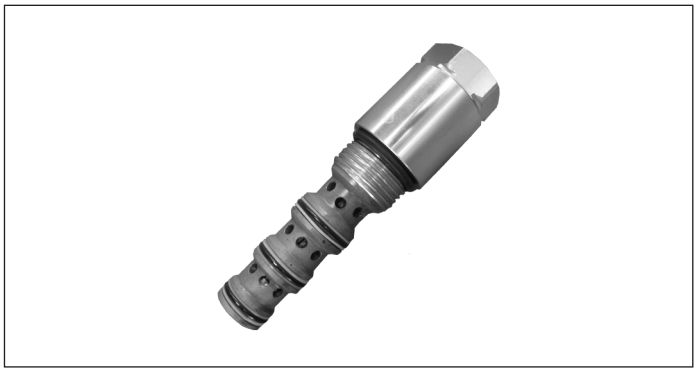
rexroth
A Bosch Company

Logic element, pressure compensator with dynamic load sense Common cavity, Size 10

VRLA-10A-D

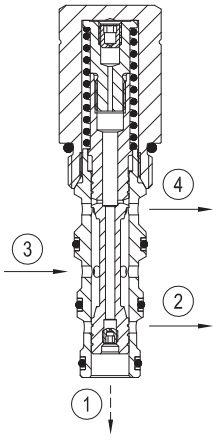
04.84.10 - X - 85 - Z

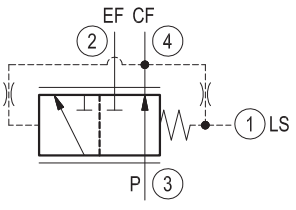
RE 18321-90
Edition: 03.2016
Replaces: 01.2010



Description

The valve delivers priority flow, from 0 to max. available, on demand to port 4, while compensating for load changes downstream. In neutral, all input flow at 3 is given to the priority port 4. Pressure at 4 is applied to the spool against a spring force so that increasing pressure causes increasing by-pass of input flow to port 2. Load sense pressure at port 1, obtained between the downstream control and the load, assists the spring, and moves the spool back toward supplying priority flow. Comparison between priority outlet and LS pressure seeks a constant differential pressure over the control valve. As load and flow control change, the priority flow is increased or decreased to satisfy the demand establishing that differential. An orifice connects the priority outlet port and the spring chamber, giving a small pressure assist to the spring, enhancing response time to provide priority flow in the event that load sense pressure momentarily drops.

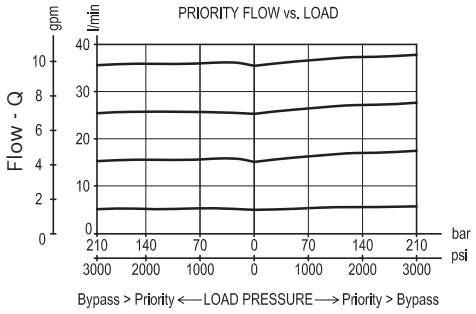


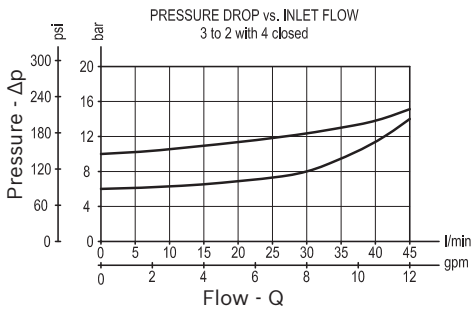


Technical data	
Max. operating pressure	350 bar (5000 psi)
Max. inlet flow	45 l/min. (12 gpm)
Max. priority flow	30 l/min. (8 gpm) for Z=05 version 40 l/min. (11 gpm) for Z=10 version
Fluid temperature range	-30 to 100 °C (-22 to 212 °F)
Installation torque	41 - 47 Nm (30 - 35 ft-lbs)
Weight	0.22 kg (0.49 lbs)
Cavity	CA-10A-4N (see data sheet 18325-70)
Lines bodies and standard assemblies	Please refer to section “Hydraulic integrated circuit” or consult factory
Seal kit[1)]	Code: RG10A4010530100
	material no: R901111373
Fluids	Mineral-based or synthetics with lubricating properties at viscosities of 10 to 500 mm²/s (cSt)
Recommended degree of fluid contamination	Nominal value max. 10µm (NAS 8) / ISO 4406 19/17/14
Installation	No restrictions
Other Technical Data	See data sheet 18350-50

1) Only external seals for 10 valves

Characteristic curve





Ordering code

04.84.10	X	85	Z	00	*

Logic element, pressure compensator with dynamic load sense

Series 0/A to L
unchanged performances and dimensions

Version and options standard

LS orifice diameter mm (inches)

05	0.5 (0.02)
06	0.6 (0.02)
08	0.8 (0.03)
09	0.9 (0.04)

85 Common cavity, Size 10

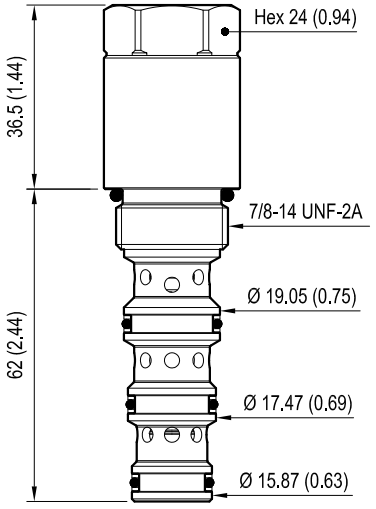
		SPRINGS
		Bias spring bar (psi)
05	for X=06 and X=09	5.5 (80) ± 20%
10	for X=05 and X=08	10 (145) ± 15%

Preferred types

Type	Material number
048410058510000	R930001195
048410068505000	R930001193
048410088510000	R930001196
048410098505000	R930001194

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