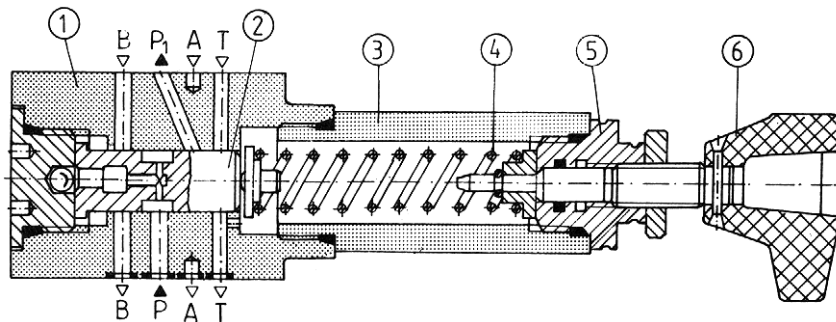




Pressure reducing valves type UZRC 10 are direct operated valves in sandwich plate design. They are used to maintain pressure behind the valve constant on condition that pressure in front of the valve is higher. The valve may also be applied where undesirable pressure increase behind the valve could appear. An additional overflow controlling an excessive pressure increase is then open.

**DESCRIPTION OF OPERATION**

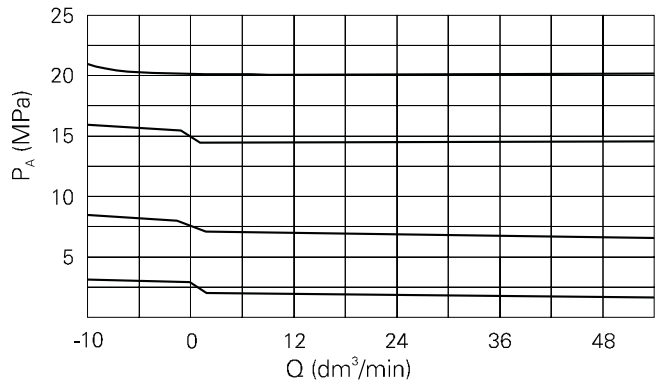


There is the spool 2 in the housing 1. The spool is affected by the reduced pressure on one side and the force of the spring 4 dependent on its deflection on the other. The spring force is set by turning the hand knob 6 of the setting element 5 screwed in the sleeve 3. If pressure exceeds the value set, the spool moves and closes flow line P.

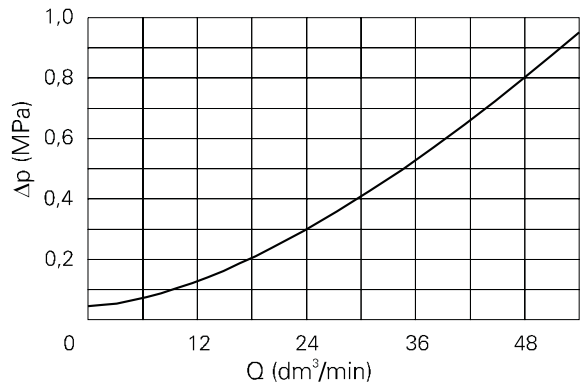
That will be followed by larger restriction of flowing fluid resulting in limiting the pressure behind the valve. If the pressure continues to rise P1, the connection P to P1 is cut off. The further movement of the spool causes the overflow from P1 to T to open.



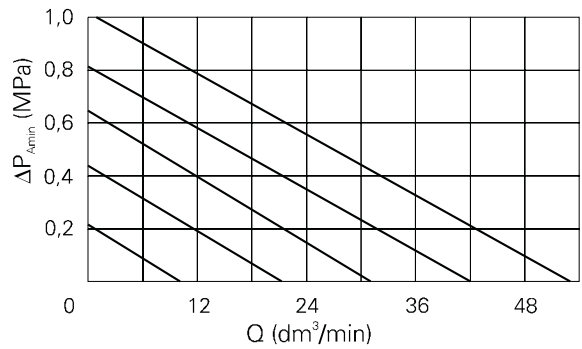
**PERFORMANCE CURVES,** measured at  $v = 41 \text{ mm}^2/\text{s}$  and  $T = 323 \text{ K}$



$P_A = f(Q)$  - output pressure in relation to flow rate



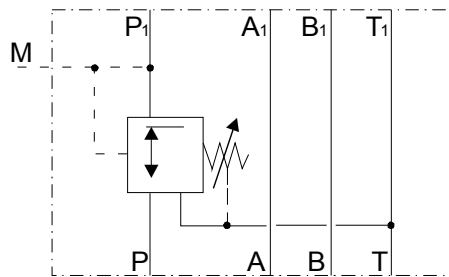
$\Delta p = f(Q)$  - pressure drop at check valve in relation to flow rate.



$\Delta P_{Amin} = f(Q)$  - effect of flow changes in line A - A<sub>1</sub> or P - P<sub>1</sub> on output pressure P<sub>A</sub>.

If, for example pressure at port is set at 3 MPa with flow of 20 dm<sup>3</sup>/min, output pressure increases to P<sub>A</sub> = 3.4 MPa as flow decreases towards Q = 0 dm<sup>3</sup>/min.

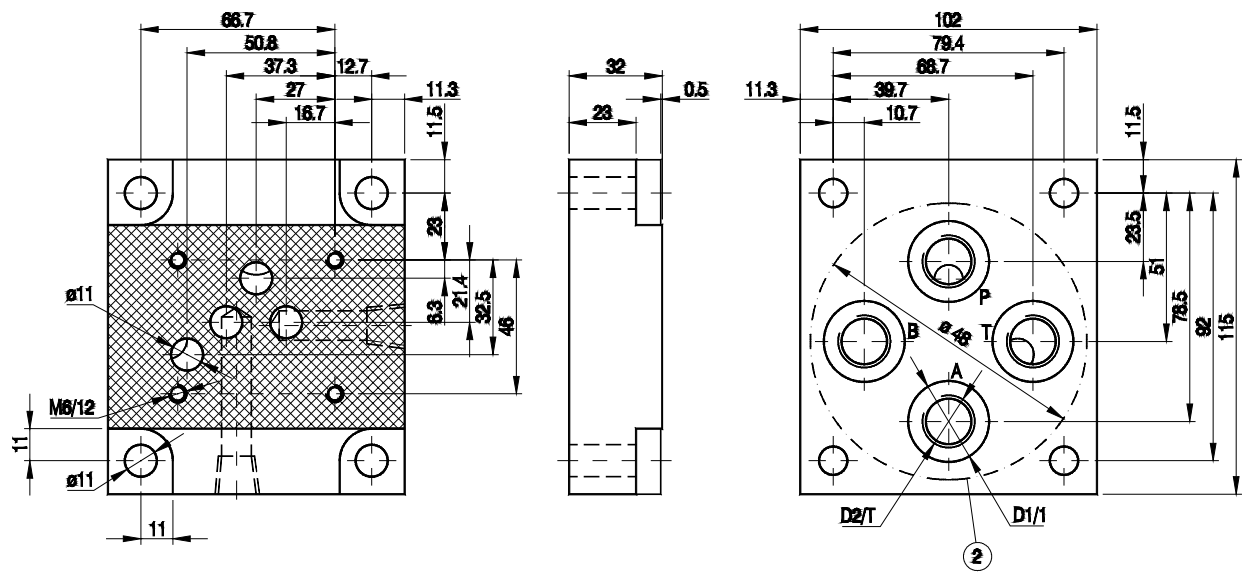
**HYDRAULIC SCHEMES**



UZRC 10/22-...-Y-...-P-...



## CONNECTION DIMENSIONS FOR SUBPLATE



Type	D1	D2	T	Typ	D1	D2	T
G 89/ 01	25	G 1/ 4	12	G 89/ 02	24	M14 x 1,5	15
G 66/ 01	28	G 3/ 8	12	G 66/ 02	28	M16 x 1,5	15
G 67/ 01	34	G 1/ 2	14	G 67/ 02	36	M22 x 1,5	17

Weight of subplate 2,3 kg

Fixing the valve to the subplate by means of 4 bolts  
M6 x L - 10.9 PN-74/M-82302 ( DIN 912 - 10.9 ) long according to the number of mounted components.  
Tightening torque - 47 Nm.  
Subplate and fixing bolts have to be ordered separately.

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

