

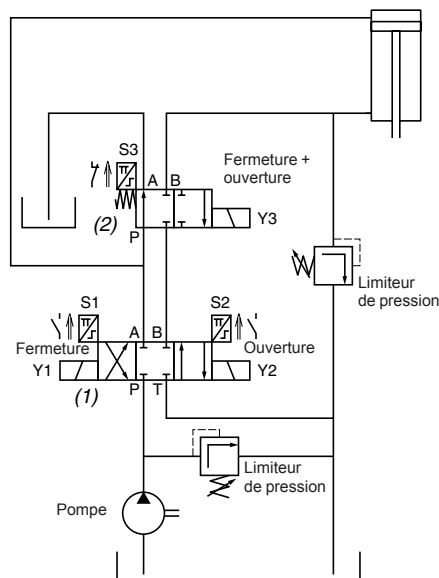
### Operating principle

Safety module **XPSPVT** is specifically designed for monitoring hydraulic safety system valves which control the movements of potentially dangerous machines.

The operating principle of this module is explained in the circuit diagram of a hydraulic safety system for linear presses (see below).

Hydraulic safety system circuit operating on a linear press.

Monitoring of valves in position 0.



(1) 3 position hydraulic valve.

(2) 2 position hydraulic valve.

This hydraulic safety system features a 3 position piston which controls the up and down stroke of the operating cylinder. The circuit is equipped with a safety valve to complete the redundant system. This circuit must be activated to enable the up and down stroke of the cylinder.

If either of the 2 pistons becomes defective (for example, due to a broken spring or to oil contamination), and the valve piston shifts from its normal position towards the open position, the **XPSPVT** module will detect it and prevent resumption of the piston stroke.

Proximity sensors integrated in the valve to detect the piston positions and connected to the **XPSPVT** module must be damped when the valve coils are in the de-energised state (zero position).

The sensor circuits of the **XPSPVT** module are designed to allow connection of NPN and PNP proximity sensors or sensing components. Either 2-wire or 3-wire types can be used.

### Maximum achievable safety level

- PL e/Category 4 conforming to EN/ISO 13849-1,
- SILCL 3 conforming to EN/IEC 62061

### Product certifications

- UL
- CSA
- TÜV

### References

Description	Display	Supply	Reference	Weight kg/ lb
Safety module for dynamic monitoring of hydraulic valves on linear presses	8 LEDs	24 V $\overline{\text{---}}$	<b>XPSPVT1180</b>	0.540/ 1.190



XPSPVT1180