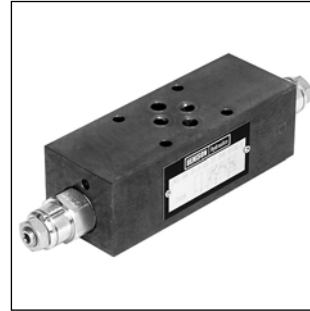


**Characteristics / Ordering Code**

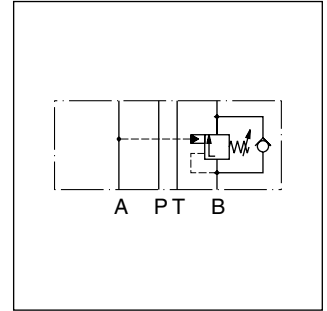
The counterbalance valve series ZNS controls the actuator movement at overrunning loads.

The return flow from the actuator is piloted and controlled by the inlet flow to the actuator, ensuring a cavitation-free lowering of the load.

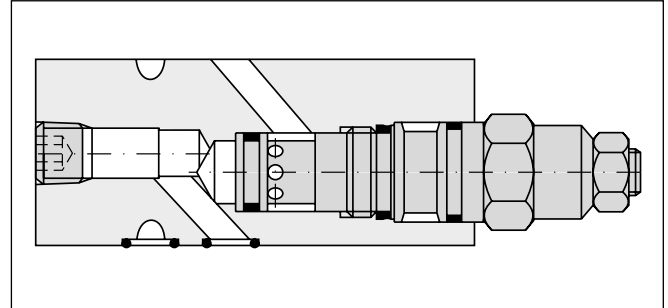
The counter balance valve operates as a pressure relief valve. The setting pressure is lowered by the pressure in the inlet line. To ensure safe load holding the setting pressure should be approximately 30 % higher than the max. load pressure.



ZNS-AB01



ZNS-B01



ZNS-B01

**Features**

- Controlled movement loads
- Load holding via leak-free poppet valve
- Secondary relief protection for the actuator
- ZNS\*01 – NG06 (CETOP 03)  
ZNS\*02 – NG10 (CETOP 05)

**Ordering code**

<b>ZNS</b>					<b>S0</b>	<b>D</b>	
Counterbalance valve	Pressure control	Nominal size	Pressure stages	Hexagon screw with lock nut	Design series	Seal	

Code	Pressure control
A	in A
B	in B
AB	in A and B

Code	Nominal size
01	NG06
02	NG10

Code	Seal
1	NBR
5	FPM

Code	Pressure stages
2	70 - 175 bar
5 <sup>1)</sup>	140 - 350 bar

Ordering code details see end of chapter.

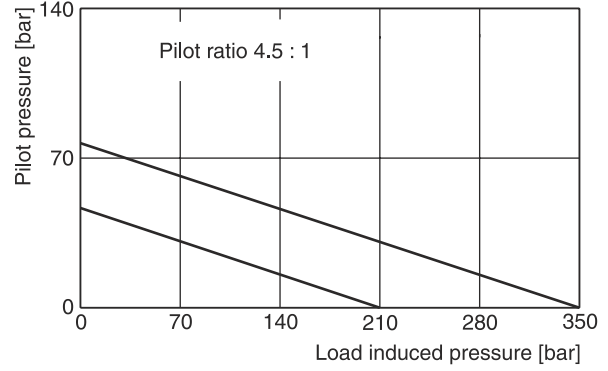
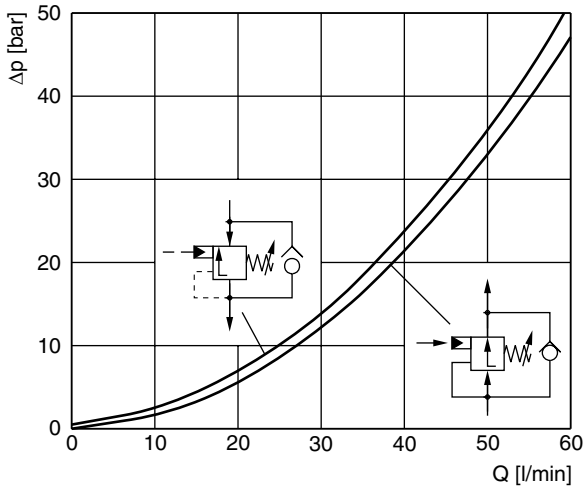
<sup>1)</sup> NG10 to 315 bar.

**Technical data**

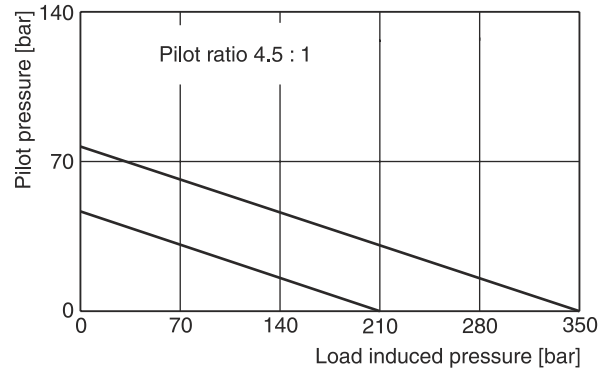
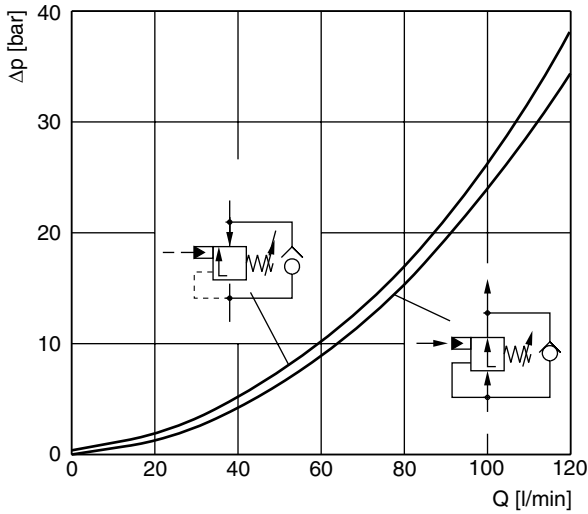
General		NG06	NG10
Size			
Mounting interface		DIN 24340 A6 ISO 4401 NFPA D03	DIN 24340 A10 ISO 4401 NFPA D05
Mounting position		unrestricted	
Ambient temperature	[°C]	-20...+60	
Weight			
	1 cartridge	1.3	1.6
	2 cartridges	3.0	3.9
Hydraulic		NG06	NG10
Max. operating pressure	[bar]	350	315
Pressure stages	[bar]	175, 350	
Pilot ratio		4.5 : 1	
Leakage		on request	
Nominal flow	[l/min]	60	120
Opening pressure	[bar]	0.3	0.3
Fluid		Hydraulic oil according to DIN 51524	
Fluid temperature	[°C]	-20...+70 (NBR: -25...+70)	
Viscosity,			
	permitted	[cSt] / [mm <sup>2</sup> /s]	20 ... 400
	recommended	[cSt] / [mm <sup>2</sup> /s]	30 ... 80
Filtration		ISO 4406 (1999); 18/16/13	

**p/Q performance curves**

**ZNS\*01**



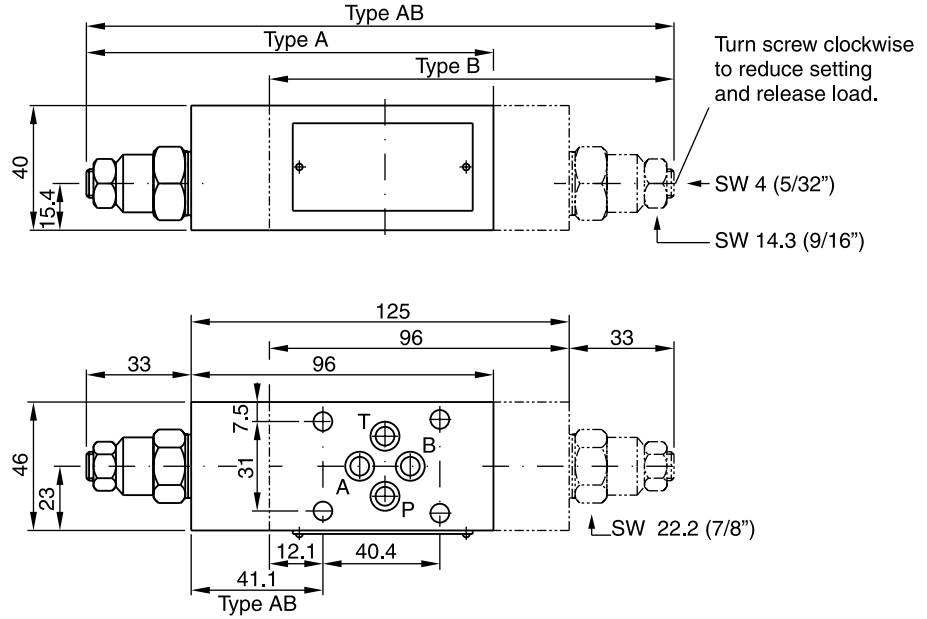
**ZNS\*02**



All characteristic curves measured with HLP46 at 50 °C.

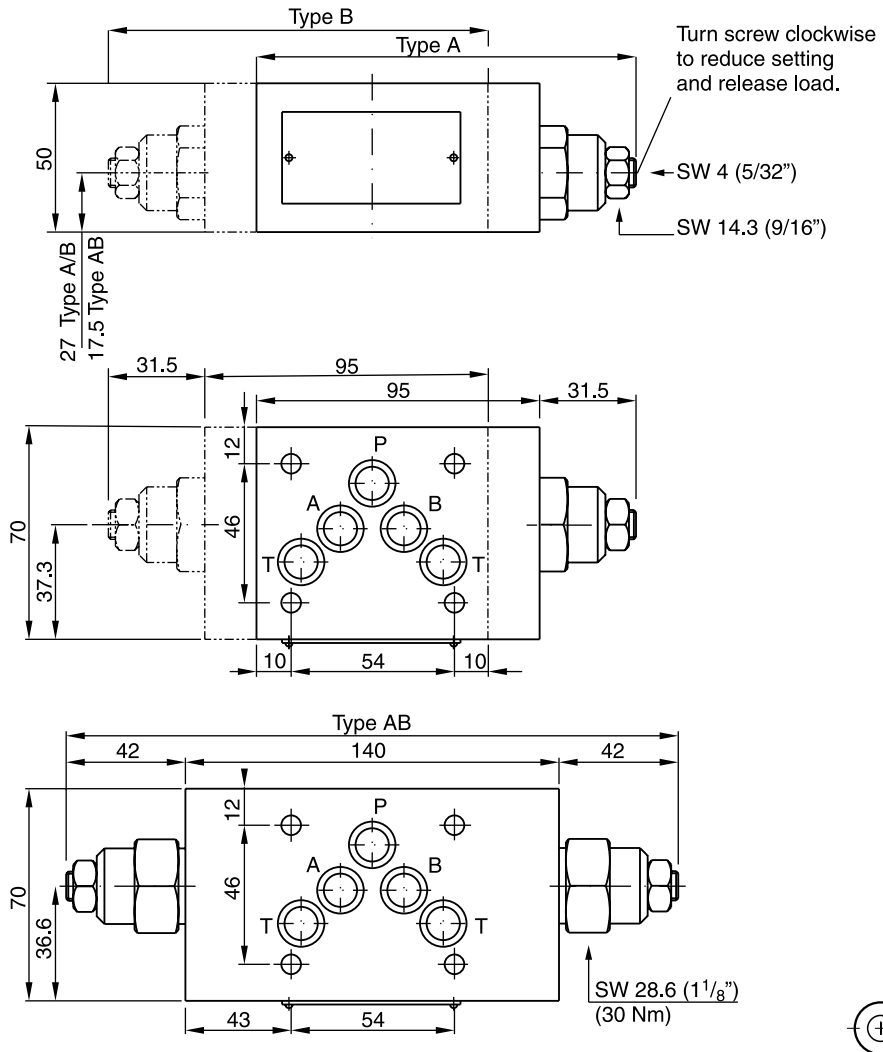
7

**ZNS\*01**

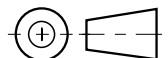


Seal kit ZNS*01	
Seal	Order code
NBR	098-91153-0
FPM	098-91154-0
Complete cartridge ZNS*01	
Pressure stage	Order code
2	517-01017-2
5	517-00448-8

**ZNS\*02**

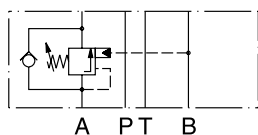


Seal kit ZNS*02	
Seal	Order code
NBR	098-91155-0
FPM	098-91156-0
Complete cartridge ZNS*02	
Pressure stage	Order code
2	517-00449-8
5	517-00450-8



ZNS\*01

Counterbalance in A

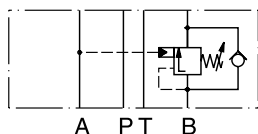


A PT B

Series	Order no.
ZNS-A01-2-S0-D1	098-91126-0
ZNS-A01-5-S0-D1	098-91127-0

ZNS\*02

Counterbalance in B

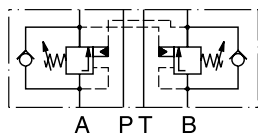


A PT B

Series	Order no.
ZNS-B01-1-S0-D1	098-91128-0
ZNS-B01-5-S0-D1	098-91129-0

Series	Order no.
ZNS-A02-2-S0-D1	098-91132-0
ZNS-A02-5-S0-D1	098-91133-0

Counterbalance in A and B



A PT B

Series	Order no.
ZNS-AB01-1-S0-D1	098-91130-0
ZNS-AB01-5-S0-D1	098-91131-0

↑ 2 = 70 ... 175 bar  
 5 = 140... 350 bar

Series	Order no.
ZNS-AB02-1-S0-D1	098-91136-0
ZNS-AB02-5-S0-D1	098-91137-0

↑ 2 = 70 ... 175 bar  
 5 = 140 ...315 bar

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