

Counterbalance, standard poppet type
differential area, counterclockwise adjustment
SUN cavity interchange, T-2A

VBSN-12U-RS

04.52.44 - X - 86 - Z

RE 18320-18

Edition: 03.2016

Replaces: 01.2010



| 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 (44 - 52 ft-lbs) |
| Weight | 0.37 kg (0.82 lbs) |
| Cavity | SUN T-2A |
| Lines bodies and standard assemblies | Please refer to section "Hydraulic integrated circuit" or consult factory |
| 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) |
| 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 |

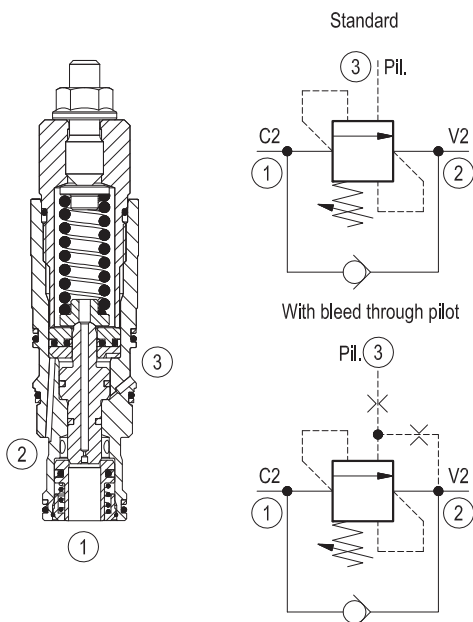
Description

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. Any back-pressure at 2 is additive to the pressure setting in all functions.

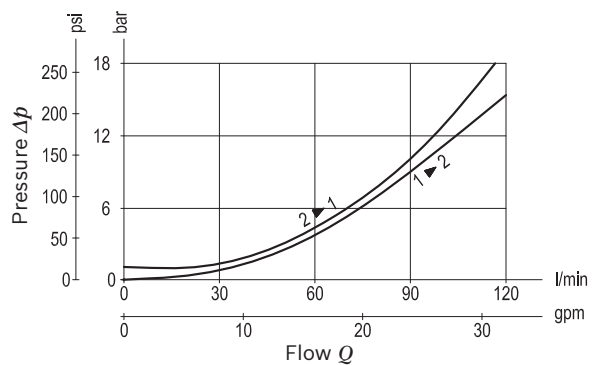
Pressure setting: at least 1.3 times the load induced pressure.

1) At 70% of pressure setting

2) Only external seals for 10 valves



Characteristic curve



Ordering code

| | | | | | |
|-----------------|----------|-----------|----------|-----------|----------|
| 04.52.44 | X | 86 | Z | 00 | * |
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Counterbalance, standard poppet type, differential area, counterclockwise adjustment

Series 0/A to L unchanged performances and dimensions

Version and options standard

| |
|--|
| Pilot ratio |
| 03 4:1 standard version |
| 10 8:1 standard version |
| 42 2:1 with bleed through pilot |
| 86 SUN cavity interchange, T-2A |

| | | SPRINGS | | |
|-----------|-----------|-----------------------------|---------------------------------------|--|
| | | Adj. press. range bar (psi) | Pressure increase bar/turn (psi/turn) | Std. setting bar (psi) cracking pressure |
| for X= 03 | 20 | 70-210 (1000-3000) | 40 (580) | 200 (2900) |
| | 35 | 140-350 (2000-5000) | 125 (1813) | 350 (5000) |
| for X= 10 | 20 | 70-210 (1000-3000) | 53 (769) | 200 (2900) |
| | 35 | 140-350 (2000-5000) | 79 (1146) | 350 (5000) |
| for X= 42 | 20 | 70-210 (1000-3000) | 40 (580) | 200 (2900) |
| | 35 | 140-350 (2000-5000) | 125 (1813) | 350 (5000) |

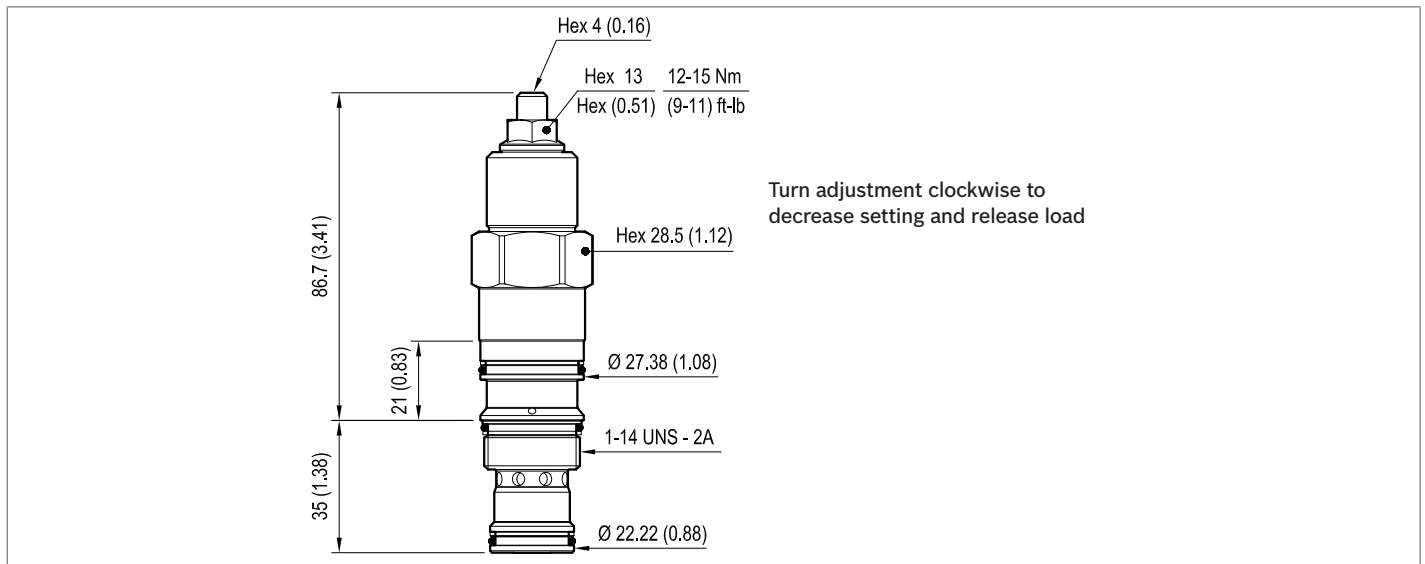
Note: Special settings available. Contact factory authorized representative for ordering code.

Preferred types

| Type | Material number |
|-----------------|-----------------|
| 045244038620000 | R930006116 |
| 045244038635000 | R930006117 |
| 045244108620000 | R930006118 |

| Type | Material number |
|-----------------|-----------------|
| 045244108635000 | R930006119 |
| 045244428620000 | R930006120 |
| 045244428635000 | R930006121 |

Dimensions



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