

Directional spool type, direct acting,
external pilot external vent
Common cavity, Size 16

VDSJ-16A

04.77.19 - X - 27 - Z

RE 18320-81

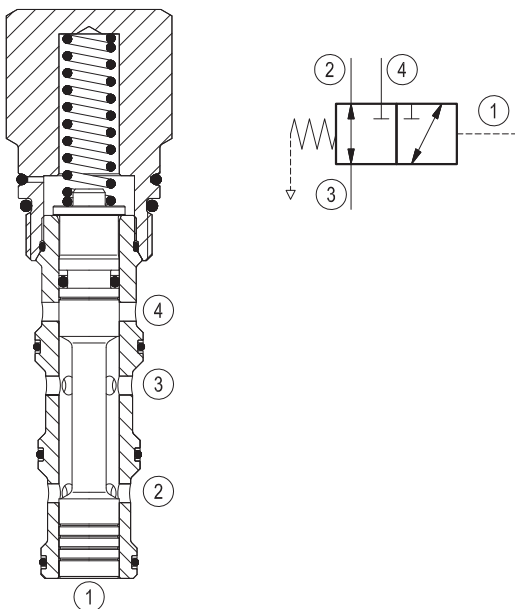
Edition: 10.2021

Replaces: 03.2016



Description

Flow is allowed bi-directionally between 2 and 3, and blocked at 4 until pressure at 1 rises to overcome the spring bias against the spool. When this bias pressure is surpassed, the spool shifts, allowing bi-directional flow between 3 and 4 while blocking 2. The spring chamber is sealed and vented to atmosphere, allowing consistent shifting with only spring bias pressure independent of conditions at 2 or 3.



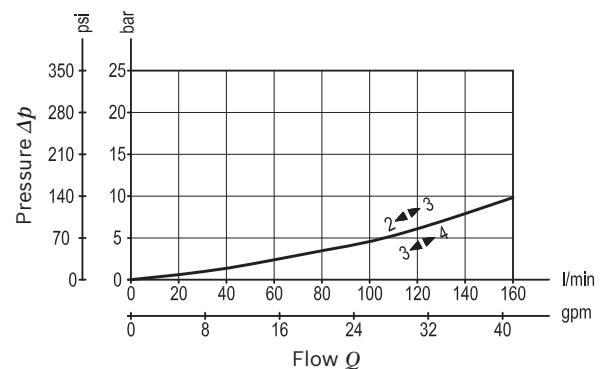
Technical data

| | |
|---|--|
| Max. operating pressure | 350 bar (5000 psi) |
| Max. flow | 160 l/min. (43 gpm) |
| Max. internal leakage ¹⁾ | 80 cm ³ /min. (5 cu.in./min.) |
| Pilot displacement volume | 1.61 cm ³ (0.1 cu.in) |
| Fluid temperature range | -30 to 100 °C (-22 to 212 °F) |
| Installation torque | 108 - 122 Nm (80 - 90 ft-lbs) |
| Weight | 0.74 kg (1.63 lbs) |
| Cavity | CA-16A-4N (see data sheet 18325-70) |
| Lines bodies and standard assemblies | Please refer to section "Hydraulic integrated circuit" or consult factory |
| Seal kit ²⁾ | Code: RG16A4010530100 material no: R930000973 |
| 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 |

1) Measured at 200 bar (2900 psi)

2) Only external seals for 10 valves

Characteristic curve



Ordering code

| | | | | | |
|----------|---|----|---|----|---|
| 04.77.19 | X | 27 | Z | 00 | * |
|----------|---|----|---|----|---|

Series 0/A to L
unchanged performances and dimensions

Version and options standard

Directional spool type, direct acting
external pilot external vent

O-Ring on pilot piston

00 No O-Ring

27 Common cavity, Size 16

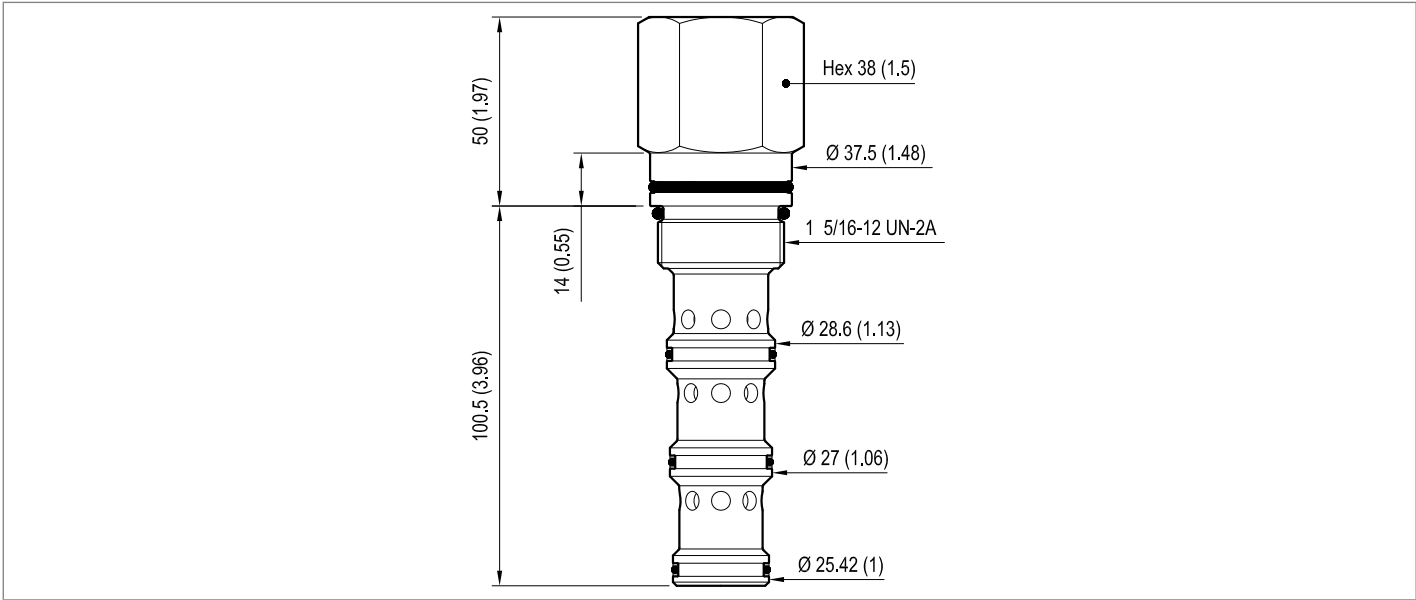
| SPRINGS | |
|---------------------------|----------------|
| Std. setting bar (psi) | |
| 05 | 5 (73) ± 20% |
| 11 | 11 (160) ± 10% |

Preferred types

| Type | Material number |
|-----------------|-----------------|
| 04771900270500A | R930006976 |
| 04771900271100A | R930006977 |

| Type | Material number |
|------|-----------------|
| | |
| | |

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.