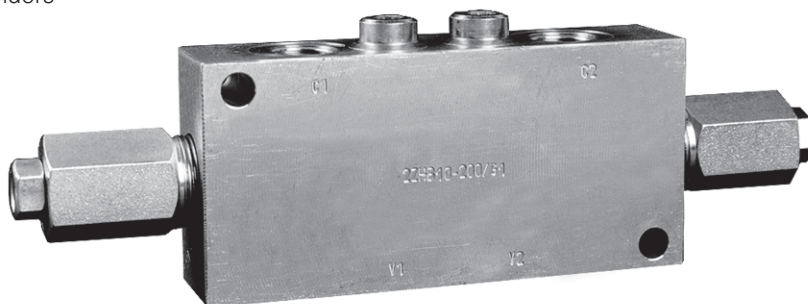
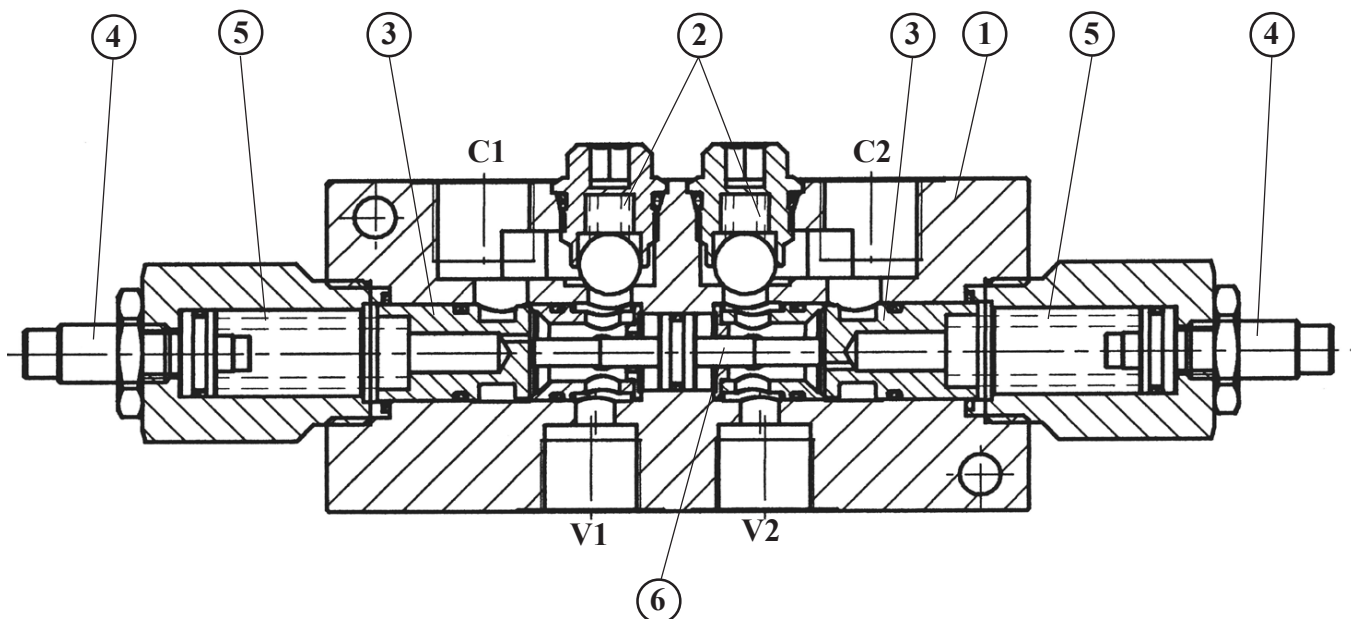


APPLICATION

Valve type 2 ZHB 10 is used in hydraulic systems as a double check valve being a safety valve for excessive pressure from the side of a cylinder. The valve fulfils also a purpose of hydraulic lock with adjustable safety pressure. 2 ZHB10 is mainly intended for operating with double acting cylinders and serves to control their movements.



DESCRIPTION OF OPERATION



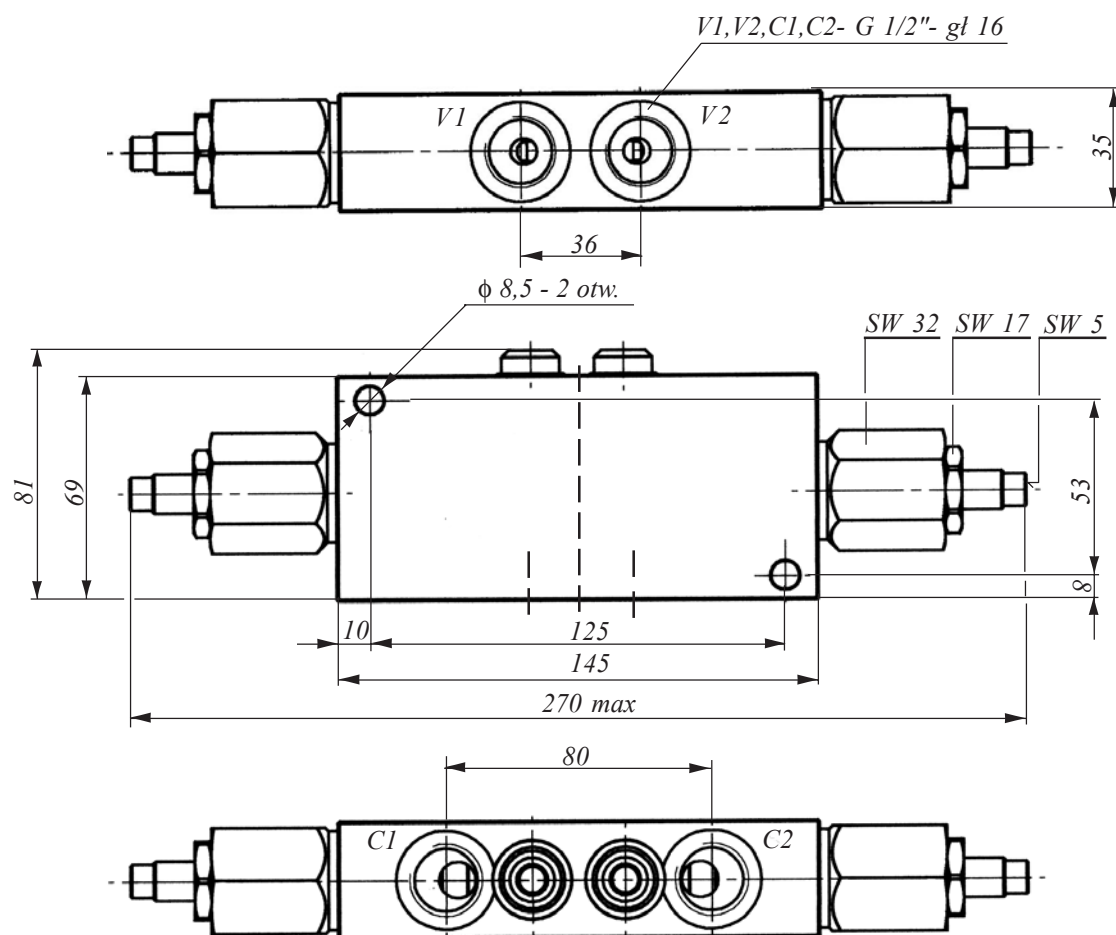
In a housing 1 there are two check valves 2 and two return/pressure relief valves. For lines V1 to C1 and V2 to C2 the valve is open (free flow). Flow in line C1 to V1 is closed by the check valve 2 and the adjustment of the return/pressure relief valve 3. Oil flow with pressure set by a screw 4 in line V2 to C2 pushes a control spool 6 which opens the return/pressure relief valve 3 and thus opens line C1, V1. In the same way the valve operates for line C2, V2.

Additional safety function against overload for the cylinder ports C1, C2 is performed by the spool 3 which lifts in case of high pressure at ports C1 (C2). The pressure acts on annular surface (difference between loading and closing diameters) of the spool 3 and removes it. The pressure of forced opening and relief are controlled by the tension of a spring 5 via adjustment 4. Both pressures are in correlation.

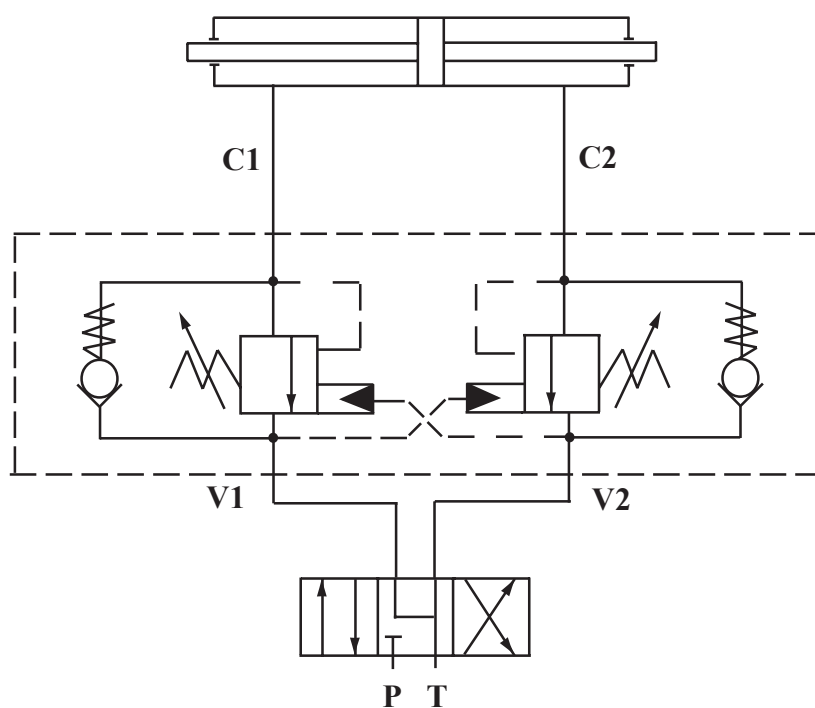
TECHNICAL DATA

Hydraulic fluid	Mineral oil or phosphate ester
Nominal fluid viscosity	37 mm ² /s at temp. of 328 K
Viscosity range fluid	2,8 to 380 mm ² /s
Optimum working temperature (fluid in a tank)	(313 - 328 K) 40 to 55 °C
Fluid temperature range	(243 - 343 K) -30 to 70 °C
Required fluid filtration	16 µm
Recommended fluid filtration	10 µm
Maximum working pressure	29 MPa
The range of forced opening adjustment (p _v)	2,0 to 4,5 MPa
The range of pressure adjustment at relief function (p _c)	13 • p _v

OVERALL DIMENSIONS



GRAPHICAL SYMBOL



HOW TO ORDER

Orders coded in the way showed below should be forwarded to the manufacturer.

2 ZHB 10 / 12

PONAR WADOWICE S.A.
ul. Wojska Polskiego 29
34-100 Wadowice
tel. 033/ 823 39 43, 823 30 41
fax 033/ 873 48 80
e-mail: ponar@ponar-wadowice.pl

