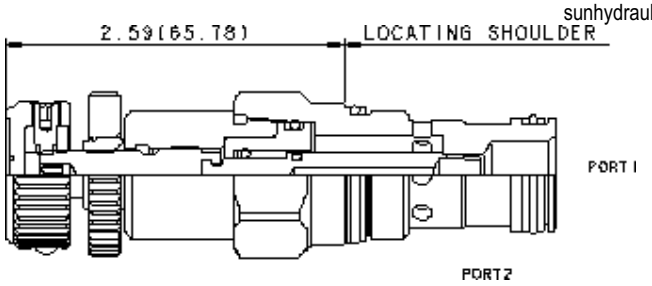
MODEL
NFDC

Fully adjustable needle valve
SERIES 2 / CAPACITY: 12 gpm (.25 inch) / CAVITY: T-5A

sunhydraulics.com/model/NFDC



CONFIGURATION

K	Control	Handknob
A	Maximum Orifice Diameter	.25 in. (6,4 mm)
N	Seal Material	Buna-N
(none)	Material/Coating	Standard Material/Coating

Needle valves are fully adjustable orifices used to regulate flow. They are infinitely adjustable from fully closed up to the maximum orifice diameter. They are not pressure compensated and may be used as flow controls or as shutoff valves.

TECHNICAL DATA

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

Cavity	T-5A
Series	2
Capacity	12 gpm (.25 inch)
Maximum Operating Pressure	5000 psi
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	EPDM: 990203014
Seal kit - Cartridge	Viton: 990203006
Model Weight	0.69 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: NFDCKAN

CONTROL (K)	MAXIMUM ORIFICE DIAMETER (A)	SEAL MATERIAL (N)	MATERIAL/COATING
K Handknob	**A** .25 in. (6,4 mm)	**N** Buna-N	Standard Material/Coating
L Standard Screw Adjustment	**B** .12 in. (3,0 mm)	**E** EPDM	**/AP** Stainless Steel, Passivated
H Calibrated Handknob with Detent Lock		**V** Viton	**/LH** Mild Steel, Zinc-Nickel
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.
- The flow path through this valve is bi-directional. The preferred path is port 1 to 2, to allow interchangeability with other flow controls.
- There is no leakage when the adjustment mechanism is turned to the shut-off position.
- 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.

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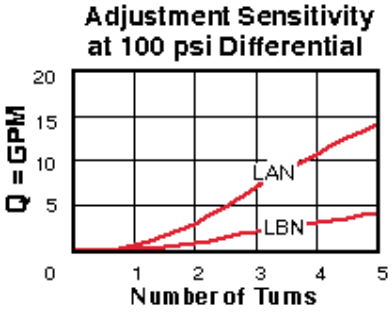
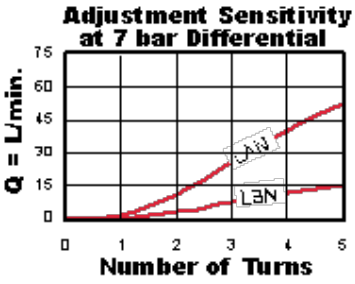
PERFORMANCE CURVES





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