

# Counterbalance, 4 port vented, poppet type external drain, counterclockwise adjustment Sun cavity interchange, T-24A

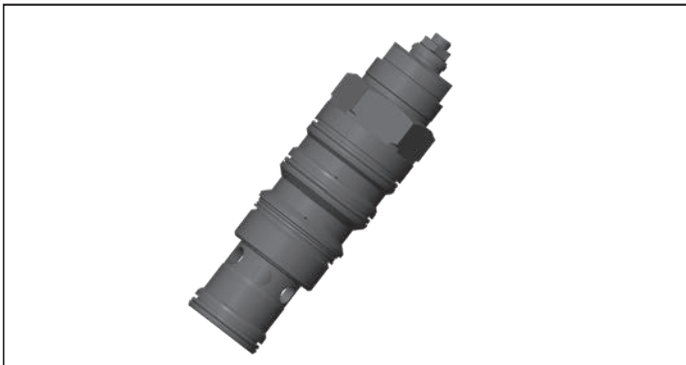
VBSY-25U-RS

04.59.35 - X - 50 - Z

**RE 18320-36**

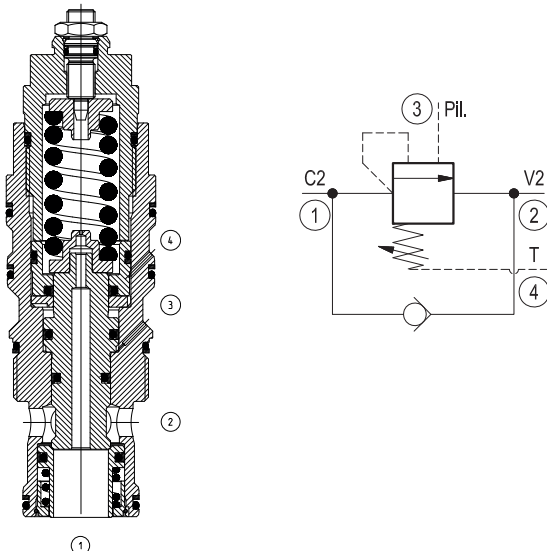
Edition: 07.2023

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, 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 4, allowing operation of all functions independent of back-pressure at 2. Any back-pressure at 4 is additive to the pressure setting in all functions. Valve design prevents spring going solid and complete unscrewing during adjusting.



## Technical data

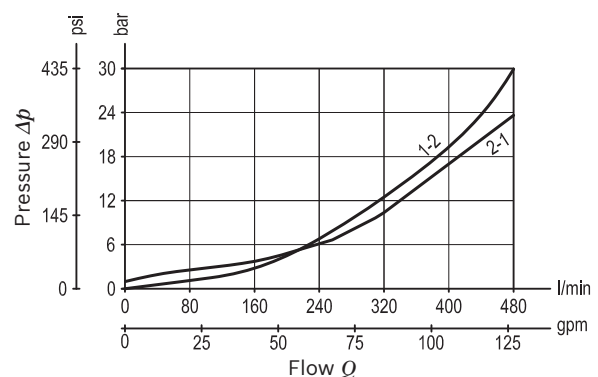
Max. operating pressure	420 bar (6090 psi)
Max. flow	480 l/min (127 gpm)
Max. internal leakage <sup>1)</sup>	15 drops/min.
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	475 - 500 Nm (352 - 370 ft-lbs)
Weight	1.7 kg (3.7 lbs)
MTTFD	150 years see RE 18350-51
Cavity	SUN T-24A
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 <sup>2)</sup>	Code: RG25U4020110100 material no: R930049586
Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm <sup>2</sup> /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

04.59.35	X	50	Z	*	*	
Counterbalance, 4 port vented poppet type external drain, counterclockwise adjustment		Series M to Z unchanged performances and dimensions				
Pilot ratio		00 Standard (Buna) V0 Viton (FKM)				
25 5:1						
50 SUN cavity interchange, T-24A		SPRINGS				
		Adj. press. range bar (psi)			Pressure increase bar/turn (psi/turn)	Std. setting bar (psi) cracking
		20 70-280 (1015-4060)			80 (1160)	200 (2900)
		42 200-420 (2900-6000)			118 (1711)	350 (5000)
Note: Special settings available with optional tamperproof cap. Contact factory authorized representative for ordering code.						

Preferred types

Type	Material number	Type	Material number
04593525502000M	R930080001		
04593525504200M	R930080639		

Dimensions

Technical drawing of the counterbalance valve showing dimensions and adjustment instructions.

Dimensions (mm):

- Hex. 5 (0.2)
- Hex. 16 15 Nm Hex (0.63) (10) ft-lb
- Hex. 36 (1.42)
- Hex 48 (1.89)
- 117.6 (4.63) max.
- 187.6 (7.39) max.
- 48 (1.89)
- 26 (1.02)
- Ø52.37 (2.06)
- M48x2-6a
- Ø41.27 (1.62)
- 88.1 (3.5)

Turn adjustment clockwise to decrease setting and release load

OPTION

Protection cap orange  
Mat. no. R900168151

Tamper proof cap black  
Mat. no. R930092782