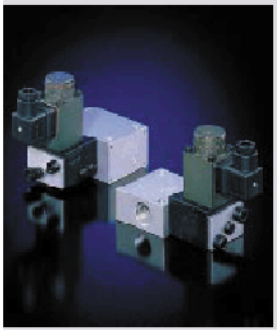
Pressure valves

HAWE HYDRAULIK

Proportional pressure reducing valves type PDM

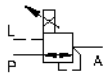
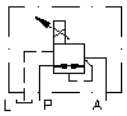
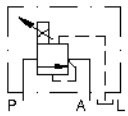
The task of pressure reducing valves in a hydraulic circuit is to maintain a rather constant outlet pressure despite a higher and changing inlet pressure. They are used when an hydraulic circuit with a higher pressure level (primary side) is to supply another circuit with a lower pressure level (secondary side), without affecting the higher pressure in the primary circuit.

There is a design related leakage flow which has to be led pressureless via port R to the tank. A reversal of the direction of flow is possible up to approx. 50% of Q_{max} . A by-pass check valve has to be provided for higher reversed flow. The pressure reducing valves size 11 and 21/22 feature an override compensation i.e. acting like a pressure limiting valve, if the pressure on the secondary side exceeds the set pressure e.g. due to external forces.



Nomenclature:	Prop. pressure reducing valve (direct controlled or piloted)
Design:	Individual valve for pipe connection Individual valve, manifold mounting
Adjustability:	Electro-proportional
$p_{max\ P}$: **$p_{max\ A}$:**	420 bar 5 ... 350 bar
Q_{max}	120 l/min

Basic types and general parameters

Basic type and Function	**PDM** direct controlled			piloted		**Symbol** direct controlled	piloted
size	**11**	**21/22**	**3**	**4**	**5**	valve for pipe connection	
Flow Q_{max} (l/min)	12	20	40	70	120		
Pressure range: $p_{max\ A}$ (bar)	41: 80 42: 130 43: 200 44: 320	41: 45 42: 70 43: 110 44: 180		N: 130 M: 200 H: 350		manifold mounting valve	
Tapped ports [1]	G 1/4	G 1/4 G 3/8	G 1/2	G 3/4	G 1		
Leakage flow Q_{leak} (l/min)	< 0,5	< 0,5		< 0,8			

[1] version for pipe connection

Solenoid voltage

- 12V DC, 24V DC
- Control via proportional amplifier (see also "Additional information ")