

Counterbalance, relief compensated poppet type differential area, for motor applications Sun cavity interchange, T-17A

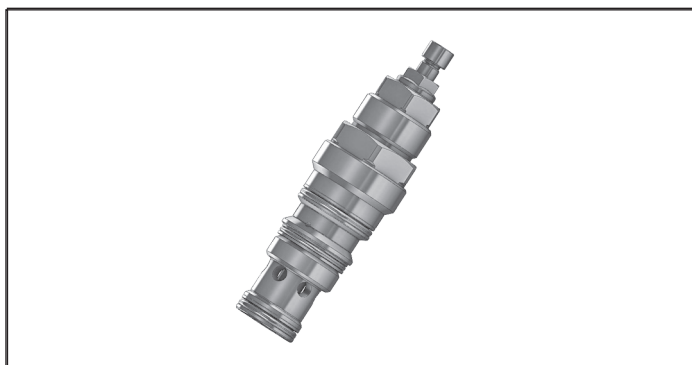
VBSP-16U-RF

04.54.19 - X - 47 - Z

RE 18320-32

Edition: 03.2016

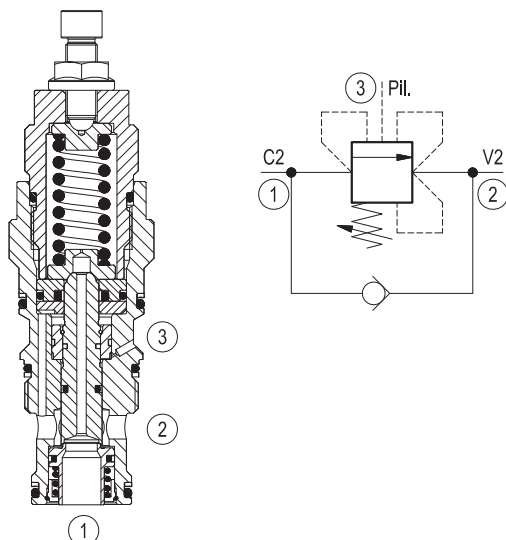
Replaces: 09.2015



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 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. The special design of the poppet allows low delta P during relief function and makes the valve especially suitable for hydraulic motors control.

Valve especially designed for motor applications, where it is requested a low delta P during relief function.



Technical data

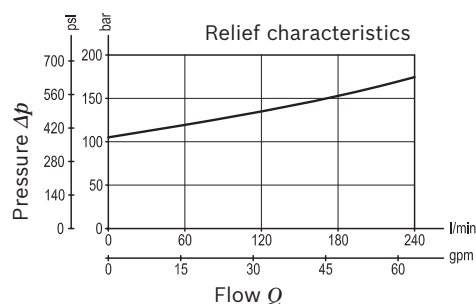
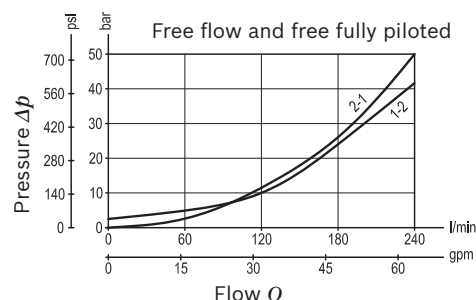
Max. operating pressure	350 bar (5000 psi)
Max. flow	240 l/min (63 gpm)
Max. internal leakage ¹⁾	15 drops/min.
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	200 - 215 Nm (147 - 159 ft-lbs)
Weight	0.8 kg (1.76 lbs)
Cavity	SUN T-17A
Line bodies and standard assemblies	Please refer to section "Hydraulic integrated circuit" or consult factory
Seal kit ²⁾	Code: RG16U9020110100 material no: R930000995
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

04.54.19	X	47	Z	00	*
----------	---	----	---	----	---

Counterbalance,relief compensated poppet type differential area, for motor applications

Pilot ratio

10 8:1

47 SUN cavity interchange, T-17A

Series 0/A to L unchanged performances and dimensions

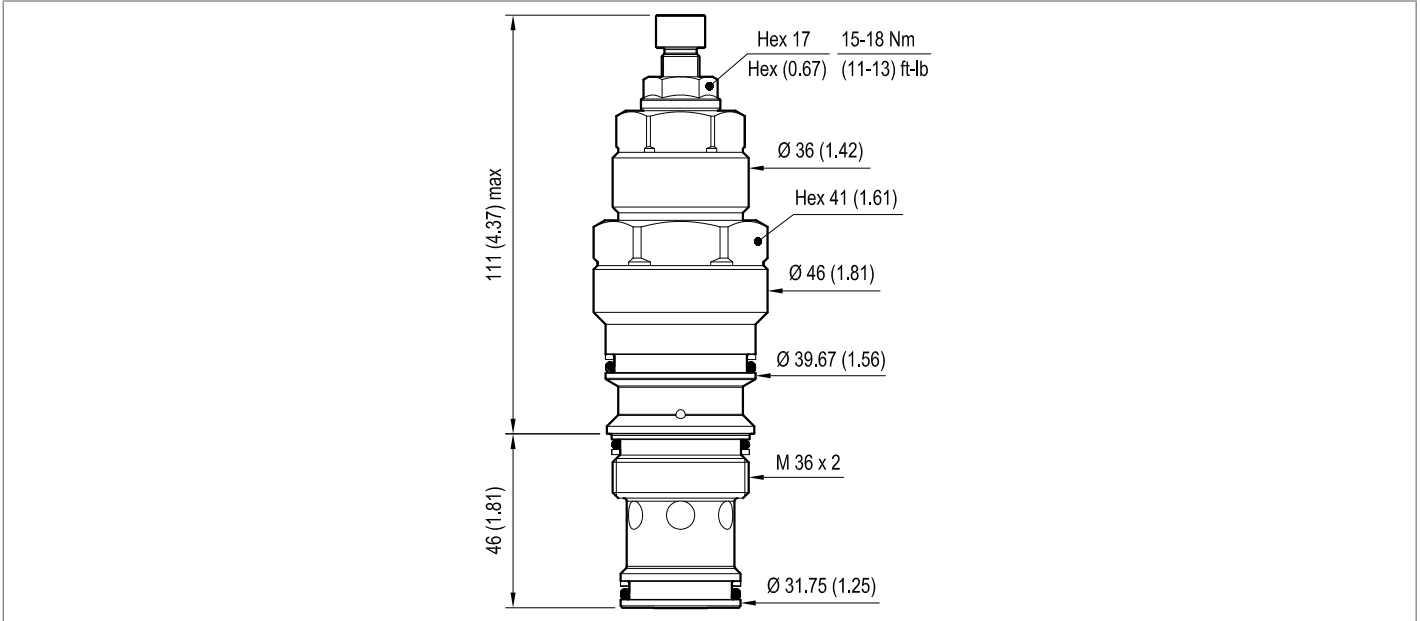
Version and options standard

SPRINGS		
Adj. press. range bar (psi)	Pressure increase bar/turn (psi/turn)	Std. setting bar (psi) Q=5 l/min
35	100-350 (1450-5000)	41 (595) 350 (5000)

Note: Special settings available. Contact factory authorized representative for ordering code.

Preferred types			
Type	Material number	Type	Material number
04541910473500A	R930056510		

Dimensions



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.