

Selection advice

If the valve is to be screwed directly into a hydraulic cylinder, please order model VSM-11.

If the valve is to be combined with the directional valve of a power pack, please order model VSM-21. (see picture on page 368).

Safety-check valves model VSM

700 bar

These safety-check valves are used for those applications where pressure drops must be avoided (e.g. holding of a lifted load). Depending on the location in a hydraulic circuit, these valves can have different functions. The model VSM-11 can be directly screwed into the oil port of a hydraulic cylinder and works at this location as a "hose break fuse". The design of the VSM-21 is suitable for a combination with VHP directional valves.

At this location the VSM-21 ensures that the pressure is held precisely and that pressure drops caused by operating the directional valve are avoided.

Operation

After closing the relief valve (hand wheel) the cylinder can be advanced via the by-pass. In direction to the cylinder the valves always have free flow. The built-in check valve ensures that a pressurized cylinder (e.g. a lifted load) is held precisely in stop position.

A smooth lowering speed can be adjusted by opening the throttle valve (hand wheel) in order to relieve the pressure. A safety pressure valve protects the cylinder from being overloaded by external loading.

Technical data model VSM

| Model | EAN-No. 4025092* | Operating pressure max. | Control | Oil-port cylinder side A | Oil-port pump side B | Width mm | Weight kg |
|--------|---------------------|-------------------------|-------------|--------------------------------|----------------------------|-------------|--------------|
| VSM-11 | *157797 | 700 | Check valve | 3/8-18 NPT outer | 3/8-18 NPT inner | 6 | 0.9 |
| VSM-21 | *158442 | 700 | Check valve | 3/8-18 NPT inner | 3/8-18 NPT outer | 6 | 1.0 |

Dimensions model VSM

| Model | VSM-11 | VSM-21 |
|------------|--------|--------|
| Length, mm | 75 | 75 |
| Width, mm | 25 | 25 |
| Height, mm | 100 | 100 |

Hydraulic symbol

Cylinder A Pump



Throttle-/Shut-off valves model VHM

700 bar

These valves are used to shut-off hydraulic lines especially in multiple cylinder systems. The needle valve VHM-1 also allows to throttle an oil flow especially in connection with lifting applications.



Technical data model VHM

| Model | EAN-No. 4025092* | Operating pressure max. | Control | Oil ports both ends | Width | Weight |
|-------|---------------------|-------------------------|---------|------------------------|-------|--------|
| | | bar | | | mm | kg |
| VHM-1 | *154819 | 700 | Needle | 3/8-NPT inner | 6 | 0.4 |
| VHM-2 | *154963 | 700 | Ball | 3/8-NPT inner | 6 | 0.9 |

Dimensions model VHM

| Model | VHM-1 | VHM-2 |
|------------|-------|-------|
| Length, mm | 75 | 75 |
| Width, mm | 28 | 45 |
| Height, mm | 100 | 75 |

Hydraulic symbol

