

# Unloading valve 500

## Type DAM

NG 4  
up to 40 l/min

### Features

- Adjustable over the entire pressure range
- Zinc plated body (cartridge)



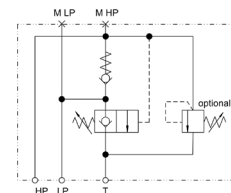
### Design

- Seated valve
- Directly operated
- In manifold only

### Applications

The unloading valve DAM is a part of the 500+ series and is integrated together with a check valve into a valve block. The unloading valve is used with a low pressure (LP) and a high pressure pump (HP) in a dual-pressure-system. They both supply the same working port. The valve unloads the low pressure pump flow at a set pressure to the tank.

Before the switchover both pumps supply the working port. After the switchover the low pressure pump flow is connected loss-free to the tank. The working port is supplied by the high pressure pump only.



### 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	10 to 400 mm <sup>2</sup> /s	
Porting	NG 4	
Max. operating pressure port HP	700 bar	
Max. operating pressure port LP	150 bar	
Pressure setting range port LP	25 to 150 bar	
Max. flow rate	40 l/min	
Filtration (recommendation)	class 21/19/16 according to ISO/ DIN 4406	
Pressure loss (LP->T)	3 bar (at 25l/min and 32 mm <sup>2</sup> /s)	
Weight	0.28 kg (cartridge only)	
Materials	Cartridge body:	Free-cutting steel, zinc plated
	Cone:	Hardened steel
	Manifold:	Corrosion-free steel
	Back up ring:	PTFE

**Type DAM**

NG 4  
up to 40 l/min

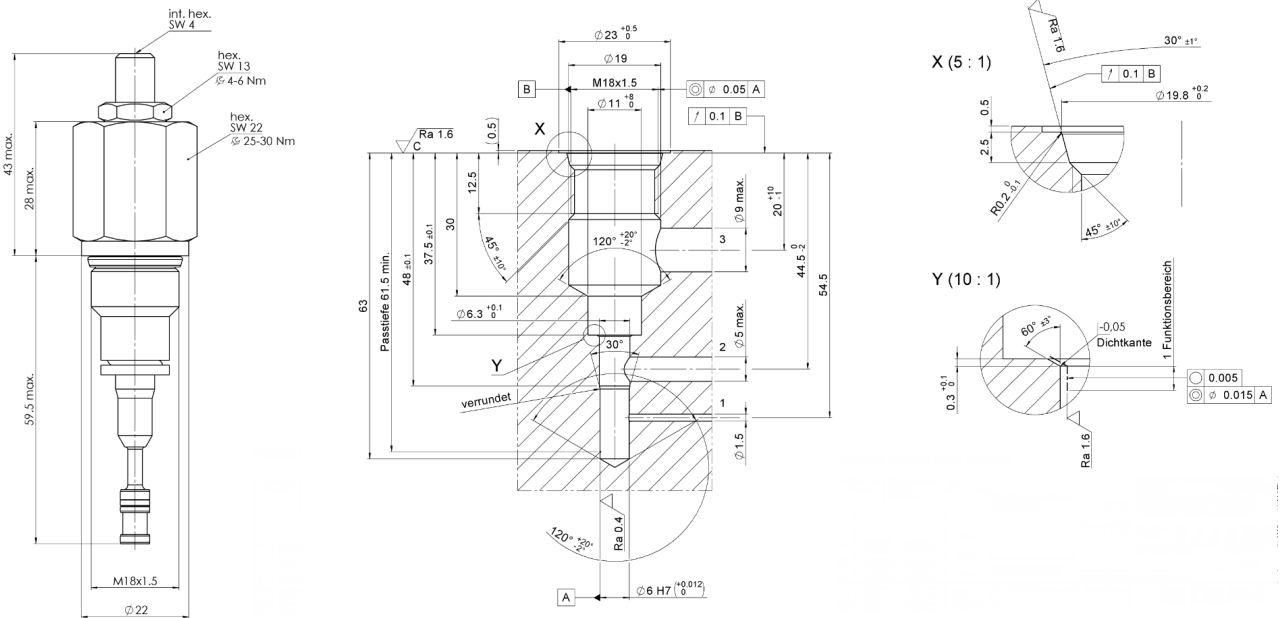
**Ordering code**

<b>Example</b>	<b>DA</b>	<b>M</b>	<b>4B</b>	<b>VR</b>	<b>150</b>	<b>V</b>	<b>A</b>	<b>00</b>
<b>Unloading 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>Design</b>	X cartridge							
<b>In manifold for valve bank:</b>	VR without pressure relief valve							
	VRDV with pressure relief valve							
<b>In manifold for direct mounting onto pump from HP power unit:</b>	VP without pressure relief valve							
	VPDV with pressure relief valve							
<b>In-line mounting</b>	X without pressure relief valve							
	DV with pressure relief valve							
<b>Max. pressure setting port LP</b>	150 bar							
<b>Seal material</b>	V (FPM)							
	other seal materials on request							
							<b>Special design</b>	
							01 ... 99	
							(00 for standard)	
							<b>Part index</b>	
							Please leave blank (small letters a-d; different letters do not effect interchangeability)	
							<b>Design revision</b>	
							Capital letters A-Z; identical letters equal same connecting dimensions	

Product information

Cartridge

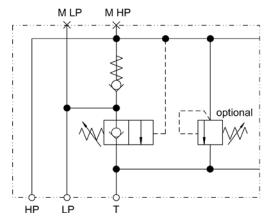
Type	Part number
DAM-4E-X-150-V-A*00	3958418



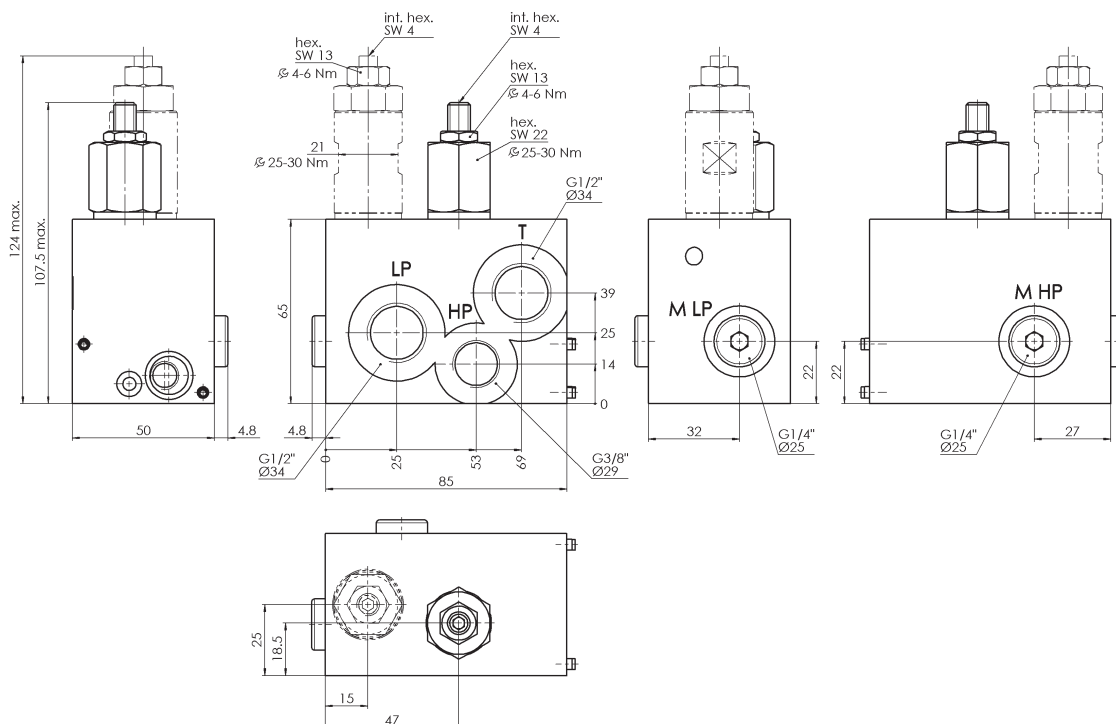
In manifold for valve bank

Type	Part number
DAM-4B-VR-150-V-A*00	3830757
DAM-4B-VRDV-150-V-A*00	3830759

Hydraulic schematic



Dimensional drawing



## Type DAM

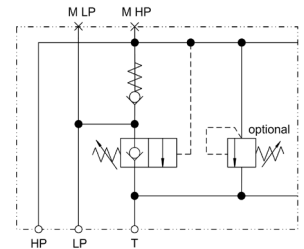
NG 4  
up to 40 l/min

### In-line mounting

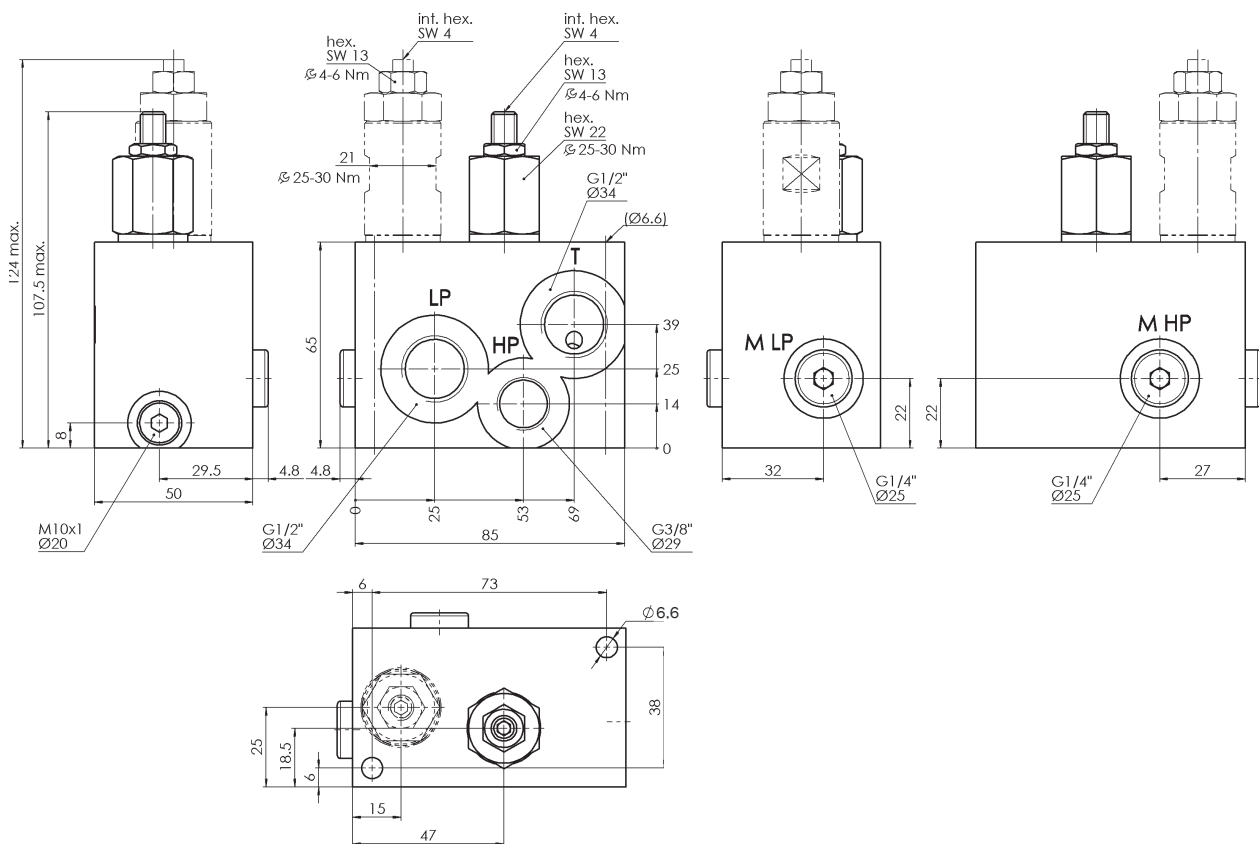
Type	Part number
DAM-4R-X-150-V-A*00	3830758
DAM-4R-DV-150-V-A*00	3830762

**Note:** HP to be connected with high pressure pump and system (T-piece). If the optional relief valve is not applied, another separate HP-relief valve must be installed. Also a low pressure relief valve must be installed.

### Hydraulics schematics



### Dimensional drawing

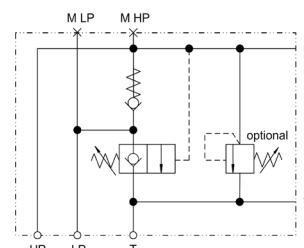


### In manifold for direct mounting onto pump for valve bank

Type	Part number
DAM-4B-VP-150-V-A*00	3830760
DAM-4B-VPDV-150-V-A*00	3830761

Dimensional drawing available upon request

### Hydraulic schematics



### Bieri Hydraulik AG

Könizstrasse 274  
CH-3097 Liebefeld  
Tel. +41 31 970 09 09 | Fax +41 31 970 09 10  
info@bierihydraulics.com | www.bierihydraulics.com

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.