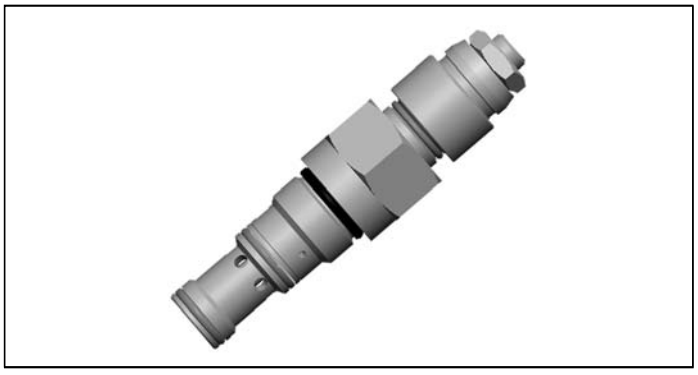
rexroth
A Bosch Company

Counterbalance, vented guided poppet type
Common cavity, Size 10

VBST-10A

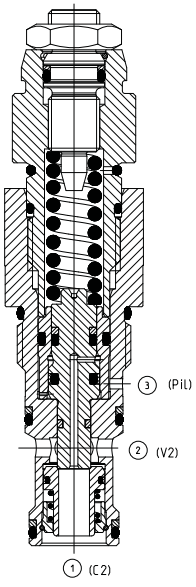
04.59.16 - X - 85 - Z

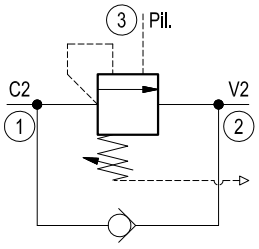
RE 18320-12
Edition: 01.2021
Replaces: 03.2016



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, 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 vented to atmosphere allowing operation of all functions independent of back-pressure at 2. Valve design prevents spring going solid and complete unscrewing during adjusting.



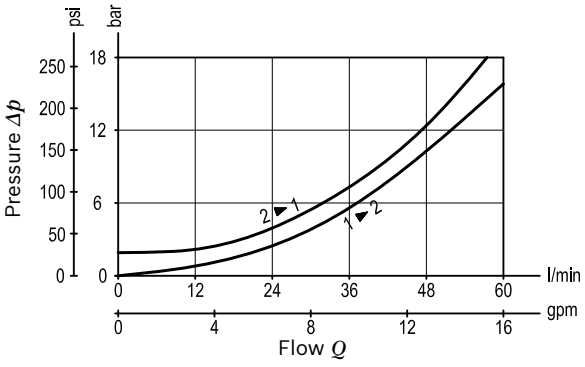


Technical data	
Max. operating pressure	350 bar (5000 psi)
Max. flow	60 l/min (16 gpm)
Max. internal leakage[1)]	15 drops/min.
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	41 - 47 Nm (30 - 35 ft-lbs)
Weight	0.21 kg (0.46 lbs)
MTTFD	150 years see RE 18350-51
Cavity	CA-10A-3C (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: RG10A9010520100
	material no: R901111367
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 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

04.59.16	X	85	Z	*	*

Series M to Z
unchanged performances and dimensions

Counterbalance, vented guided
poppet type

00 Standard (Buna)
V0 Viton (FKM)

Pilot ratio

03 3:1

	SPRINGS		
	Adj. press. range bar (psi)	Pressure increase bar/turn (psi/turn)	Std. setting bar (psi) Q=5 l/min
20	70-210 (1000-3000)	95 (1378)	200 (2900)
35	140-350 (2000-5000)	129 (1871)	350 (5000)

85 Common cavity, Size 10

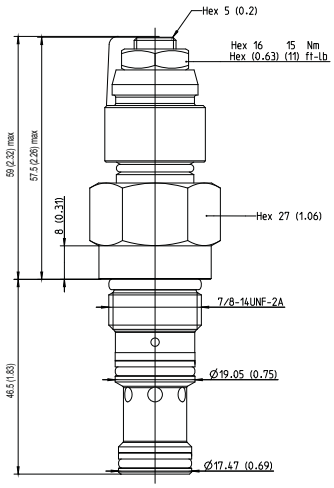
Note: Special settings available with optional tamperproof cap.
Contact factory authorized representative for ordering code.

Preferred types

Type	Material number
04591603852000M	R930081330
04591603853500M	R930081331

Type	Material number

Dimensions



OPTION 1
Protection cap orange
Mat. no. R900168151

OPTION 2
Tamperproof cap red (without Rexroth logo)
Mat. no. R93xxxxxxx

Bosch Rexroth Oil Control S.p.A.
Via Leonardo da Vinci 5
P.O. Box no. 5
41015 Nonantola – Modena, Italy
Tel. +39 059 887 611
Fax +39 059 547 848
compact-hydraulics-cv@boschrexroth.com
www.boschrexroth.com/compacthydraulics