number</b>		<b>ZSV-080-5-021</b>	<b>ZSV-160-5-021</b>	<b>ZSV-315-5-021</b>	<b>ZSV-500-5-021</b>

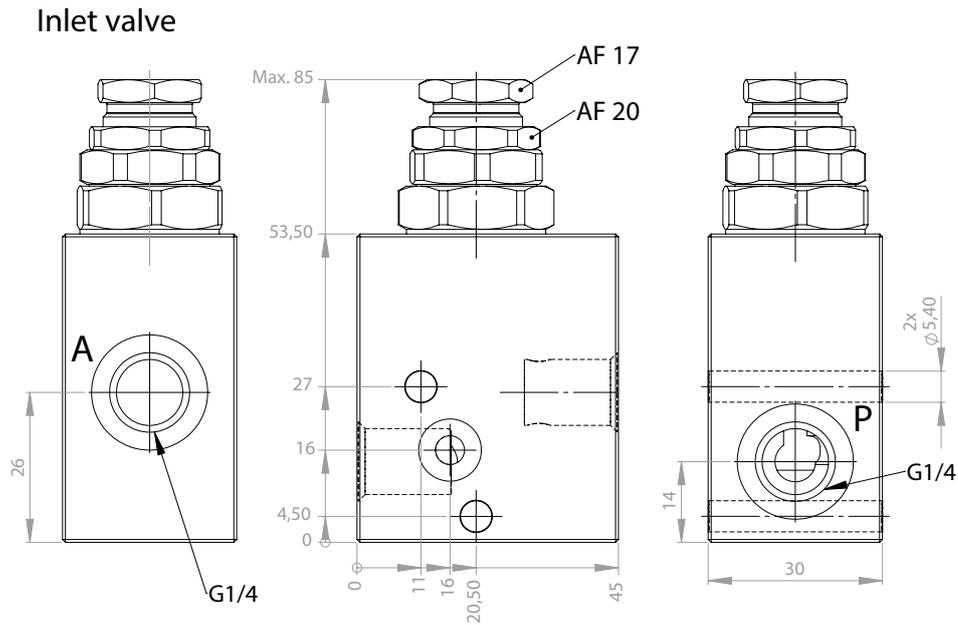
Manifold connection with O-ring



Technical data:

Directly controlled sequence valves for manifold connection with O-ring

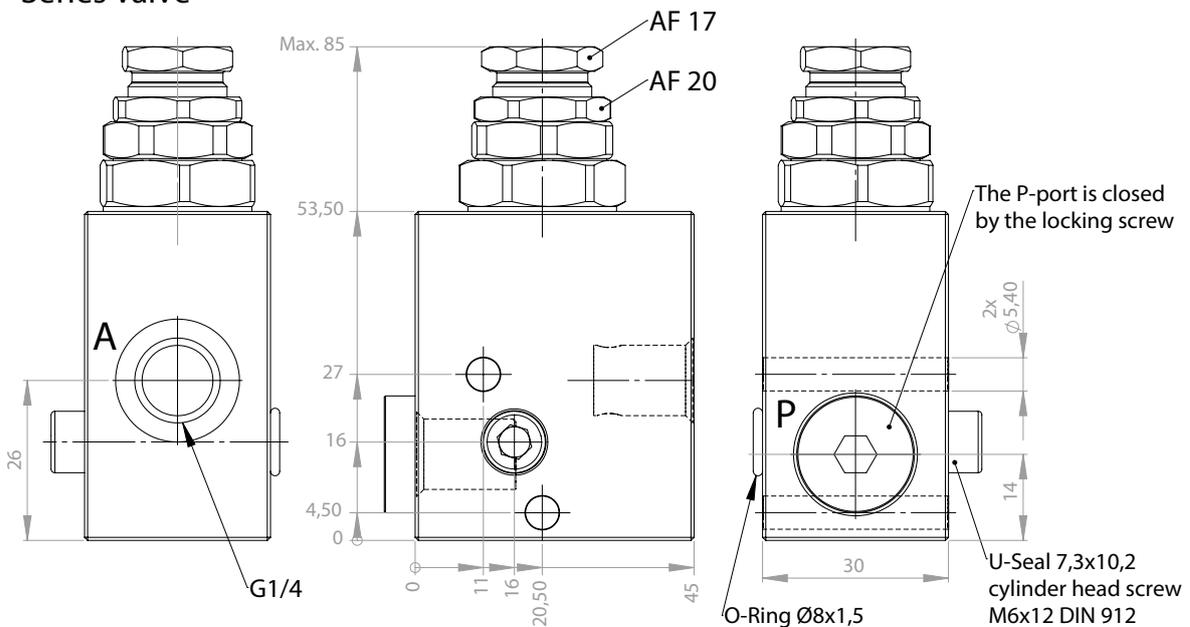
max. Operating pressure	[bar]	500	500	500	500
max. Volume flow	[l/min]	12	12	12	12
<b>Adjusting range</b>	[bar]	<b>15-80</b>	<b>30-160</b>	<b>60-315</b>	<b>100-500</b>
Pressure change per revolution	[bar]	9	15	32	49
Weight approx.	[kg]	0,60	0,60	0,60	0,60
<b>Order number</b>		<b>ZSV-080-5-022</b>	<b>ZSV-160-5-022</b>	<b>ZSV-315-5-022</b>	<b>ZSV-500-5-022</b>



Technical data:

Inlet valve with threaded connection				
max. Operating pressure	[l/min]	500	500	500
max. Volume flow	[bar]	12	12	12
<b>Adjusting range</b>	[bar]	<b>15-80</b>	<b>30-160</b>	<b>60-315</b>
Pressure change per revolution	[kg]	9	15	32
Weight approx.		0,60	0,60	0,60
<b>Order number</b>		<b>ZSV-080-5-023</b>	<b>ZSV-160-5-023</b>	<b>ZSV-315-5-023</b>
				<b>ZSV-500-5-023</b>

Series valve



Screw plugs and sealing rings are included in the scope of delivery.

Technical data:

Series valves with threaded connection				
max. Operating pressure	[bar]	500	500	500
max. Volume flow	[l/min]	30	30	30
<b>Adjusting range</b>	[bar]	<b>15-80</b>	<b>30-160</b>	<b>60-315</b>
Pressure change per revolution	[bar]	9	15	32
Weight approx.	[kg]	0,60	0,60	0,60
<b>Order number</b>		<b>ZSV-080-5-024</b>	<b>ZSV-160-5-024</b>	<b>ZSV-315-5-024</b>
				<b>ZSV-500-5-024</b>