

# Logic element, pressure compensator with dynamic load sense Common cavity, Size 12

VRLA-12A-D

04.84.10 - X - 57 - Z

**RE 18321-83**

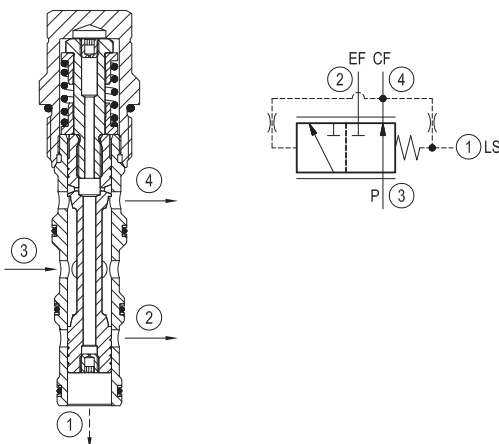
Edition: 07.2017

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## 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.

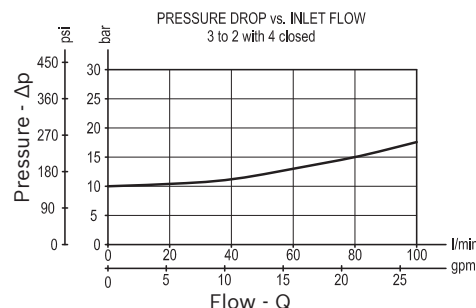
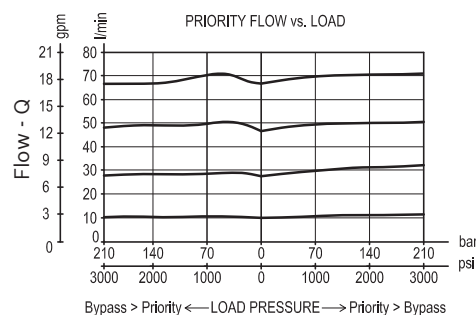


## Technical data

|   |  |
|---|--|
| Max. operating pressure                   | 350 bar (5000 psi)   |
| Max. inlet flow                           | 100 l/min. (26 gpm)  |
| Max. priority flow                        | 80 l/min. (21 gpm)   |
| Fluid temperature range                   | -30 to 100 °C (-22 to 212 °F)  |
| Installation torque                       | 81 - 95 Nm (60 - 70 ft-lbs)  |
| Weight                                    | 0.32 kg (0.71 lbs)   |
| MTTFD                                     | 150 years see RE 18350-51  |
| Cavity                                    | CA-12A-4N (see data sheet 18325-70)  |
| Lines bodies and standard assemblies      | Please refer to section "Hydraulic integrated circuit" or consult factory                                    |
| Seal kit <sup>1)</sup>                    | Code: RG12A4010530100<br>material no: R930001660   |
| 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                              | No restrictions  |
| Other Technical Data                      | See data sheet 18350-50  |

<sup>1)</sup> Only external seals for 10 valves

## Characteristic curve



Ordering code

|   |  |          |   |    |   |    |   |
|---|--|----------|---|----|---|----|---|
| Ordering code   |  | 04.84.10 | X | 57 | 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)                             |  |          |   |    |   |    | SPRINGS   |
| 05 0.5 (0.02)   |  |          |   |    |   |    | Bias spring bar (psi)                                 |
| 07 0.7 (0.03)   |  |          |   |    |   |    |   |
| 10 1.0 (0.04)   |  |          |   |    |   |    |   |
|   |  |          |   |    |   | 10 | 10 (145) ± 15%  |
| 57 Common cavity, Size 12                                   |  |          |   |    |   |    |   |

Preferred types

| Type            | Material number | Type | Material number |
|-----------------|-----------------|------|-----------------|
| 048410055710000 | R930001086      |      |                 |
| 048410075710000 | R930001089      |      |                 |
| 048410105710000 | R930001097      |      |                 |

Dimensions

