

Counterbalance, standard poppet type differential area, counterclockwise adjustment SUN cavity interchange, T-2A

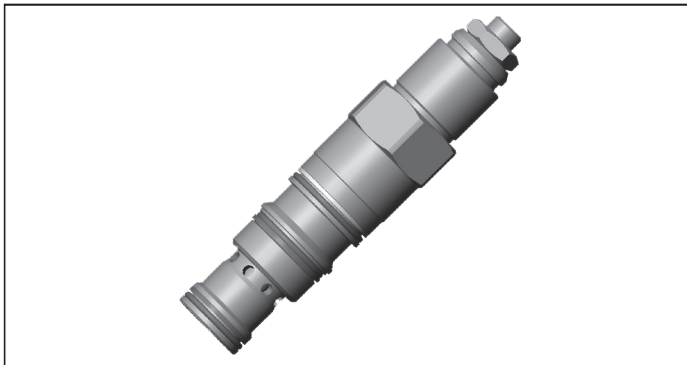
VBSN-12U-RS

04.52.44 - X - 86 - Z

RE 18320-18

Edition: 06.2024

Replaces: 07.2023



Description

When pressure at 2 rises above the spring bias pressure, the check seat is pushed away from the piston and flow is allowed from 2 to 1. When load pressure at 1 rises above the pressure setting (turn counterclockwise to increase setting - turn clockwise to decrease setting), the direct-acting, differential area relief function is activated and flow is relieved from 1 to 2. With pilot pressure at 3, the pressure setting is reduced in proportion to the stated ratio of the valve, until fully open with free-flow from 1 to 2. Any back-pressure at 2 is additive to the pressure setting in all functions.

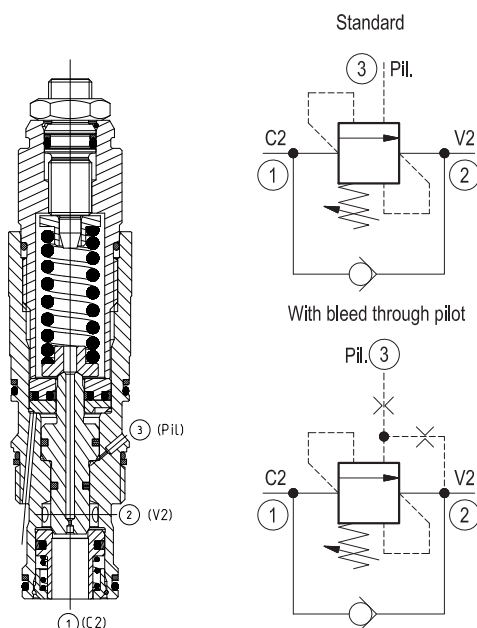
Technical data

Max. operating pressure	350 bar (5000 psi)
Max. flow	120 l/min (32 gpm)
Max. internal leakage ¹⁾	15 drops/min.
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	60 - 70 Nm (44 - 52 ft-lbs)
Weight	0.37 kg (0.82 lbs)
Cavity	SUN T-2A
Lines bodies and standard assemblies	Please refer to section "Hydraulic integrated circuit" or consult factory
Seal kit ²⁾	Code: RG12U9020110100 material no: R930005599
Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm ² /s (cSt)
Recommended degree of fluid contamination	Nominal value max. 10µm (NAS 8) / ISO 4406 19/17/14
Installation position	No restrictions
Other Technical Data	See data sheet 18350-50

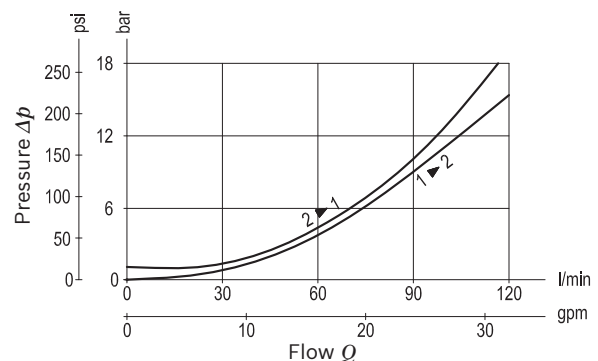
Pressure setting: at least 1.3 times the load induced pressure.

1) At 70% of pressure setting

2) Only external seals for 10 valves



Characteristic curve



Ordering code

04.52.44	X	86	Z	*	*
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Counterbalance,
standard poppet type, differential
area, counterclockwise adjustment

Series M to Z
unchanged performances and dimensions

00 Standard (Buna)
V0 Viton (FKM)

Pilot ratio
03 4:1 standard version
10 8:1 standard version
35 8:1 with bleed through pilot
42 2:1 with bleed through pilot
Without sealed pilot piston.
86 SUN cavity interchange, T-2A

SPRINGS				
		Adj. press. range bar (psi)	Pressure increase bar/turn (psi/turn)	Std. setting bar (psi) cracking pressure
for X= 03	20	70-210 (1000-3000)	40 (580)	200 (2900)
	35	140-350 (2000-5000)	125 (1813)	350 (5000)
for X= 10	20	70-210 (1000-3000)	53 (769)	200 (2900)
	35	140-350 (2000-5000)	79 (1146)	350 (5000)
for X= 35	20	70-210 (1000-3000)	40 (580)	200 (2900)
	35	140-350 (2000-5000)	125 (1813)	350 (5000)
for X= 42	20	70-210 (1000-3000)	40 (580)	200 (2900)
	35	140-350 (2000-5000)	125 (1813)	350 (5000)

Note: Special settings available with optional tamperproof cap.
Contact factory authorized representative for ordering code.

Preferred types

Type	Material number
04524403862000M	R930081279
04524403863500M	R930081281
04524410862000M	R930081285
04524410863500M	R930081286

Type	Material number
04524435863500M	R930081487
04524442862000M	R930081372
04524442863500M	R930081373

Dimensions

Technical drawing of the counterbalance valve showing dimensions and adjustment points. The drawing includes the following labels and dimensions:

- Hex 5 (0.2)
- Hex 16 15 Nm
Hex (0.63) (11) ft-lb
- Hex 28.5 (1.12)
- 87 (3.42) max
- 85.5 (3.36) max
- 21 (0.83)
- Ø27.38 (1.08)
- 1-14 UNS-2A
- 35 (1.38)
- Ø22.22 (0.88)

Turn adjustment clockwise to
decrease setting and release load

OPTION
Protection cap orange
Mat. no. R900168151

Tamper proof cap black
Mat. no. R930092782

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