

# Pressure relief valve 500

## Type DVM

NG 4  
up to 30 l/min

### Features

- Outstanding stability over the entire flow range
- Low hysteresis and exact pressure control
- Low pressure loss through CFD optimised geometry
- Adjustable over the whole pressure range



### Design

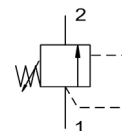
- Seated valve
- Directly operated
- Cartridge alone or in manifold
- External surface zinc-coated
- Minimum wear and long service life through hardened and ground valve parts

### Applications

The pressure relief valve is a part of the 500+ series. It is a directly operated spring loaded seated valve. It regulates the system pressure at port 1 on a certain value. The spring acts with a defined force on the closing cone to press on the valve seat. The valve opens by exceeding the spring force.

In this way the valve lets pass a flow from port 1 to port 2. The pressure at connection 1 is now limited independent to the valve flow.

Attention: The pressure at port 2 increases the limiting pressure! The valve function is out of order by interchanging the ports or pressure setting above the maximum operating pressure.



### Technical data

Hydraulic fluid	mineral oil according to DIN 51524 (other fluids on request)	
Fluid temperature range	-20 to 120 °C	
Ambient temperature range	-20 to 120 °C	
Viscosity range	7.4 to 420 mm <sup>2</sup> /s	
Porting	NG 4	
Max. operating pressure port 1	700 bar	
Max. operating pressure port 2	100 bar	
Pressure setting range port 1	70 to 700 bar	
Max. flow rate	30 l/min	
Filtration (recommendation)	class 21/19/16 according to ISO/DIN 4406	
Weight	0.14 kg (cartridge)	
Material/surface treatment	Cartridge body:	high tensile steel
	Cone:	hardened steel
	Supporting ring:	PTFE

## Ordering code

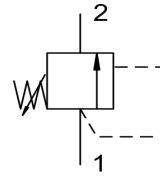
<b>Example</b>	<b>DV</b>	<b>M</b>	-	<b>4B</b>	-	<b>X</b>	-	<b>700</b>	-	<b>V</b>	-	<b>A</b>		<b>00</b>
<b>Pressure relief valve</b>														
<b>Type</b>	500+													
<b>Nominal size</b>	4													
<b>Cartridge</b>	...E													
<b>Connection Bieri</b>	...B													
<b>Connection in-line body</b>	...R													
<b>Modular subplate</b>	...Z													
<b>Design</b>	<p><b>X</b> Cartridge</p> <p><b>In intermediate manifold for valve bank</b></p> <p><b>A</b> securing of A</p> <p><b>AB</b> securing of A and B</p> <p><b>B</b> securing of B</p> <p><b>In direct connection block for valve bank (starting block)</b></p> <p><b>G1/4VR</b> Connection size G1/4</p> <p><b>G3/8VR</b> Connection size G3/8</p> <p><b>In in-line mounting body</b></p> <p><b>G1/4</b> Connection size G1/4</p> <p><b>G3/8</b> Connection size G3/8</p>													
<b>Max. pressure</b>	700 bar													
<b>Seals</b>	V (FPM) other seal materials on request													
														<p><b>Special design</b> 01 ... 99 (00 for standard)</p> <p><b>Part index</b> Please leave blank (small letters a-d; different letters do not effect interchangeability)</p> <p><b>Desing revision</b> Capital letters A-Z; identical letters equal same connecting dimensions</p>

**Product information**

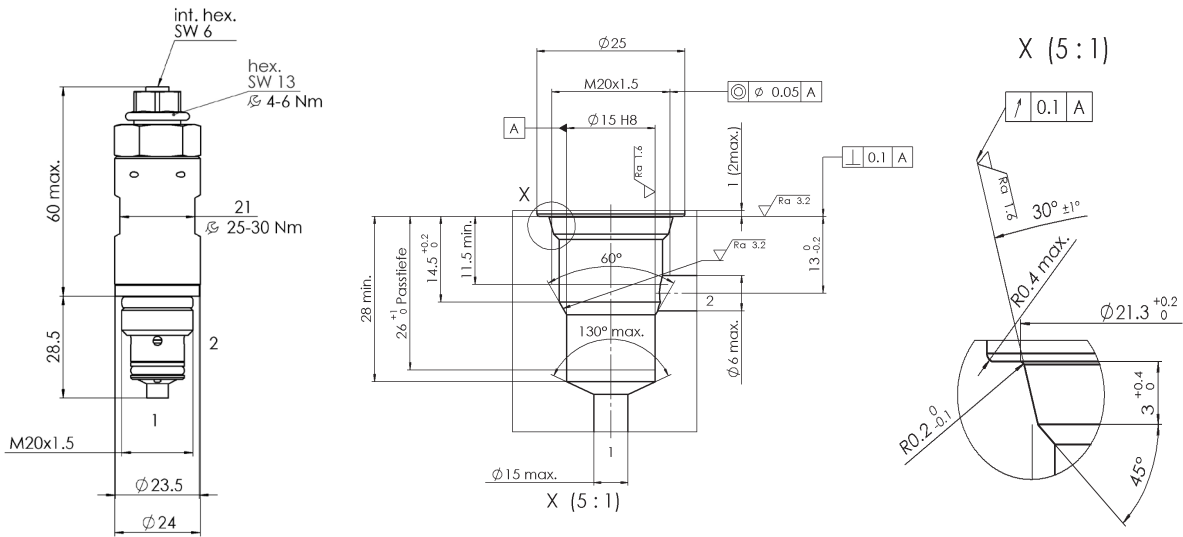
**Cartridge**

Type code	Part number
DVM-4E-X-700-V-A*00	3830674

**Hydraulic schematics**



**Dimensional drawing**



**Intermediate plate for valve bank**

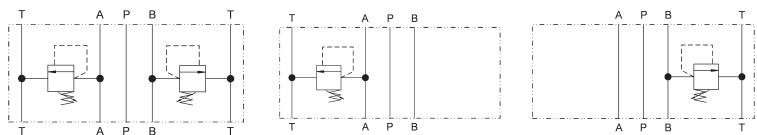
**In sandwich plate for valve bank**

Type code	Part number
DVM-4Z-A-700-V-A*00	4109258
DVM-4Z-AB-700-V-A*00	4002014
DVM-4Z-B-700-V-A*00	4109231

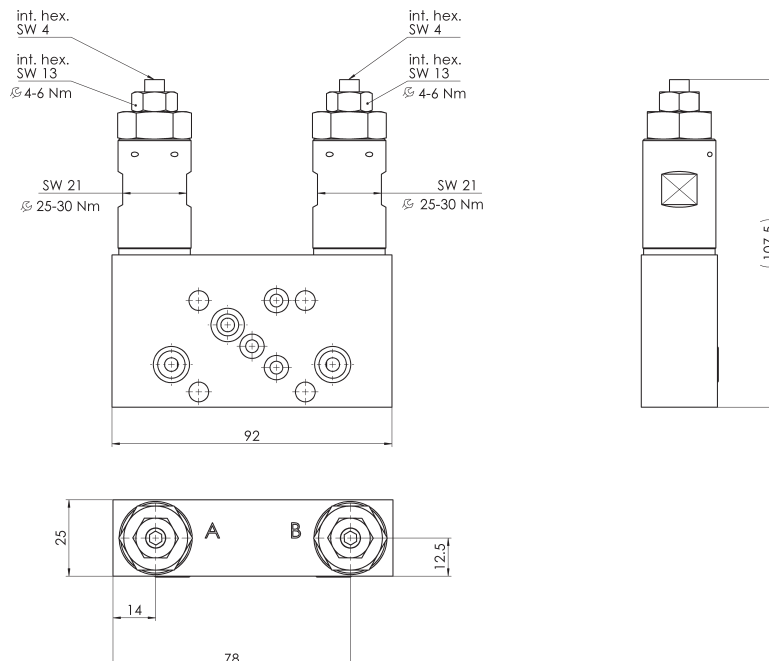
**Hydraulic schematics AB**

**A**

**B**



**Dimensional drawing**



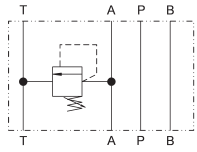
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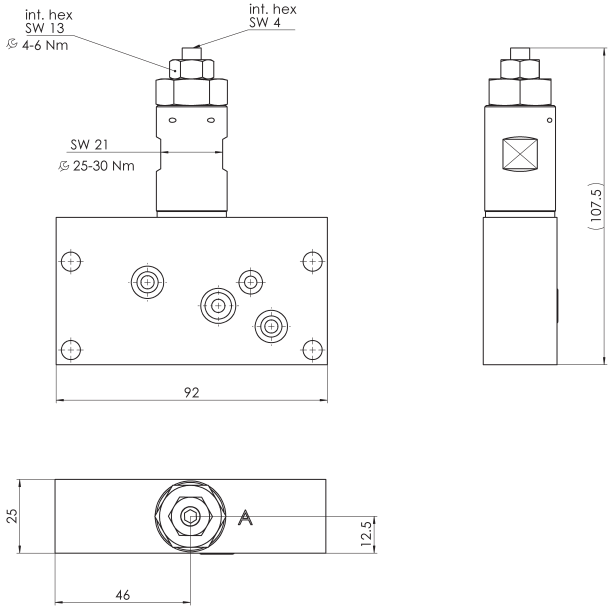
**For 3/3-directional valve**

Type	Part number
DVM-4Z-A-700-V-A*00	3830669

**Hydraulic schematics**



**Dimensional drawing**



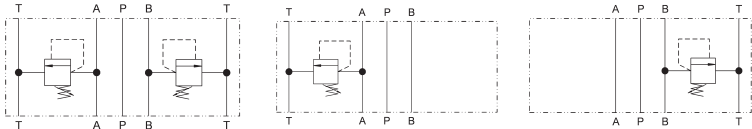
**For 4/3-directional valve**

Type	Part number
DVM-4Z-A-700-V-A*00	3830669
DVM-4Z-AB-700-V-A*00	3830671
DVM-4Z-B-700-V-A*00	3830673

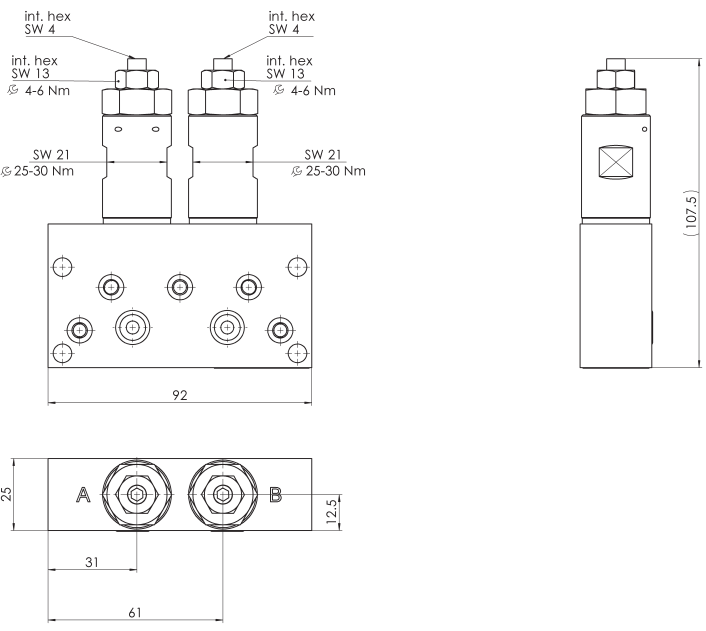
**Hydraulic schematics AB**

**A**

**B**



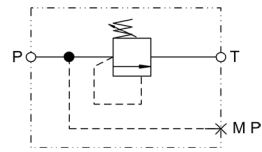
**Dimensional drawing**



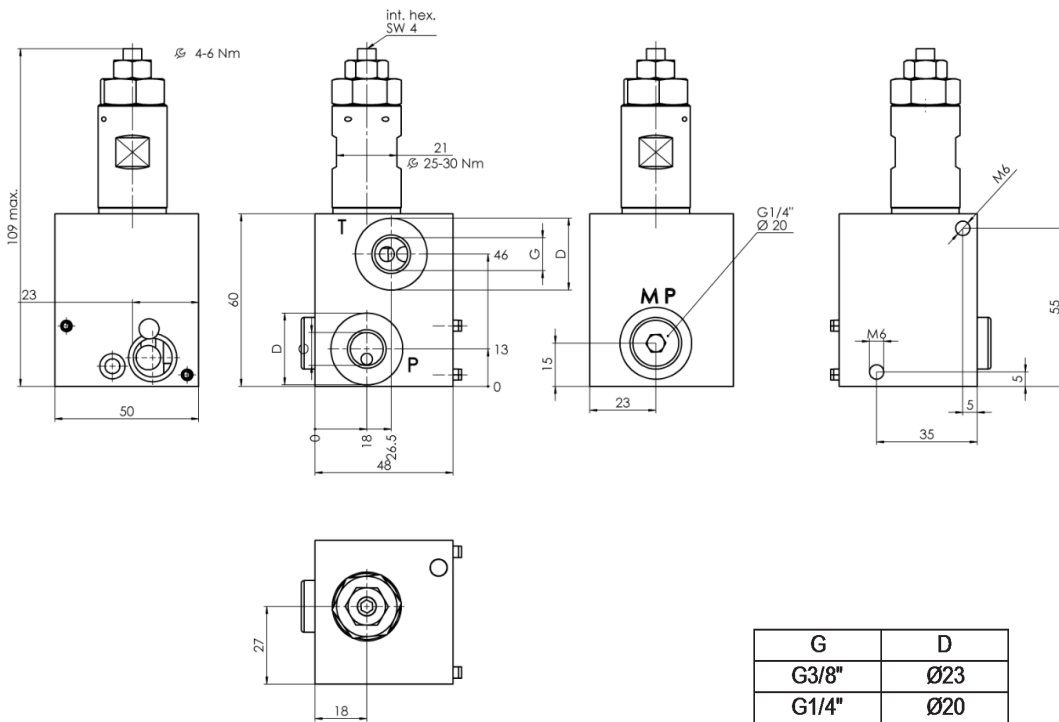
In direct connection block for valve bank (starting block)

Type	Part number
DVM-4B-G1/4VR-700-V-A*00	3830715
DVM-4B-G3/8VR-700-V-A*00	3830716

Hydraulic schematics



Dimensional drawing



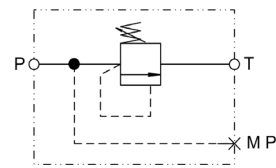
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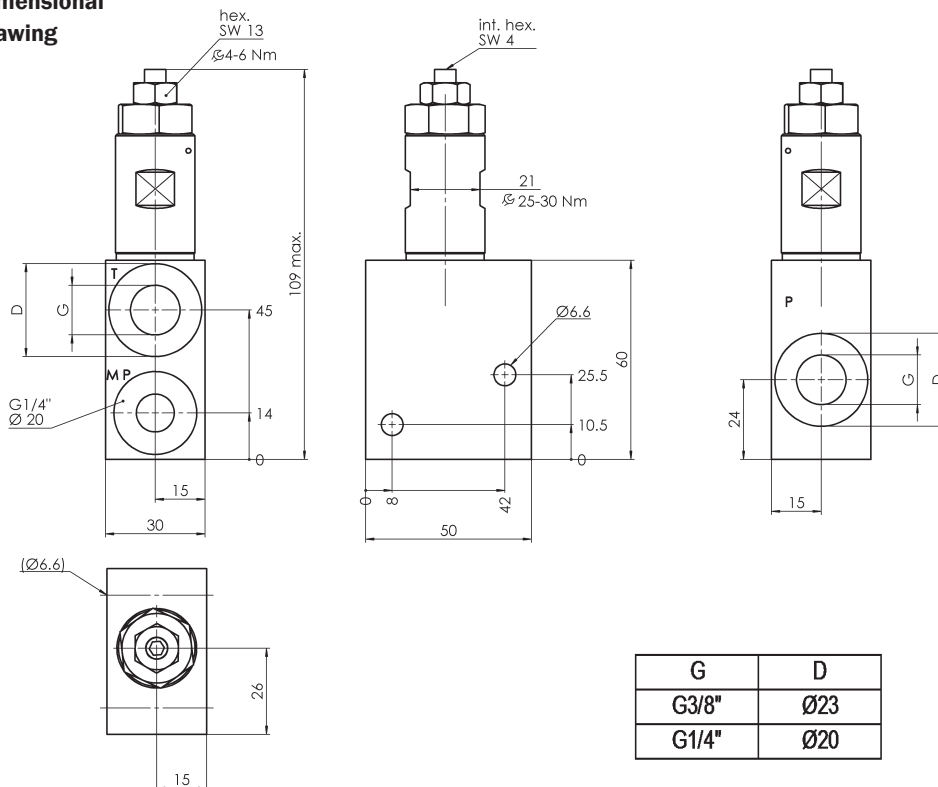
### In in-line mounting body

Typ	Arikelnummer
DVM-4R-G1/4-700-V-A*00	3830718
DVM-4R-G3/8-700-V-A*00	3830719

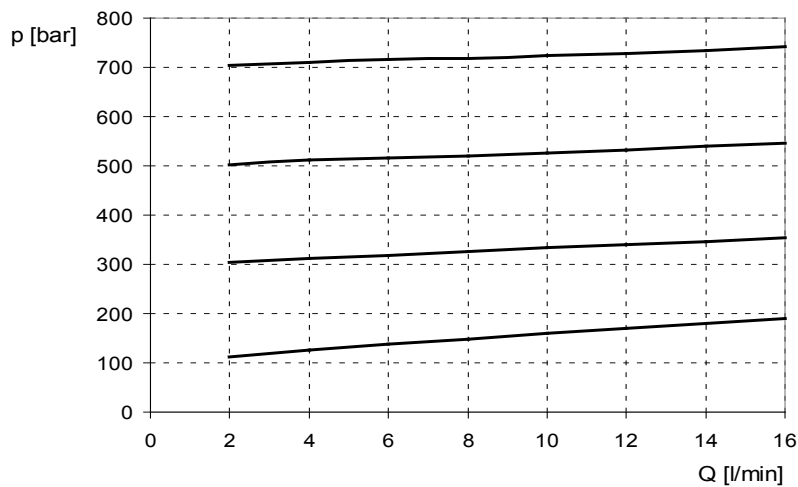
### Hydraulic schematics



### Dimensional drawing



### Characteristics



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The information in this brochure relates to the operating conditions and applications described.

For applications and operating conditions not described, please contact the relevant technical department.

Subject to technical modifications.