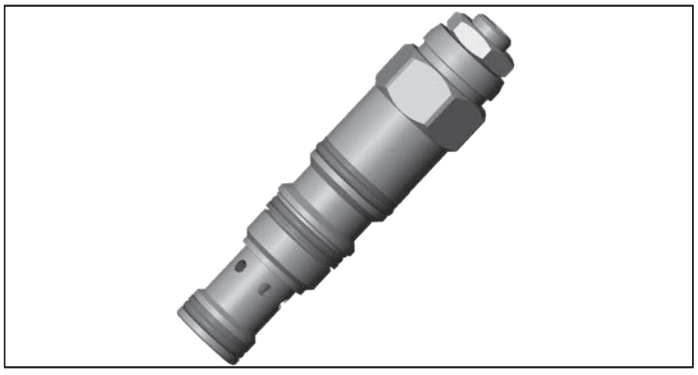
rexroth
A Bosch Company

Counterbalance, relief compensated poppet type differential area, counterclockwise adjustment Sun cavity interchange, T-11A

VBSP-08U-RS

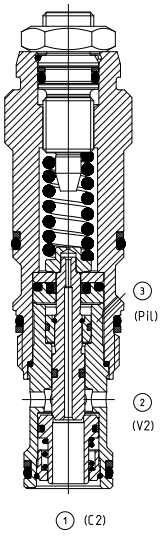
04.54.15 - X - 20 - Z

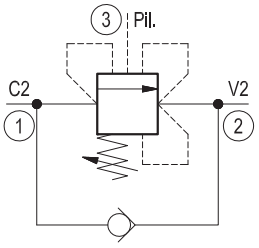
RE 18320-20
Edition: 07.2023
Replaces: 01.2021



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. The valve applies a balanced piston design allowing relief operation at the valve setting independent of back-pressure at 2. However, the piloted opening of the valve remains subject to additive pressure at port 2. Valve design prevents spring going solid and complete unscrewing during adjusting.



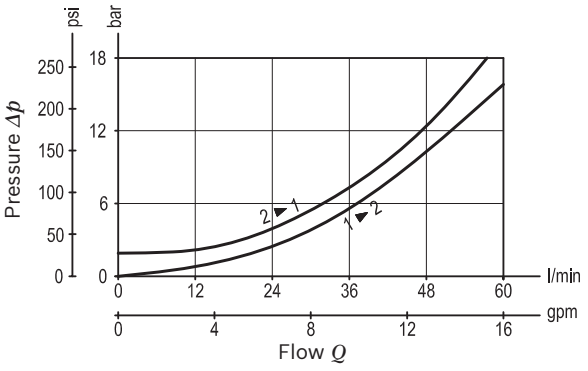


Technical data	
Max. operating pressure	350 bar (5000 psi)
Max. flow	60 l/min (16 gpm)
Max. internal leakage[1)]	5 drops/min.
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	40 - 50 Nm (30 - 37 ft-lbs)
Weight	0.19 kg (0.42 lbs)
MTTFD	150 years see RE 18350-51
Cavity	SUN T-11A
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: RG08U9020110100
	material no: R901193388
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



Dimensions [mm (inches)]

Ordering code

04.54.15	X	20	Z	*	*

Series M to Z
unchanged performances and dimensions

Counterbalance, relief compensated,
poppet type differential area,
counterclockwise adjustment

00 Standard (Buna)
V0 Viton (FKM)

Pilot ratio

03 3:1 Without sealed pilot piston

	SPRINGS		
	Adj. press. range bar (psi)	Pressure increase bar/turn (psi/ turn)	Std. setting bar (psi) cracking pressure
20	70-210 (1000-3000)	106 (1537)	200 (2900)
35	140-350 (2000-5000)	165 (2393)	350 (5000)

20 SUN cavity interchange, T-11A

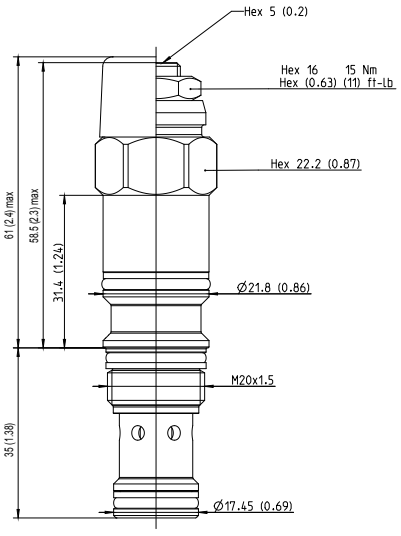
Note: Special settings available with optional tamperproof cap.
Contact factory authorized representative for ordering code.

Preferred types

Type	Material number
04541503202000M	R930081301
04541503203500M	R930081302

Type	Material number

Dimensions



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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