

Parker Series ZNS Counterbalance Valve Service Manual

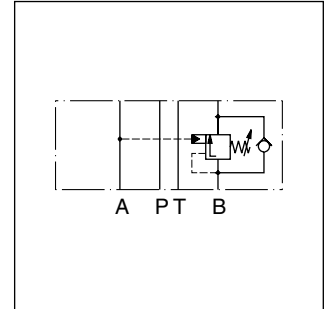
The counterbalance valve series ZNS controls the actuator movement at overrunning loads.

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.

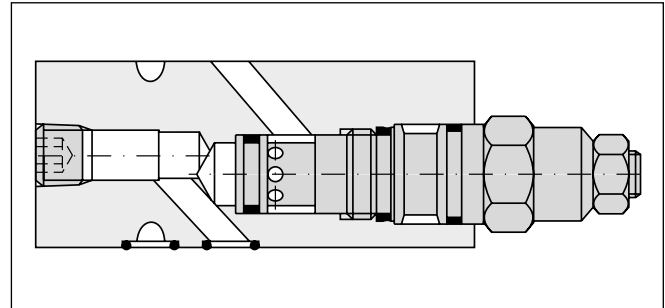
The counter balance valve operates as a pressure relief valve. The setting pressure is lowered by the pressure in the inlet line. To ensure safe load holding the setting pressure should be approximately 30 % higher than the max. load pressure.



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

ZNS				S0	D	
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 ¹⁾	140 - 350 bar

Ordering code details see end of chapter.

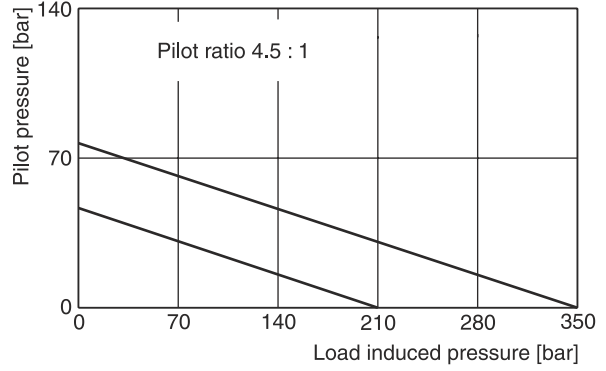
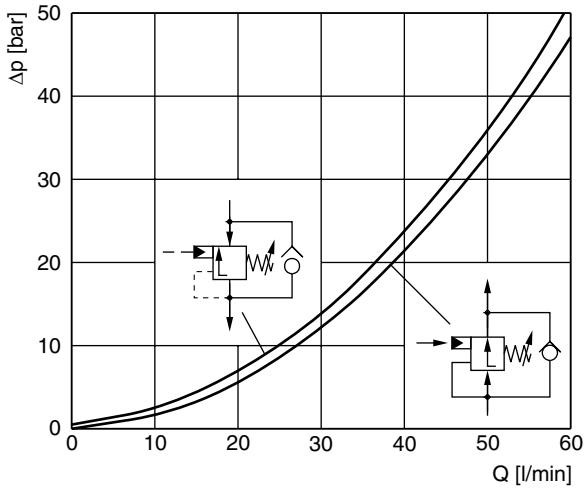
¹⁾ NG10 to 315 bar.

Technical data

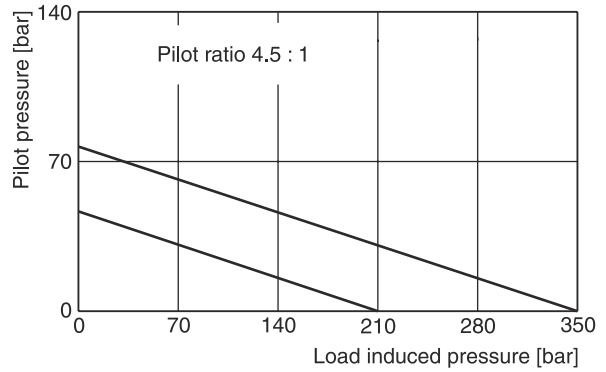
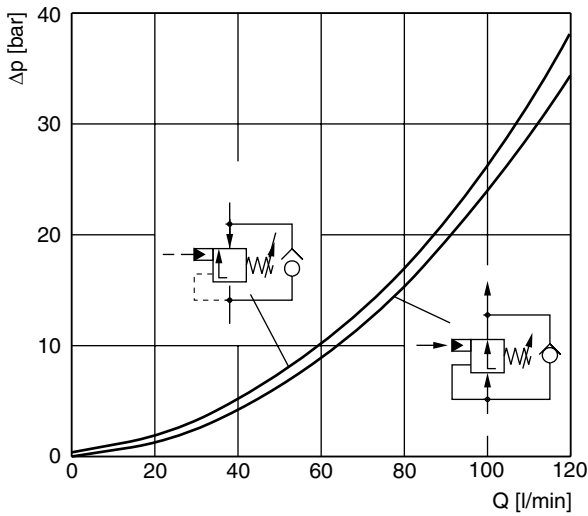
General		NG06	NG10
Size		DIN 24340 A6	DIN 24340 A10
Mounting interface		ISO 4401 NFPA D03	ISO 4401 NFPA D05
Mounting position		unrestricted	
Ambient temperature	[°C]	-20...+60	
Weight	1 cartridge [kg] 2 cartridges [kg]	1.3 3.0	1.6 3.9
Hydraulic			
Max. operating pressure	[bar]	350	315
Pressure stages	[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 ² /s]	20 ... 400	
Viscosity, recommended	[cSt] / [mm ² /s]	30 ... 80	
Filtration		ISO 4406 (1999); 18/16/13	

p/Q performance curves

ZNS*01



ZNS*02

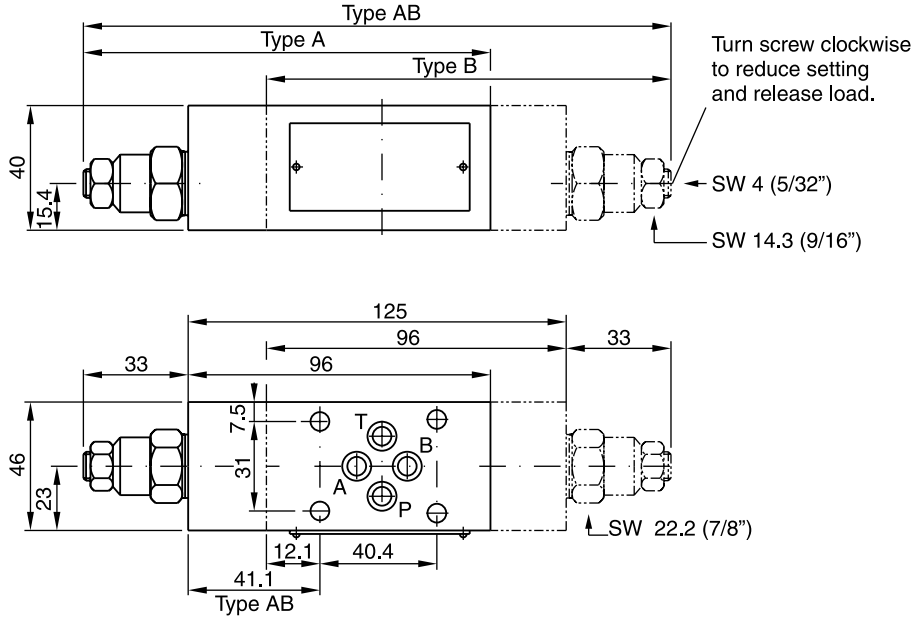


All characteristic curves measured with HLP46 at 50 °C.

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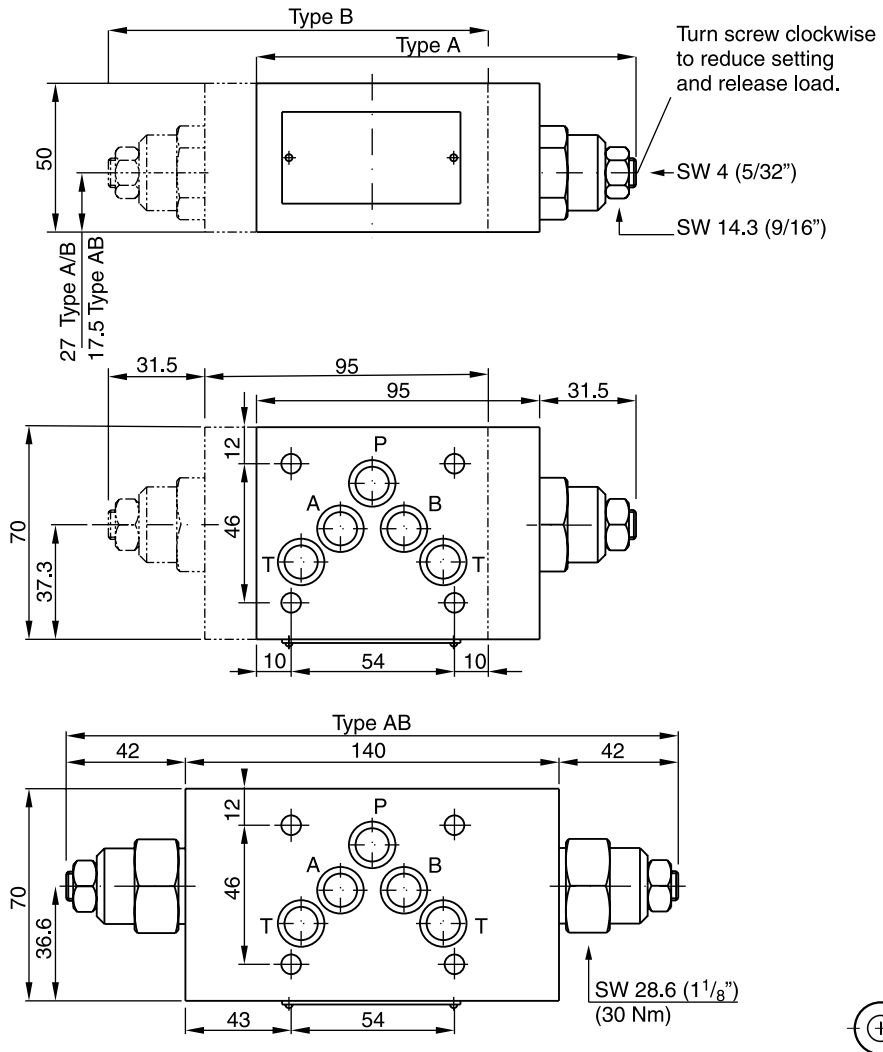
Dimensions

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

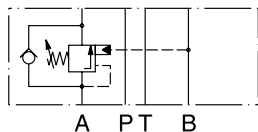
ZNS*02



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

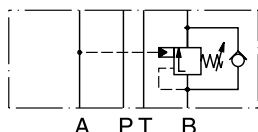


A PT B

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

ZNS*02

Counterbalance in B



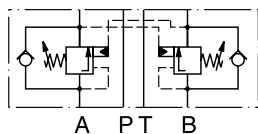
A PT B

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

Series	Order no.
ZNS-B02-1-S0-D1	098-91134-0
ZNS-B02-5-S0-D1	098-91135-0

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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