

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.

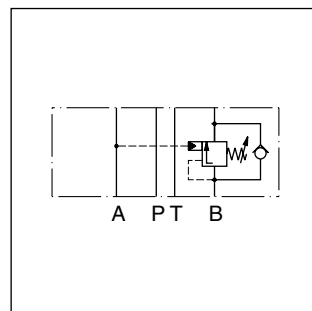
The counter balance valve operates as a pressure relief valve. The setting pressure is lowered by the pressure in the inlet line. To ensure safe load holding the setting pressure should be approximately 30 % higher than the max. load pressure.

Features

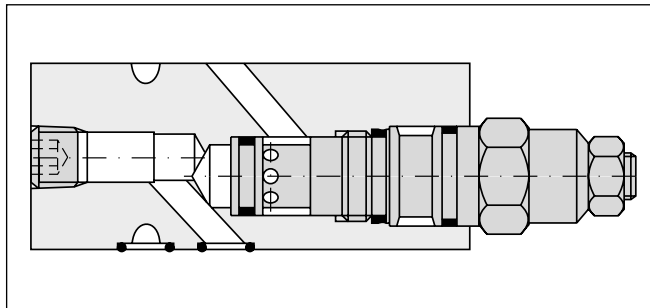
- Controlled movement loads
- Load holding via leak-free poppet valve
- Secondary relief protection for the actuator
- ZNS*01 – NG06 (CETOP 03)
- ZNS*02 – NG10 (CETOP 05)



ZNS-AB01



ZNS-B01



ZNS-B01

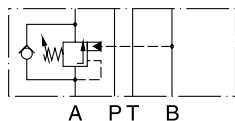
Ordering code

ZNS							
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						

¹⁾ NG10 to 315 bar.

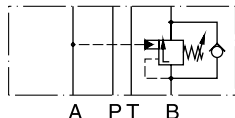
Ordering code details

Counterbalance in A



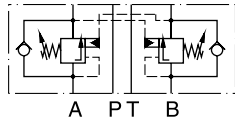
A PT B

Counterbalance in B



A PT B

Counterbalance in A and B



A PT B

ZNS*01

Series
ZNS-A01-2-S0-D1
ZNS-A01-5-S0-D1

Order no.
098-91126-0
098-91127-0

ZNS*02

Series
ZNS-A02-2-S0-D1
ZNS-A02-5-S0-D1

Order no.
098-91132-0
098-91133-0

Series
ZNS-B01-1-S0-D1
ZNS-B01-5-S0-D1

Order no.
098-91128-0
098-91129-0

Series
ZNS-B02-1-S0-D1
ZNS-B02-5-S0-D1

Order no.
098-91134-0
098-91135-0

Series
ZNS-AB01-1-S0-D1
ZNS-AB01-5-S0-D1

Order no.
098-91130-0
098-91131-0
2 = 70 ... 175 bar
5 = 140 ... 350 bar

Series
ZNS-AB02-1-S0-D1
ZNS-AB02-5-S0-D1

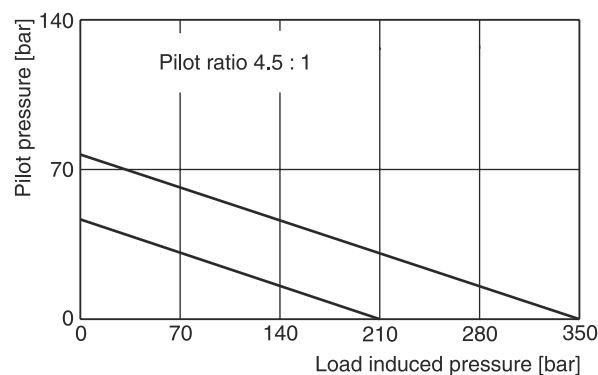
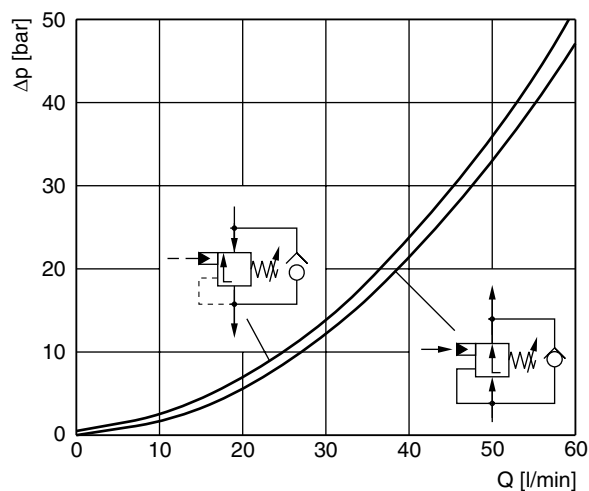
Order no.
098-91136-0
098-91137-0
2 = 70 ... 175 bar
5 = 140 ... 315 bar

Technical data

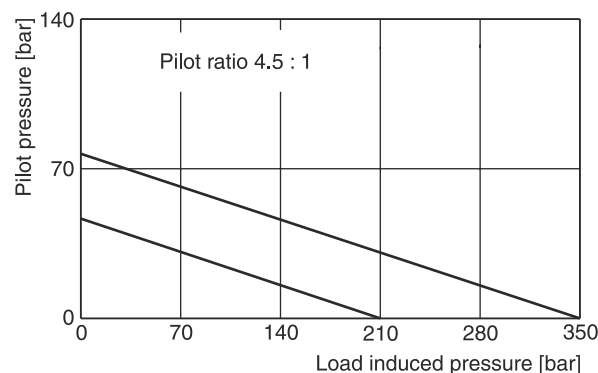
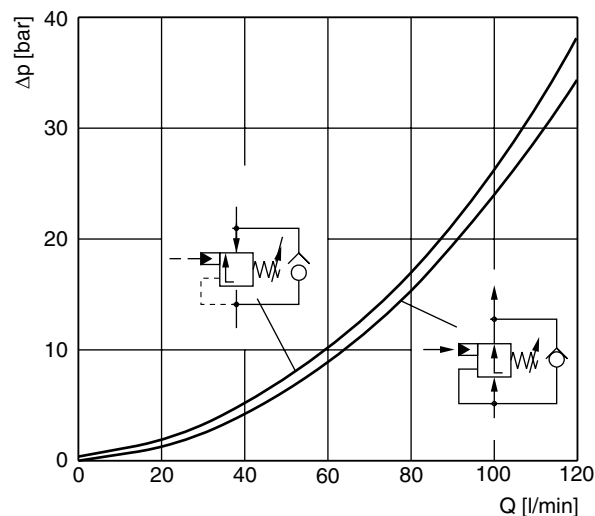
General					
Size		NG06		NG10	
Mounting interface		DIN 24340 A6 ISO 4401 NFPA D03		DIN 24340 A10 ISO 4401 NFPA D05	
Mounting position		unrestricted			
Ambient temperature		[°C] -20...+60			
Weight	1 cartridge	[kg]	1.3	1.6	
	2 cartridges	[kg]	3.0	3.9	
Hydraulic					
Max. operating pressure		[bar]	350	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] / [mm²/s]	20 ... 400		
	recommended	[cSt] / [mm²/s]	30 ... 80		
Filtration		ISO 4406 (1999): 18/16/13			

p/Q performance curves

ZNS*01

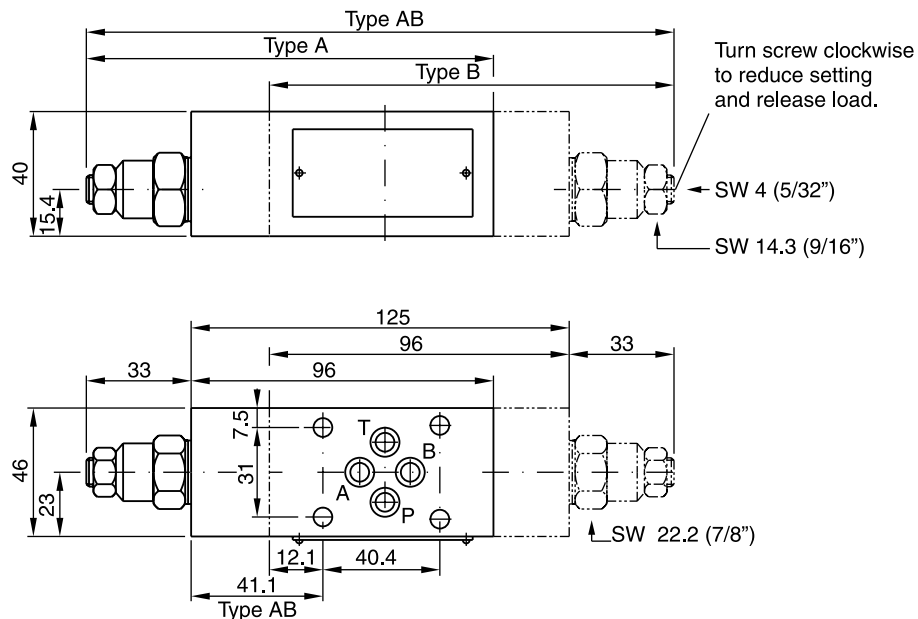


ZNS*02



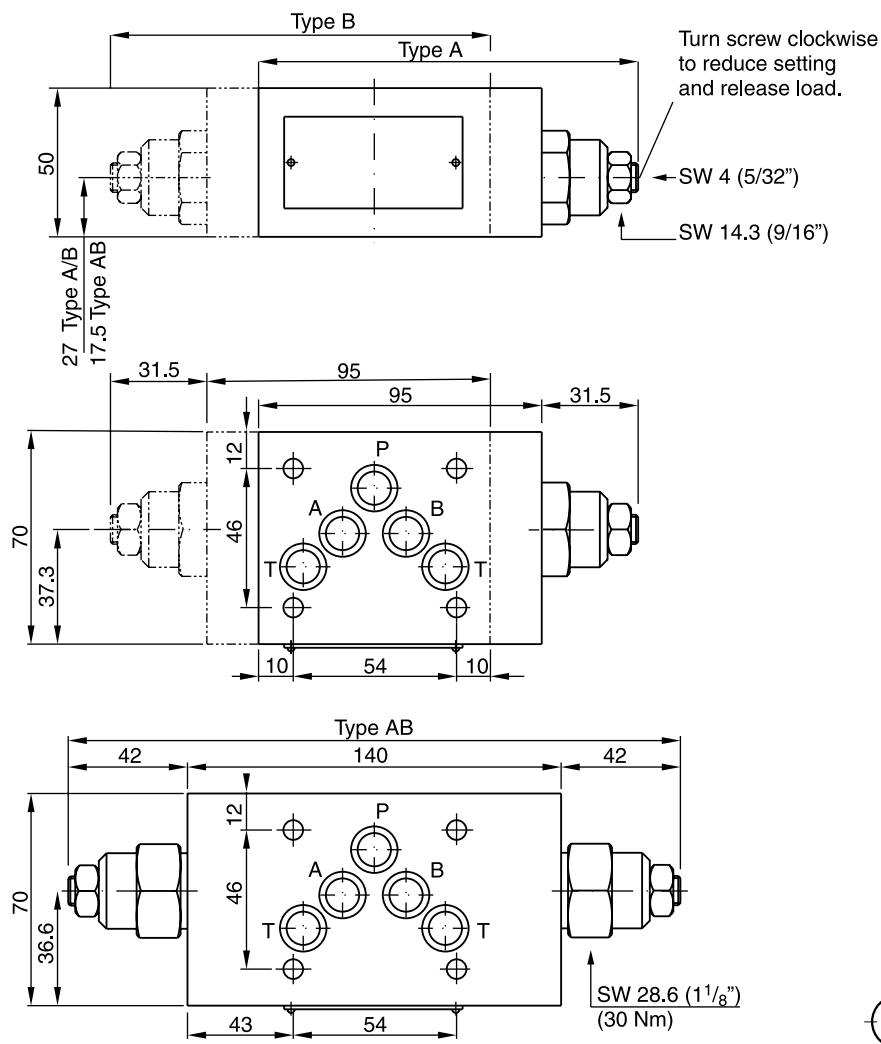
All characteristic curves measured with HLP46 at 50 °C.

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

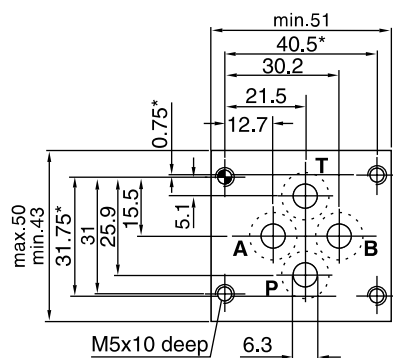
ZNS*02



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

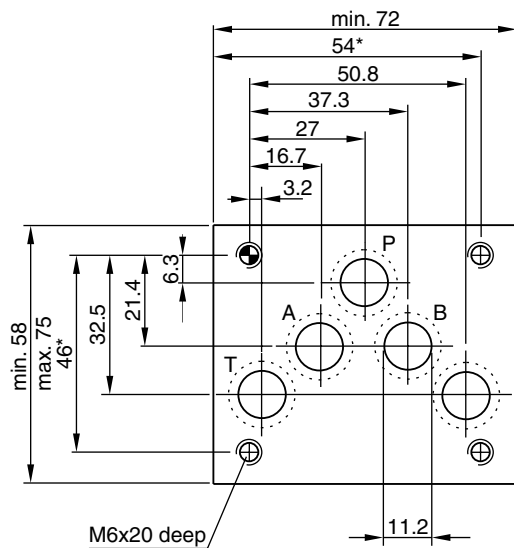
NG06

Code: ISO 4401-03-02-0-94

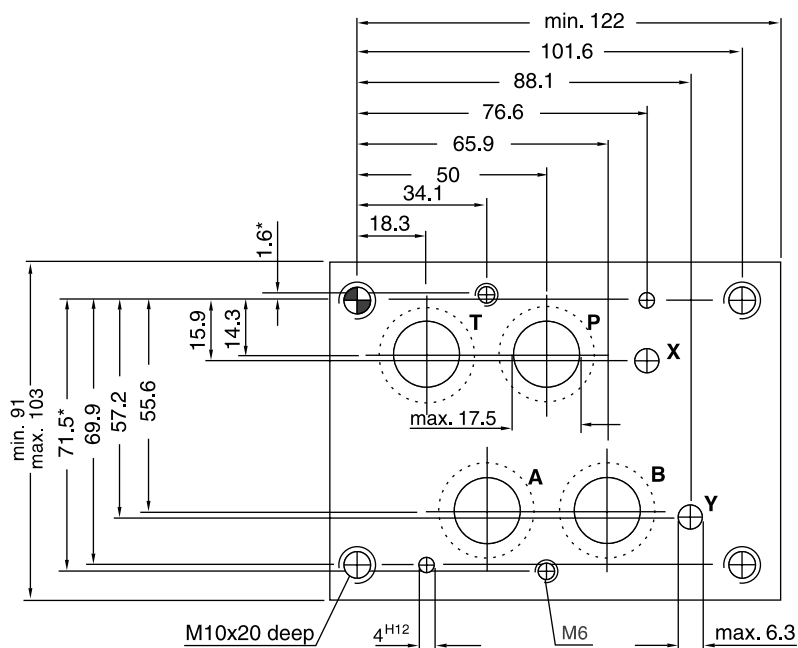


NG10

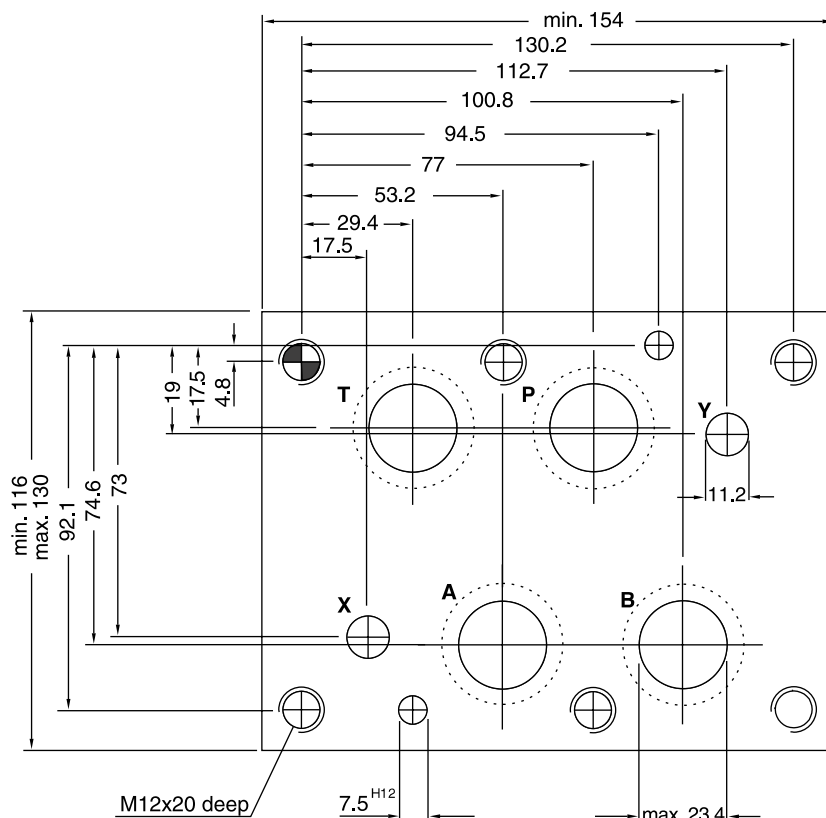
Code: ISO 4401-05-05-0-94

**NG16**

Code: ISO 4401-07-06-0-94

**NG25**

Code: ISO 4401-08-07-0-94 (Port diameter acc. to NFPA)



Dimensions marked with*: ± 0.1 mm.
All other dimensions: ± 0.2 mm.

Mounting

Parker sandwich valves can be installed as desired. Each has a mounting pattern, whose dimensions correspond to the following standards.

ISO 4401

DIN 24430

CETOP RP121

NFPA

Mounting screws

Cylinder head bolts as per ISO 4762-12.9, or studs as per DIN 835 10.9 with cylindrical nuts are used to mount the height stacking Manapak sandwich valves.

Bolt kits and tie rods see chapter 12, "Accessories".

Length of the mounting screws

The screw length is the sum of the engagement depth plus the stacking length. The stud length is the sum of the

stacking length plus the thread depth of the nut.

Torques

The mounting screws or studs must be tightened with the prescribed tightening torque so that safety and proper seal are ensured.

See chapter 12 "Accessories" for BK bolt kits and TK tie rod kits.

Threads length

Threads	M5	M6	M10	M12
thread length	1.5 x Ø thread			