

PRESSURE SETTINGS

LOAD PRESSURE: to hold the maximum load without leakage, we recommend that the SNSA...-10 is set as follows:

$$p_E = p_L \cdot 1.3$$

p_E = valve pressure setting
 p_L = maximum load-induced pressure

Example: Load pressure p_L = max. 200 [bar]
 pressure setting p_E = 200 [bar] · 1,3 = **260 [bar]**

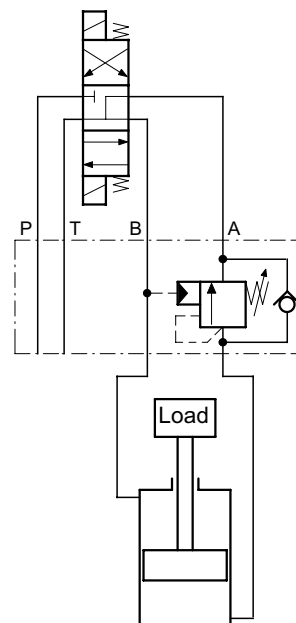
PILOT PRESSURE: the required pilot pressure is calculated as follows:

$$p_x = \frac{p_E - p_L}{i}$$

p_x = pilot pressure
 p_E = valve pressure setting
 p_L = effective load-induced pressure
 i = pilot ratio (see PRINCIPAL CHARACTERISTICS)

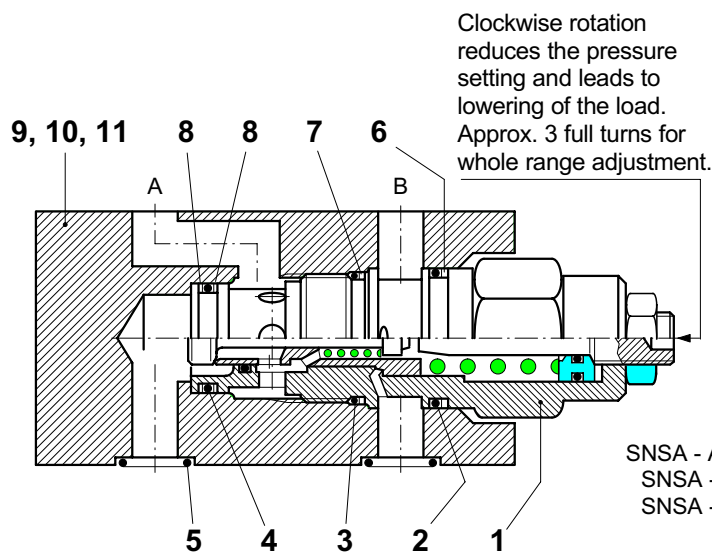
Example: Pressure setting p_E = 260 [bar]
 Load pressure p_L = eff. 180 [bar]
 Pilot ratio i = 4.5
 $p_x = \frac{260 \text{ [bar]} - 180 \text{ [bar]}}{4,5} = \text{approx. } \mathbf{18 \text{ [bar]}}$

Application example



SCHEMATIC SECTION

showing the relevant parts



COMPONENTS AND SERVICE PARTS

It.	Qty.	Description		
1	2	1	1	Cartridge 350 bar type CBEG LCN
				Cartridge 175 bar type CBEG LDN
	1	1	1	Seal Kit No. DS-240, comprising *):
2	2*)	1		O-Ring No. 021 \varnothing 23,52 x 1,78 N90
3	2*)	1	1	O-Ring No. 020 \varnothing 21,95 x 1,78 N90
4	2*)	1	1	O-Ring No. 018 \varnothing 18,77 x 1,78 N90
5	5*)	5	5	O-Ring No. 014 \varnothing 12,42 x 1,78 N90
6	2*)	1	1	Backup ring 021
7	2*)	1	1	Backup ring 020
8	4*)	2	2	Backup ring 018
9	-	-	1	Stacking body 50 x 70 x 95 Typ KA-10
10	-	1	-	Stacking body 50 x 70 x 95 Typ KB-10
11	1	-	-	Stacking body 50 x 70 x 140 Typ KC-10

SNSA - AB - 10
 SNSA - B - 10
 SNSA - A - 10

TO ORDER SERVICE PARTS, STATE:
 - complete unit model code from the nameplate, including Design Number.
 - spare part description per above list.
 - spare part item number per above list.
 - data sheet number, including issue date
 - quantity required

INSTALLATION AND SEVICING

ALL INSTALLATION AND SERVICING MUST BE CARRIED OUT WITH CARE, AND BY QUALIFIED PERSONNEL ONLY

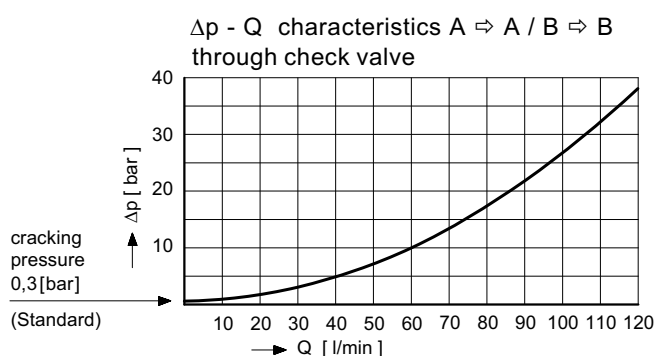
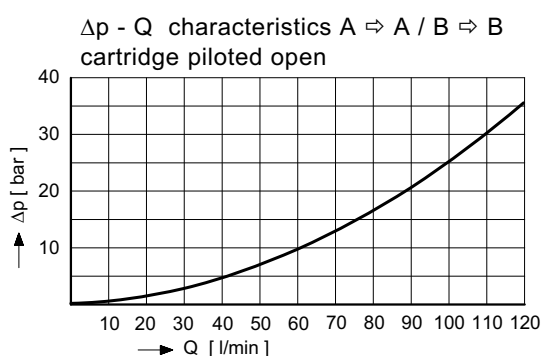
At installation, be sure to mount the valve the correct way up. Do not confuse the flat surface (directional valve side)

and the surface with O-ring counterbores (the actuator side). When renewing seals, the new seals should be thoroughly oiled or greased before fitting them to the valve. Observe the correct tightening torque when installing the cartridge.

PRINCIPAL CHARACTERISTICS

Type	'sandwich' counterbalance valve	Adjustment range	pressure range M1 = 70 ... 175 [bar] (pilot ratio 4,5 : 1)
Design	pilot assisted, poppet type		pressure range M2 = 30 ... 105 [bar] (pilot ratio 3 : 1)
Mounting method	stack mounting	C.V. cracking pressure	approx. 0,3 [bar] (Standard) approx. 1,8 [bar] (contact HTF)
Size	ISO 4401 size 5 interface	Fluids	Hydraulic oils HL and HLP to DIN 51 524 other fluids - contact HTF
Mass	SNSA - A../B.. - 10... = 2,30 [kg] SNSA - AB.. - 10... = 3,50 [kg]	Minimum fluid cleanliness	18/14 to ISO 4406 / Cetop RP70H 8 ... 9 to NAS 1638
Mounting attitude	unrestricted	Fluid temp. range	- 20° ... +60° [C]
Flow direction	see symbols	Viscosity range	10 ... 300 [cSt]
Operating pressure	max. 350 [bar]	Flow rate, Q max.	120 [l/min] see perform. curves
Adjustment range	pressure range N1 = 140 ... 350 [bar] (pilot ratio 4.5 : 1) pressure range N2 = 70 ... 280 [bar] (pilot ratio 3 : 1)		

PERFORMANCE CHARACTERISTICS (Oil viscosity 33cSt)



MODEL CODE KEY

- S = stack mounting
- N = counterbalance valve
- S = poppet type
- A ... Q = **Standard** model per current data sheet
- Z ... R = special features by arrangement (contact HTF)
- A = function in A
- B = function in B
- AB = function in A und B
- 10 = ISO 4401 size 5 interface
- S = screw adjustment
- N1 = pressure range 140 ... 350 bar (Normal, **standard** design)
pilot ratio 4,5 : 1
- N2 = pressure range 70 ... 280 bar (contact HTF)
pilot ratio 3 : 1
- M1 = pressure range 70 ... 175 bar (Medium, **standard** design)
pilot ratio 4,5 : 1
- M2 = pressure range 30 ... 105 bar (contact HTF)
pilot ratio 3 : 1

Valves are shipped with pressure set at the maximum for the specified pressure range e.g. if N1, then 350 bar.

- 03 = check valve cracking pressure 0,3 bar (**standard**)
- 18 = check valve cracking pressure 1.8 bar (contact HTF)

- (Blank) = Nitrile seals (**standard**)
- V = Viton seals
- special seals by arrangement (contact HTF)

Ex. SNSA - AB - 10 - S N1 - 03 -

D-38

SUBJECT TO CHANGE WITHOUT NOTICE

RELATED DATA SHEETS

i - 41 DIN 24340 size A10 interface

BUCHER HYDRAULICS

Germany
Tel.: + 49 7742 8520
Fax: + 49 7742 7116
info.de@bucherhydraulics.com

Switzerland
Tel.: + 41 33 672 61 11
Fax: + 41 33 672 61 03
info.ch@bucherhydraulics.com

Subject to change without notice

4/4

France
Tel.: + 33 389 64 22 44
Fax: + 33 389 65 28 78
info.fr@bucherhydraulics.com

Italy
Tel.: + 39 0522 92 84 11
Fax: + 39 0522 51 32 11
info.it@bucherhydraulics.com

Netherland
Tel.: + 31 7934 26 24 4
Fax: + 31 7934 26 28 8

Austria
Tel.: + 43 6216 44 97
Fax: + 43 6216 44 97 4

Great Britain
Tel.: + 44 2476 44 33 50
Fax: + 44 2476 44 33 51

China
Tel.: + 86 10 68 31 41 08
Fax: + 86 10 68 31 41 21
info.bj@bucherhydraulics.com

www.bucherhydraulics.com

USA
Tel.: + 1 262 605 82 80
Fax: + 1 262 605 82 78
info.wi@bucherhydraulics.com

Product Center Elevator
Tel.: + 41 41 757 03 33
Fax: + 41 41 757 05 00
info.nh@bucherhydraulics.com