


# VSM
# Safety-check valves

## 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.

## 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 410).

## 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 VSM

| Model | Art.-No. | Operating pressure max. bar | Control | Oil-port cylinder side A | Oil-port pump side B | Width mm | Weight kg |
|---|---|---|---|---|---|---|---|
| **VSM-11** | N14100921 | 700 | Check valve | 3/8-18 NPT outer | 3/8-18 NPT inner | 6 | 0.9 |
| **VSM-21** | N14100972 | 700 | Check valve | 3/8-18 NPT inner | 3/8-18 NPT outer | 6 | 1.0 |

## Dimensions VSM (housing incl. hand wheel)

| Model | VSM-11 | VSM-21 |
|---|---|---|
| Length, mm | 65 | 65 |
| Width, mm | 60 | 60 |
| Height, mm | 110 | 110 |

Hydraulic symbol VSM-21

