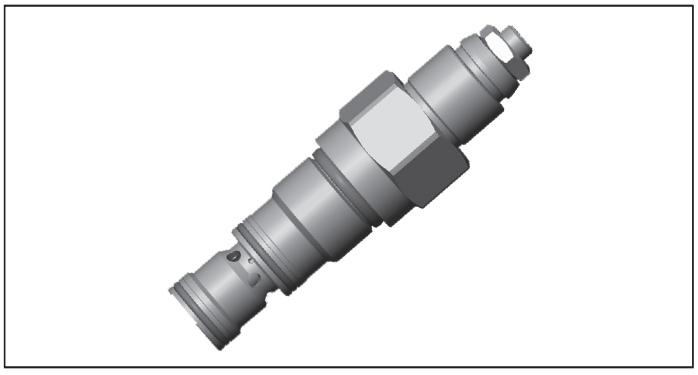
rexroth
A Bosch Company

Counterbalance, standard poppet type differential area
Common cavity, Size 12

VBSN-12A

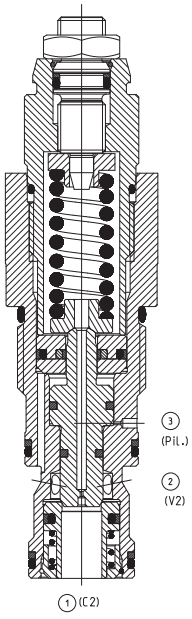
04.52.28 - X - 57 - Z

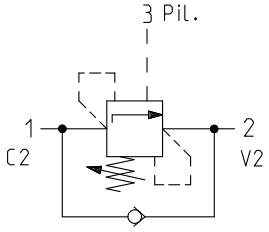
RE 18320-03
Edition: 06.2024
Replaces: 07.2023



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, 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. The spring chamber is drained to 2, and any back-pressure at 2 is additive to the pressure setting in all functions. Valve design prevents spring going solid and complete unscrewing during adjusting.





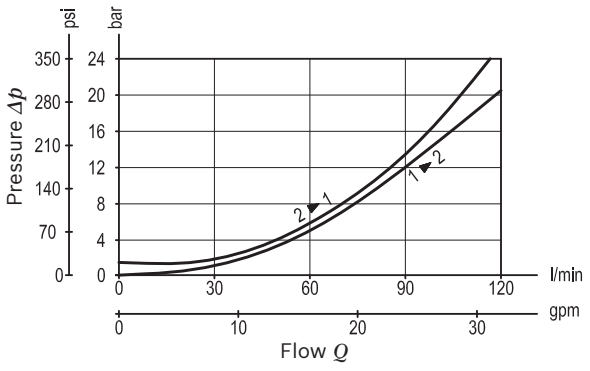
Technical data	
Max. operating pressure	350 bar (5000 psi)
Max. flow	120 l/min (32 gpm)
Max. internal leakage[1)]	15 drops/min.
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	81 - 95 Nm (60 - 70 ft-lbs)
Weight	0.39 kg (0.86 lbs)
MTTFD	150 years see RE 18350-51
Cavity	CA-12A-3C (see data sheet 18325-70)
Adjustment	according to ISO 4413 with sealed adjustment screw to prevent oil leakage during adjustment
Salt spray test	500h according to DIN EN ISO 9227:2017-07
Lines bodies and standard assemblies	Please refer to section “Hydraulic integrated circuit” or consult factory
Seal kit[2)]	Code: RG12A9010520100
	material no: R901111379
Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm²/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 and maximum 1.5 times catalogue max nominal setting.

1) At 70% of pressure setting

2) Only external seals for 10 valves

Characteristic curve



Ordering code

04.52.28	X	57	Z	*	*

Counterbalance,
standard poppet type, differential area

Pilot ratio

03 4:1

10 8:1

Without sealed pilot piston.

33 4:1

57 Common cavity, Size 12

Series M to Z
unchanged performances and dimensions

00 Standard (Buna)
V0 Viton (FKM)

		SPRINGS		
		Adj. press. range bar (psi)	Pressure increase bar/turn (psi/turn)	Std. setting bar (psi) Q=5 l/min
for X= 03	**20**	70-210 (1000-3000)	50 (725)	200 (2900)
	35	140-350 (2000-5000)	159 (2306)	350 (5000)
for X= 10	**20**	70-210 (1000-3000)	42 (609)	200 (2900)
	35	140-350 (2000-5000)	67 (972)	350 (5000)
	40			

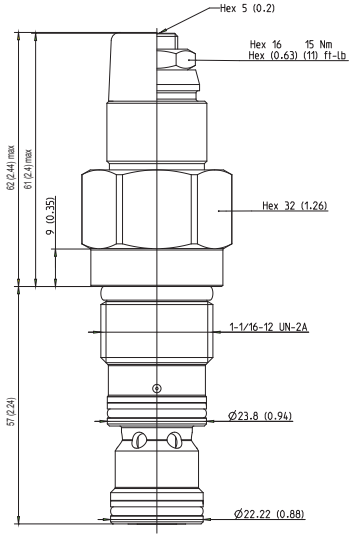
Note: Special settings available with optional tamperproof cap.
Contact factory authorized representative for ordering code.

Preferred types

Type	Material number
04522803572000M	R930081269
04522803573500M	R930081270
04522810572000M	R930081273
04522810573500M	R930081274

Type	Material number
04522810574000M	R930081275

Dimensions



OPTION
Protection cap orange
Mat. no. R900168151

Tamper proof cap black
Mat. no. R930092782

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