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Pressure valves



Miniature pressure reducing valves type ADC, AM etc.

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. These valves are intended for the supply of control circuits with low flow requirements.

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. 30% of Q_{max} . A by-pass check valve has to be provided for higher reversed flow. These pressure reducing valves feature a 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: Pressure reducing valve

Design: Screw-in valve
Valve for pipe connection

Adjustability: Fixed (non-adjustable)

$p_{max P}$: 300 ... 400 bar

$p_{max A}$: 15 ... 70 bar

Q_{max} : 2 ... 10 l/min

Basic types and general parameters

Basic type	ADC 1	AM 1	ADM 1 ¹⁾	ADME 1	Symbol
Flow	2	2	8 ... 10	8	screw-in valve pipe installation
Q_{max} (l/min)					
max. inlet pressure	300	400	300	300	
p_{max} (bar) at P					
Outlet pressure (bar) at A	15	20	15	15	
	25	50	20	20	
			30	30	
			70	70	
Tapped ports ²⁾	G 1/4	G 1/4	G 1/4	-	

¹⁾ only in version for pipe connection
²⁾ version for pipe connection

Additional versions

- Type AM 1 also available as manifold mounting valve

Order examples

ADC 1 - 25

Pressure reducing valve type ADC 1, screw-in valve, pressure at A approx. 25 bar

ADM 1 - 70

Pressure reducing valve type ADM 1, version for pipe connection, pressure at A approx. 70 bar

AM 1 - 20 - 1/4

Pressure reducing valve type AM 1, version for pipe connection (tapped ports G 1/4), pressure at A approx. 20 bar