sunhydraulics.com/model/NCEC

CONFIGURATION

L	Control	Standard Screw Adjustment
C	Reverse Flow Check	30 psi (2 bar)
N	Seal Material	Buna-N
(none) Material/Coating		Standard 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-5A
Series	2
Capacity	3 gpm (.13 inch)
Maximum Operating Pressure	5000 psi
Maximum Valve Leakage at 110 SUS (24 cSt)	5 drops/min.
Adjustment - No. of CCW Turns from Fully Closed to Fully Open	5
Valve Hex Size	1 1/8 in.
Valve Installation Torque	45 - 50 lbf ft
Adjustment Screw Internal Hex Size	5/32 in.
Locknut Hex Size	9/16 in.
Locknut Torque	80 - 90 lbf in.
Seal kit - Cartridge	Buna: 990203007
Seal kit - Cartridge	Viton: 990203006
Model Weight	0.60 lb.

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: NCECLCN

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	**E** 75 psi (5 bar)		
Y 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.
- 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

Reverse Flow Pressure Drop with Needle Closed

P = psi vs Q = GPM

Reverse Flow Pressure Drop with Needle Closed

P = bar vs Q = L/min

Adjustment Sensitivity at 100 psi Differential

Q = GPM vs Number of Turns

Adjustment Sensitivity at 7 bar Differential

Q = L/min. vs Number of Turns