



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-18A |
| Series | 4 |
| Capacity | 30 gpm (.38 inch) |
| Maximum Operating Pressure | 5000 psi |
| Adjustment - No. of CCW Turns from Fully Closed to Fully Open | 5 |
| Maximum Valve Leakage at 110 SUS (24 cSt) | 5 drops/min. |
| Valve Hex Size | 1 5/8 in. |
| Valve Installation Torque | 350 - 375 lbf ft |
| Adjustment Screw Internal Hex Size | 5/32 in. |
| Locknut Hex Size | 9/16 in. |
| Locknut Torque | 80 - 90 lbf in. |
| Model Weight | 2.68 lb. |
| Seal kit - Cartridge | Buna: 990-018-007 |
| Seal kit - Cartridge | Polyurethane: 990-018-002 |
| Seal kit - Cartridge | Viton: 990-018-006 |

OPTION SELECTION EXAMPLE: NCGCLCN

| CONTROL | (L) REVERSE FLOW CHECK | (C) SEAL MATERIAL | (N) MATERIAL/COATING |
|---|---------------------------|-------------------|------------------------------------|
| L Standard Screw Adjustment | C 30 psi (2 bar) | N Buna-N | Standard Material/Coating |
| H Calibrated Handknob with Detent Lock | A 4 psi (0,3 bar) | V Viton | /LH Mild Steel, Zinc-Nickel |
| K Handknob | B 15 psi (1 bar) | | |
| Y Tri-Grip Handknob | D 50 psi (3,5 bar) | | |

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.
- A balanced adjustment mechanism allows for easy adjustment even at high pressures.
- The sharp-edged orifice design minimizes flow variations due to viscosity changes.
- 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

