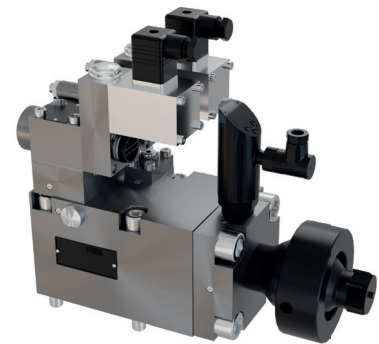


# Proportional pressure reducing valve

DN16, PN400, 20-380bar

## Features

- Proportional controlled pressure reducing valve
- All parts are made of corrosion-resistant materials, and they are easily replaceable.
- Hydraulic accumulator as a preload element, adjustable accumulator pressure by proportional pilot valves
- Attachment, structural plate form

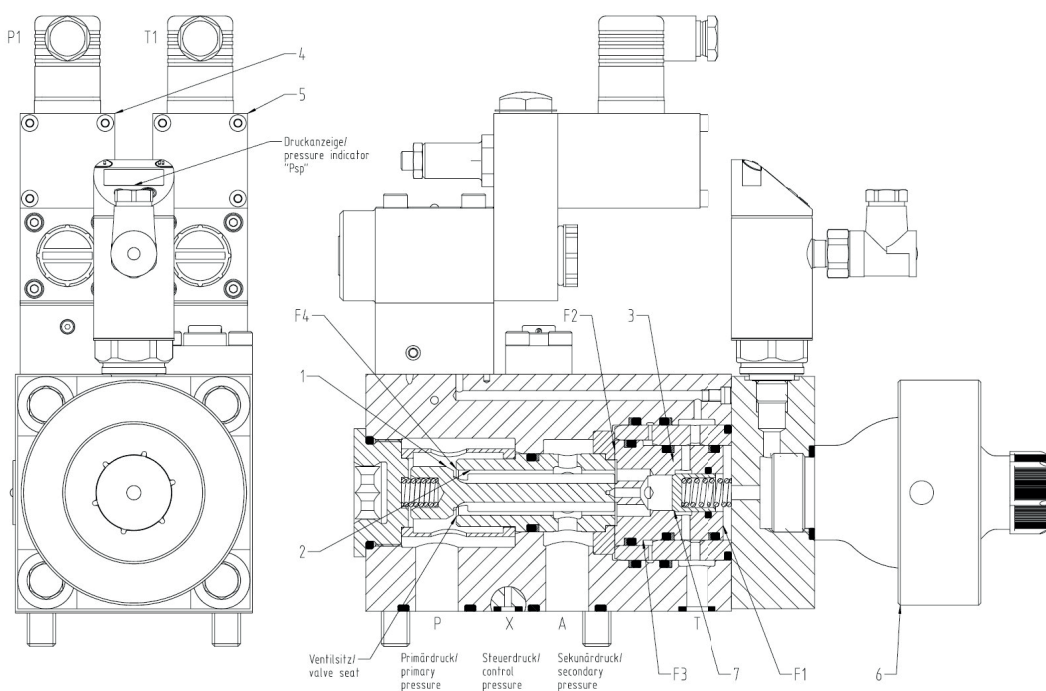


## Control function

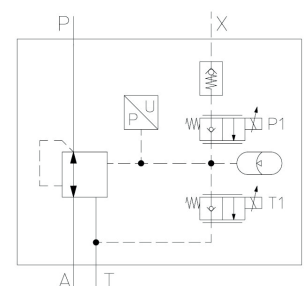
The Pressure reducing valve reduces the primary pressure on port P to a previously set secondary pressure in port A. For primary pressures up to 400 bar, reduced pressures can be set between 20 and 380 bar. A hydraulic accumulator (6), which is prefilled with nitrogen on the gas side, serves as a preload element. The pressure in the hydraulic accumulator (6) is set by the control pressure (X) by opening the pilot valve (4). Readjustment of the set pressure is possible by releasing the pressure via the pilot valve (5) into the tank connection (T). In the basic valve position, pressure medium flows through the valve seat (2) from primary side (P) to secondary side (A). The pressure in the hydraulic accumulator (6) acts to surface (F1) of piston (3). The primary pressure acts to surface F2 and F3. As long as the primary pressure is lower than the set pressure, the valve bolt (1) remains open since the surface F1 to F2-F3 are balanced.

When the set pressure in the hydraulic accumulator is reached or exceeded, the piston (3) and thus the valve bolt (1) moves and closes the open valve seat. In closed position, the primary pressure acts to surface (4). The surface F3 is just as large as the surface F4 so that the secondary pressure is kept constant by permanently opening and closing the valve bolt (1). The pressure relief valve (7) prevents an unwanted pressure increase in the event of leaks at the valve seat. The excess pressure is discharged via the tank connection (T).

### Example: Proportional pressure reducing valve DN16 structural plate form



### Symbol



# Technical data

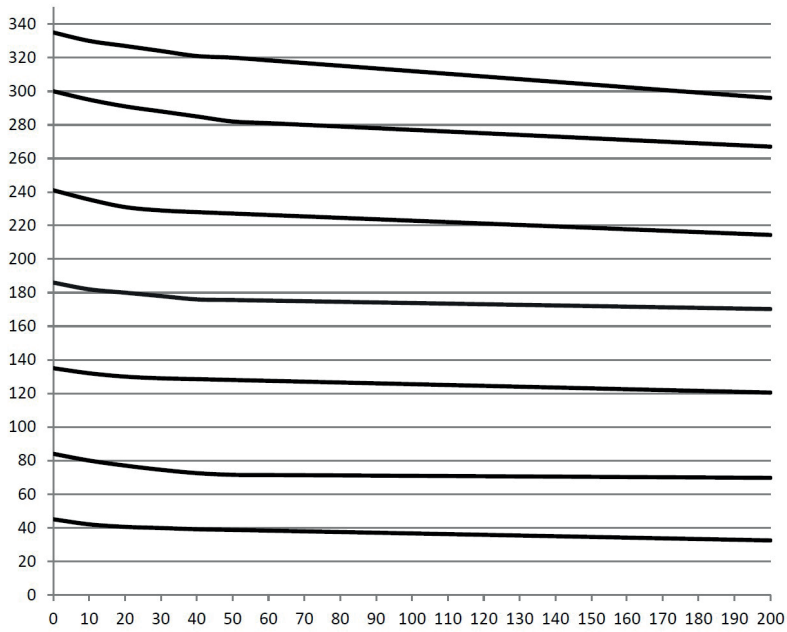
measured with HFA medium 97/3%, at 20°C

General	
Weight	see Order information
Installation position	any
Ambient temperature	-10 to 50°C (hydraulic fluids, heed standard requirements)
Material Valve parts	Stainless steel, bronze
Material Seals	NBR, PTFE, PUR
Hydraulic	
Hydraulic pressure connector P	≤ 400 bar
Hydraulic pressure connector A	≤ 380 bar
Hydraulic pressure connector T	≤ 10 bar
setting range of hydraulic response pressure Pa	20-380 bar
control ratio:	
- pressure reducing function (P-A)	1:1
- pressure relief function (A-T)	1:0,95
direction of flow	P→A
max. volume flow	200 l/min
Pressure fluid	Water, HFA
- Medium - Temperature range	5 to 40°C
- Medium - Quality	see Hauhinco media requirement, water, HFA
- min. filter fineness connection P, T	Filter fineness 100µm
- min. filter fineness connection X	Filter fineness 25µm
Pressure fluid	Mineral oil HLP according to DIN51624-2
- Medium - Temperature range	5 to 50°C
- Medium - Quality	Cleanliness class -/19/16 according to ISO 4406
- Viscosity	0,6 bis 100 mm <sup>2</sup> /s
Use of other pressure fluids on request.	

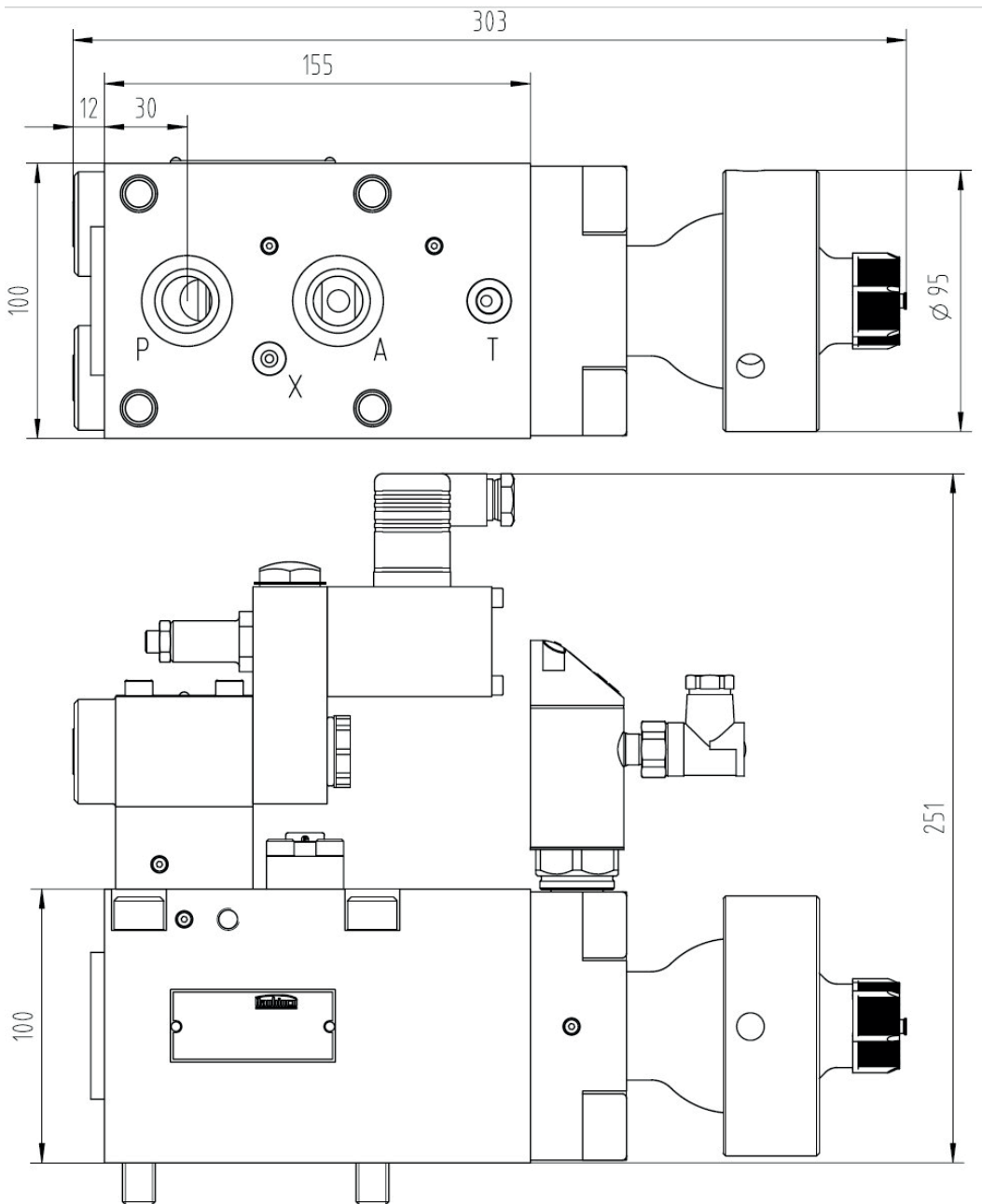
## Characteristic curves pressure reducing valve, proportional actuated

$\Delta p - qV$  characteristic curves DN16

max. open valve, dyn. viscosity 1mm<sup>2</sup>/s



## Pressure reducing valve DN16, proportional actuated



## Order information

### Included in the scope of supply

Mounting screws for the valves

Pressure setting according to customer specification

Factory test certificate on request

Designation	Weight [kg]	max. Pressure [bar]	Setting range [bar]	Type	Article number
Druckminderventil DN16	20,3	400	20-380	Plate-type	6603293