

Counterbalance, vented guided poppet type, counterclockwise adjustment Sun cavity interchange, T-2A

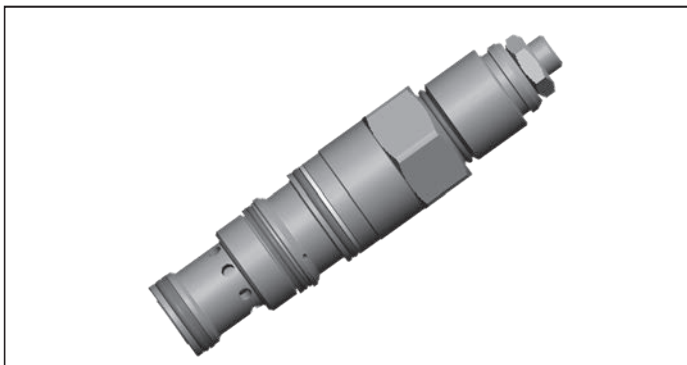
VBST-12U-RS

04.59.30 - X - 86 - Z

RE 18320-24

Edition: 07.2023

Replaces: 01.2021



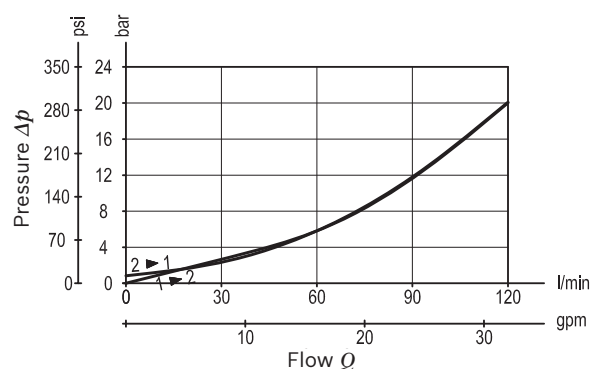
Technical data

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 (45 - 50 ft-lbs)
Weight	0.4 kg (0.88 lbs)
MTTFD	150 years see RE 18350-51
Cavity	SUN T-2A
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
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)
Filtration	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.

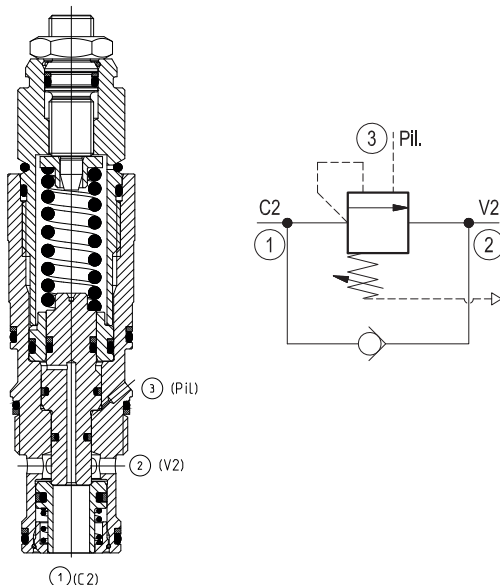
- 1) At 70% of pressure setting
- 2) Only external seals for 10 valves

Characteristic curve



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, 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.



Ordering code

04.59.30	X	86	Z	*	*
-----------------	----------	-----------	----------	----------	----------

Counterbalance, vented guided poppet type, counterclockwise adjustment

Pilot ratio

03 4:1

86 SUN cavity interchange, T-2A

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) cracking pressure
20	70-210 (1000-3000)	39 (566)	200 (2900)
35	140-350 (2000-5000)	123 (1784)	350 (5000)

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

Preferred types

Type	Material number
04593003862000M	R930081336
04593003863500M	R930081337

Type	Material number

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
 35 (1.38)
 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

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

© This document, as well as the data, specifications and other information set forth in it, are the exclusive property of Bosch Rexroth Oil Control S.p.a.. It may not be reproduced or given to third parties without its consent. The data specified above only serve to describe the product. No statements concerning a certain condition or suitability for a certain application can be derived from our information. The information given does not release the user from the obligation of own judgment and verification. It must be remembered that our products are subject to a natural process of wear and aging. Subject to change.