

Valves and Valve systems

Directional valves

All *HF* directional valves are globe valves. Advantage of globe valve constructions compared to cartridge valves is that they are leakage free in the locking position. All directional valves (base and extension valves) are switched electro magnetically. These electromagnetic switches (coils) are also called valve solenoids.

Pressure control valve

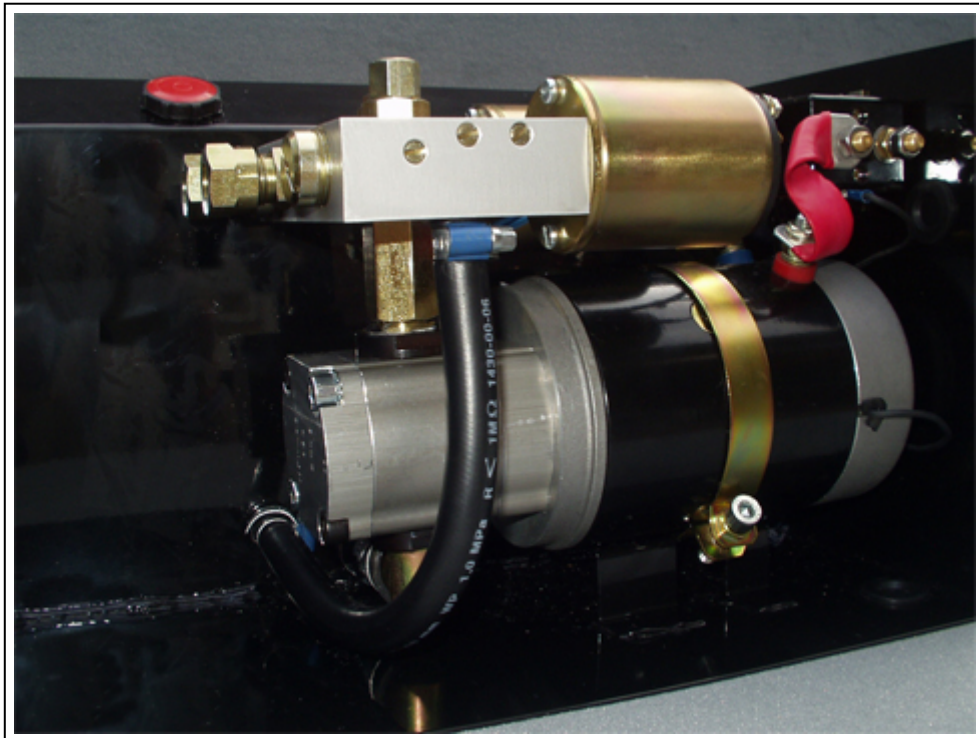
All *HF* base valves systems (HF121, HF199, HF134) have pressure control valves included. Pressure control valves

- protect hydraulic systems from to high pressure
- limit pressure to adjustable level

Pressure control valves are essential security measures for hydraulic systems. Pressure control valves are set to 200 bar. On demand different settings can be made. Settings can be adjusted by customers as well.

Check valves

All *HF* valve systems (HF121, HF199, HF134) have leakage free check valves included. Check valves open oil flow only in one direction. They hold cylinders in position when under load. Check valves are essential security measures in mobile hydraulics.



valve systems for single acting functions (base valve)



Type denomination

HF21

Art.-Nr.: 4121

For one or several single acting functions

(by using 3/2 directional valve HF36)



Type denomination

HF199

Art.-Nr.: 4125

For several single acting functions
(compact construction)

4/3 valve for double acting functions (base valve)



Type denomination

HF127

Art.-Nr.: 4127

For one or several double acting functions, or for combined single and double acting functions

(by using 3/2 directional valve HF36 (extension valve))

Valves

3/2 directional valve (extension valve)



Type denomination

HF136 (change over valve)

Art.-Nr.: 4136

3/2 directional valve

Extension valve for:

HF21 (Art.-Nr. 4121)

(single acting functions)

HF34 (Art.-Nr.: 4134)

(for double acting functions)

Overview on valve combinations

function	base valves	Extension valves
1 x single acting	HF21 (Art.-Nr.: 4121)	—
2 x single acting *		1 x HF 36 (Art.-Nr.: 4136)
1x double acting	HF127 (Art.-Nr.: 4127)	—
1 x single acting 1 x double acting		1 x HF 36 (Art.-Nr.: 4136)
2 x double acting		2 x HF 36 (Art.-Nr.: 4136)
2 x single acting *	HF99 (Art.-Nr.: 4199)	—

* Both signed valve system are used for several single acting function. Directional valve HF99 is a more compact construction. Use directional valves HF21 and HF36 in combination in order to upgrade existing power units.

Valve-Solenoid (electro magnetic coil)



Type denomination

Valve-Solenoid

electro magnetic coil

12HF15

24HF15

Art.-Nr.: 4112 (12 V)

Art.-Nr.: 4124 (24 V)

Compare: 12EM15

24EM15

Valves

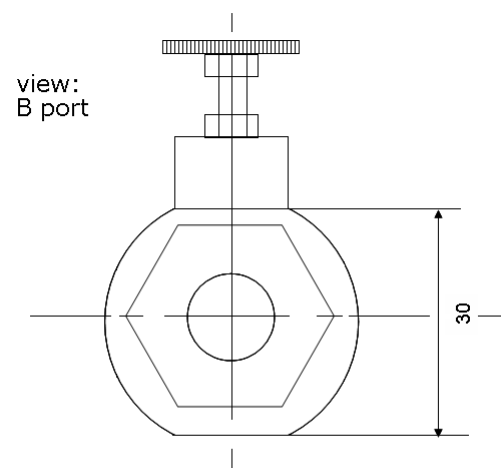
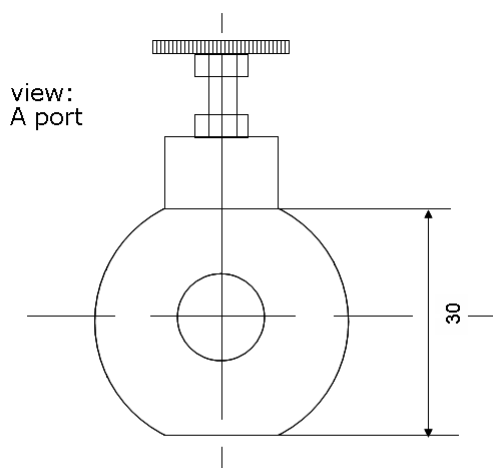
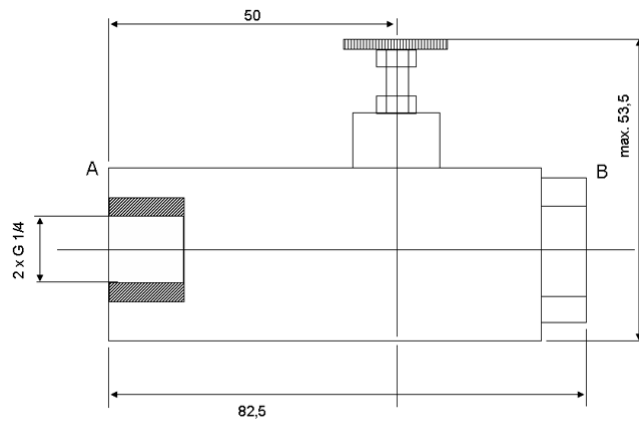
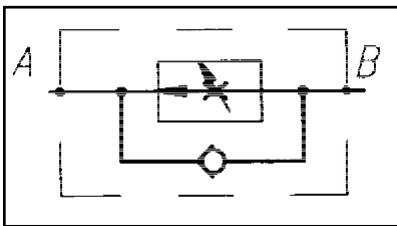
HF45 - Flow control valve



Type denomination

HF45 (flow valve)
 NA45 (replaces HF123)
 Art.-Nr.: 4145
 For flow up to 10 l/min.

HF45c
 Art.-Nr.: 4145c
 for flow up to 30 l/min.



HF500 - valve for cylinder fitting



HF500-24

HF500 – This valve includes a flow control valve.

Valves

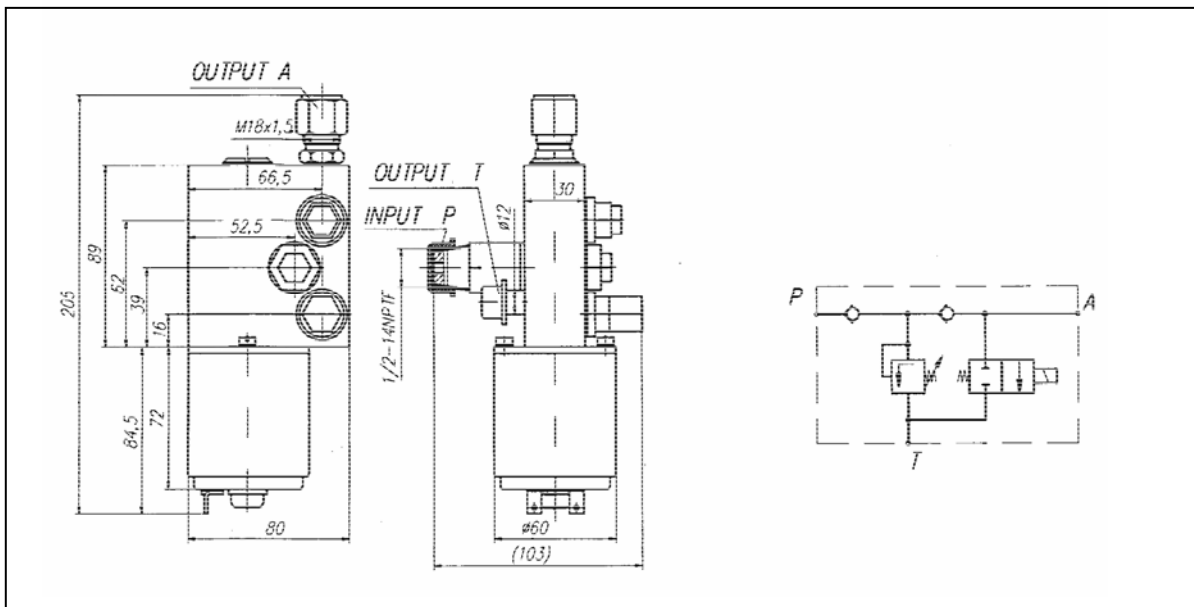
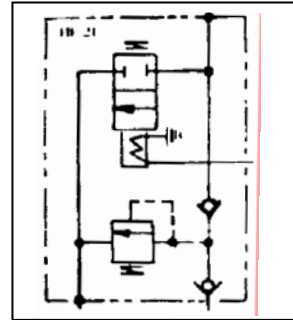
Technical drawing

Type denomination

HF21

Art.-Nr.: 4121

For one or several single acting functions
(by using 3/2 directional valve HF36)



Mounting

On pumps:

1/2" BSP screw thread

On cylinders:

1/4" screw thread

cutting ring prepared (pipe connection)

pipe \varnothing 12mm

Valves

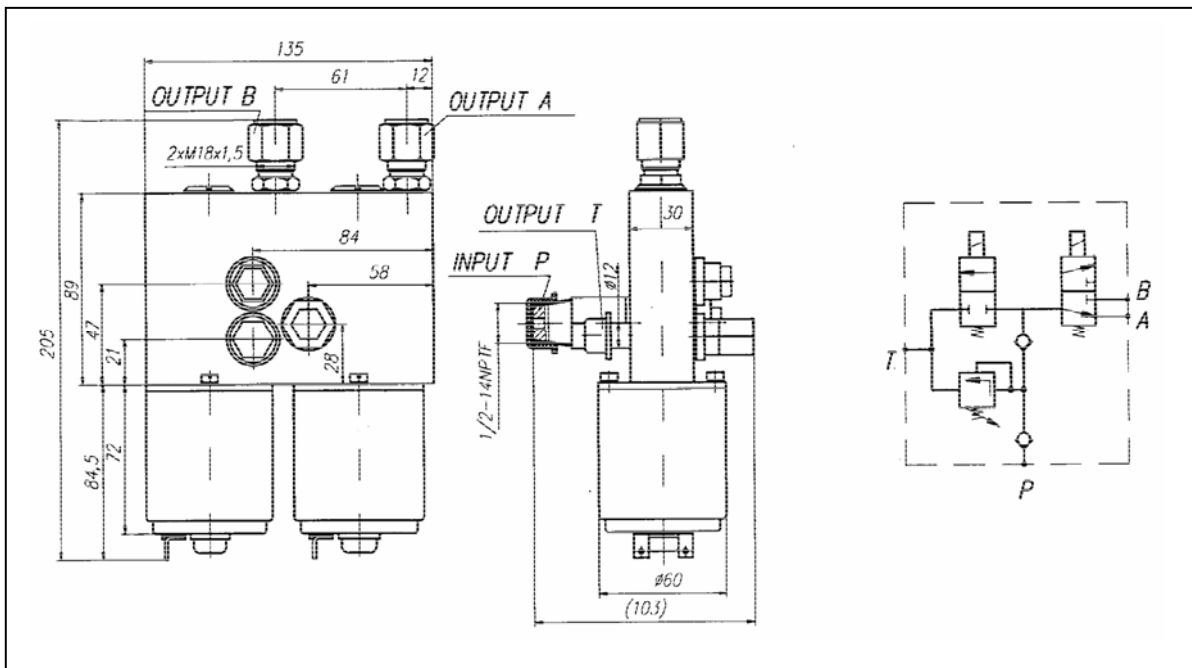
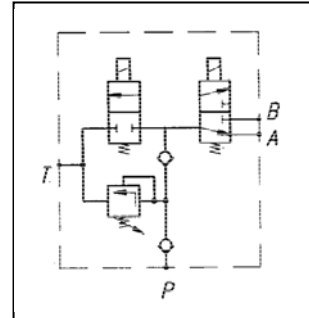
Technical drawing

Type denomination

HF199

Art.-Nr.: 4199

For several single acting functions



Mounting

On pumps:

1/2" BSP screw thread

On cylinders:

1/4" screw thread

cutting ring prepared (pipe connection)

pipe \varnothing 12mm

Valves

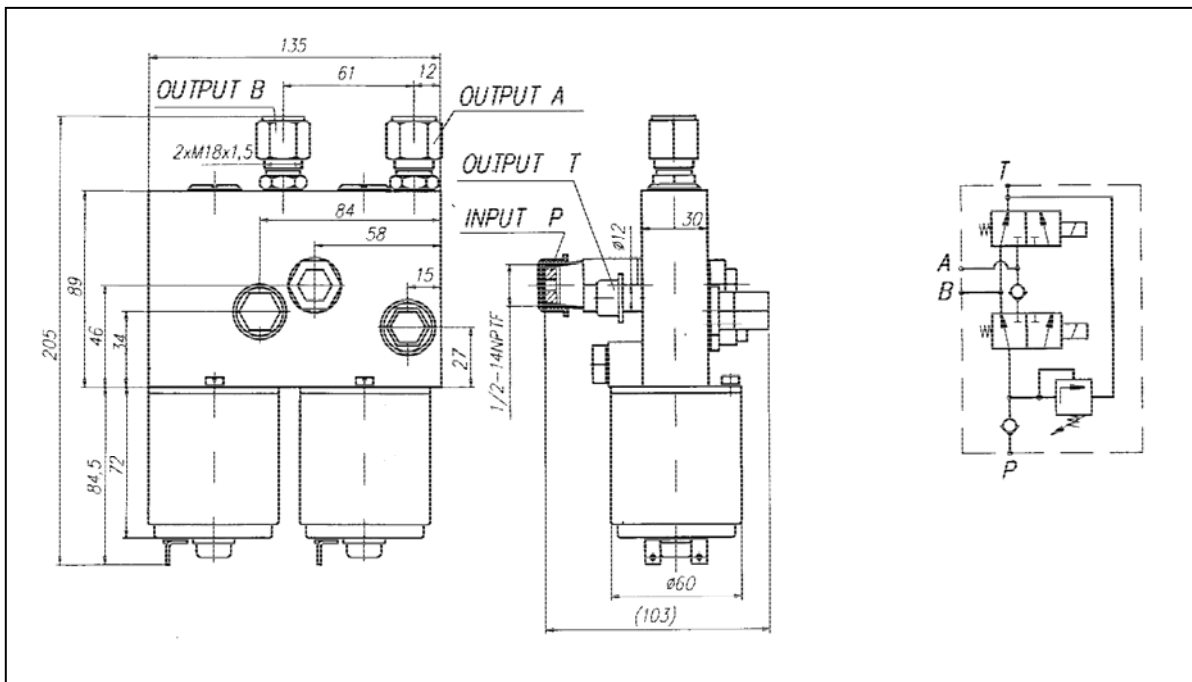
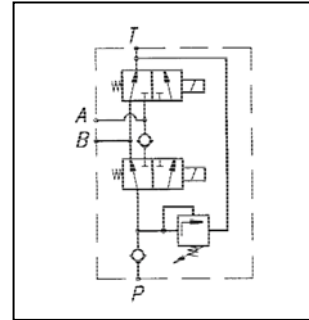
Technical drawing

Type denomination

HF127 (4/3 directional valve)

Art.-Nr.: 4127

For one or several double acting functions;
 or for combined single and double acting functions
 (by using 3/2 directional valve HF36 (extension valve))



Mounting

On pumps:	1/2" BSP screw thread
On cylinders:	1/4" screw thread
	cutting ring prepared (pipe connection)
	pipe \varnothing 12mm

Valves

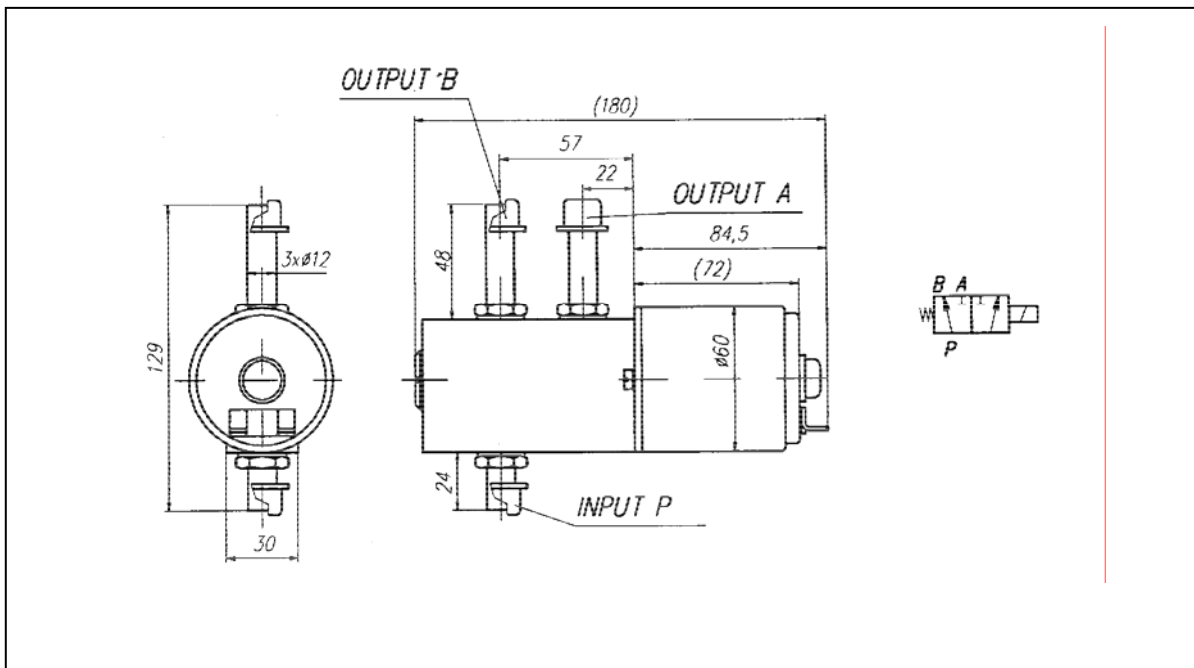
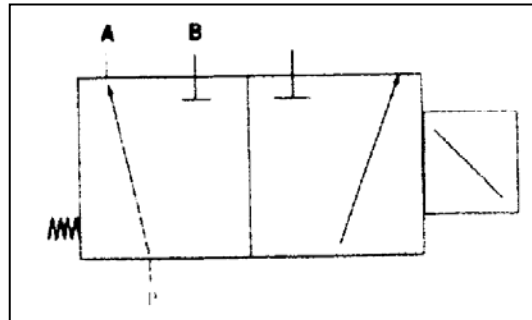
Technical drawing

Type denomination

HF36 (3/2 directional valve)

Art.-Nr.: 4136

Extension valve for HF21
and HF34



Mounting

On base valves:

cutting ring (pipe) $\varnothing 12$ mm

On cylinders:

cutting ring (pipe) $\varnothing 12$ mm