

**CONFIGURATION**

|               |                  |  |
|---------------|------------------|--|
| <b>L</b>      | Control          | Standard Screw Adjustment                                      |
| <b>D</b>      | Adjustment Range | 25 - 800 psi (1,7 - 55 bar), 200 psi (14 bar) Standard Setting |
| <b>N</b>      | Seal Material    | Buna-N   |
| <b>(none)</b> | Material/Coating | Standard Material/Coating                                      |

Normally closed, direct-acting, 3-way directional cartridges are switching devices typically used in moderate flow circuits. They can be used by themselves or to actuate larger pilot-operated directional cartridges or logic cartridges. The valve shifts when the pressure differential between port 1 and port 4 exceeds the setting.

**TECHNICAL DATA**

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

|  |                         |
|--|-------------------------|
| Cavity   | T-21A                   |
| Series   | 1                       |
| Capacity   | 28 L/min.               |
| Factory Pressure Settings Established at               | 15 L/min.               |
| Maximum Operating Pressure                             | 350 bar                 |
| Maximum Valve Leakage at 110 SUS (24 cSt)              | 30 cc/min.              |
| Adjustment - No. of CW Turns from Min. to Max. setting | 5                       |
| Valve Hex Size   | 22,2 mm                 |
| Valve Installation Torque                              | 41 - 47 Nm              |
| Adjustment Screw Internal Hex Size                     | 4 mm                    |
| Locknut Hex Size                                       | 15 mm                   |
| Locknut Torque   | 9 - 10 Nm               |
| Seal kit - Cartridge                                   | Buna: 990021007         |
| Seal kit - Cartridge                                   | Polyurethane: 990021002 |
| Seal kit - Cartridge                                   | Viton: 990021006        |
| Model Weight   | 0.18 kg.                |

**NOTES** For Series 1 cartridges configured with an O control (panel mount handknob), a .75 in. (19 mm) diameter hole is required in the panel.

**CONFIGURATION OPTIONS**

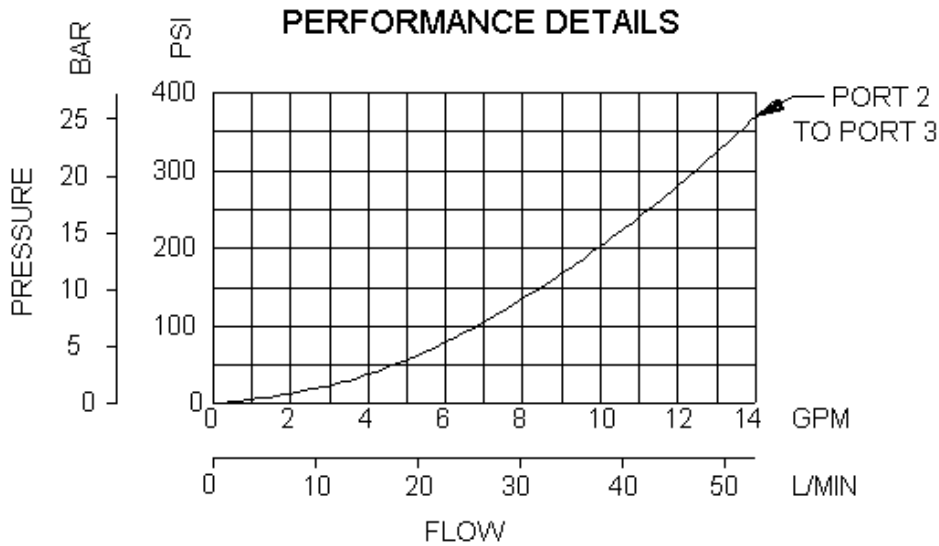
**Model Code Example: DRBNLDN**

| <b>CONTROL</b>                          | <b>(L) ADJUSTMENT RANGE</b>  | <b>(D) SEAL MATERIAL</b> | <b>(N) MATERIAL/COATING</b>     |
|---|--|--------------------------|---------------------------------|
| <b>L</b> Standard Screw Adjustment      | <b>D</b> 25 - 800 psi (1,7 - 55 bar), 200 psi (14 bar) Standard Setting    | <b>N</b> Buna-N          | Standard Material/Coating       |
| <b>C</b> Tamper Resistant - Factory Set | <b>A</b> 500 - 3000 psi (35 - 210 bar), 1000 psi (70 bar) Standard Setting | <b>V</b> Viton           | IAP Stainless Steel, Passivated |
| <b>K</b> Handknob                       | <b>B</b> 50 - 1500 psi (3,5 - 105 bar), 200 psi (14 bar) Standard Setting  |                          |                                 |
| <b>O</b> Handknob with Panel Mount      | <b>E</b> 25 - 400 psi (1,7 - 28 bar), 200 psi (14 bar) Standard Setting    |                          |                                 |
|   | <b>S</b> 25 - 200 psi (1,7 - 14 bar), 100 psi (7 bar) Standard Setting     |                          |                                 |
|   | <b>W</b> 750 - 4500 psi (50 - 315 bar), 1000 psi (70 bar) Standard Setting |                          |                                 |

## TECHNICAL FEATURES

- Port 3 can be used as a work port.
- The flow path between port 2 and port 3 is bidirectional.
- Because of their direct-acting design, these cartridges feature low internal leakage and low pilot flow consumption.
- Direct-acting and pilot-operated versions of these valves are interchangeable. They fit the same cavities and have the same flow paths.
- Pressure at port 4 is directly additive to the setting of the valve.
- This valve is not bistable; it is capable of modulating between the two positions shown.
- Maximum pressure at port 3 should be limited to 3000 psi (210 bar). This is due to fatigue strength limits not hydraulic operating limits.
- Incorporates the Sun floating style construction to minimize the possibility of internal parts binding due to excessive installation torque and/or cavity/cartridge machining variations.

## PERFORMANCE CURVES



## RELATED MODELS

- [DRBNX](#) 2-way, direct-acting, fixed setting, directional valve with drain to port 4 - normally closed