



### CONFIGURATION

|                                |                    |                           |
|--------------------------------|--------------------|---------------------------|
| <b>L</b>                       | Control            | Standard Screw Adjustment |
| <b>C</b>                       | Reverse Flow Check | 30 psi (2 bar)            |
| <b>N</b>                       | Seal Material      | Buna-N                    |
| <b>(none)</b> Material/Coating |                    |                           |

Needle valves with reverse-flow check are fully adjustable orifices used to regulate flow. They are infinitely adjustable from fully closed up to the maximum orifice diameter. An integral high-capacity check valve provides unrestricted flow from port 2 to port 1. They are not pressure compensated.

### TECHNICAL DATA

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

|   |                         |
|---|-------------------------|
| Cavity  | T-13A                   |
| Series  | 1                       |
| Capacity  | 28 L/min. (4,8 mm)      |
| Maximum Operating Pressure                                    | 350 bar                 |
| Maximum Valve Leakage at 110 SUS (24 cSt)                     | 0,7 cc/min.             |
| Adjustment - No. of CCW Turns from Fully Closed to Fully Open | 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: 990010007         |
| Seal kit - Cartridge  | EPDM: 990010014         |
| Seal kit - Cartridge  | Polyurethane: 990010002 |
| Seal kit - Cartridge  | Viton: 990010006        |
| Model Weight  | 0.14 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: NCCBLCN**

| <b>CONTROL</b>                                | <b>(L) REVERSE FLOW CHECK</b> | <b>(C) SEAL MATERIAL</b> | <b>(N) MATERIAL/COATING</b>     |
|---|-------------------------------|--------------------------|---------------------------------|
| <b>L</b> Standard Screw Adjustment            | <b>C</b> 30 psi (2 bar)       | <b>N</b> Buna-N          | Standard Material/Coating       |
| <b>H</b> Calibrated Handknob with Detent Lock | <b>A</b> 4 psi (0,3 bar)      | <b>E</b> EPDM            | /AP Stainless Steel, Passivated |
| <b>K</b> Handknob                             | <b>E</b> 75 psi (5 bar)       | <b>V</b> Viton           | /LH Mild Steel, Zinc-Nickel     |
| <b>R</b> Capped Screw Adjustment              |                               |                          |                                 |
| <b>Y</b> Tri-Grip Handknob                    |                               |                          |                                 |

### TECHNICAL FEATURES

- All 2-port flow control cartridges are physically and functionally interchangeable (i.e. same flow path, same cavity for a given frame size). However, cartridge extension dimensions from the mounting surface may vary.
- Because needle valves are non-compensating devices, the fixed orifice size will regulate flow through the valve in proportion to the square root of the pressure differential across ports 1 and 2.
- The sharp-edged orifice design minimizes flow variations due to viscosity changes.
- Cartridges configured with EPDM seals are for use in systems with phosphate ester fluids. Exposure to petroleum based fluids, greases and lubricants will damage the seals.

### PERFORMANCE CURVES

