

NS Series Introduction

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The Parker NS Series of metering valves are designed to provide accurate and stable control of flow rates in analytical, instrumentation, and research applications. A variety of connection sizes, body patterns and materials of construction provide considerable application versatility. For higher flow rates, refer to the NM and NL Series of metering valves.

Features

- ▶ Precision tapered valve stem accurately controls flow
- ▶ Brass or 316 SS forged body construction
- ▶ Panel or in-line mounting
- ▶ Positive handle stop prevents overtightening
- ▶ Angle or in-line patterns
- ▶ Valve stem threads not in contact with process fluid
- ▶ 100% function tested
- ▶ Optional stem seals and handles

Specifications

Pressure Rating at all temperatures:

.....2000 psig (138 bar) CWP

Flow Data:

Orifice:.....0.03" (0.76mm)

In-line pattern: $C_v = 0.039$; $X_T = 0.64$

Angle pattern:..... $C_v = 0.042$; $X_T = 0.53$

Stem Taper: 1°

Turns to open: 13 +/- 1

Valve / Seal Temperature Ratings

Nitrile Rubber:

..... -10°F to 250°F (-23°C to 121°C)

Ethylene Propylene Rubber:

..... -40°F to 250°F (-40°C to 121°C)

Neoprene Rubber:

..... -40°F to 250°F (-40°C to 121°C)

Fluorocarbon Rubber:

..... -10°F to 400°F (-23°C to 204°C)

Highly Fluorinated Fluorocarbon Rubber:

..... -25°F to 200°F (-32°C to 93°C)

Note: These products are not intended for use as shut-off valves. For metering valves with shut-off capabilities, please refer to page 8 of this catalog.

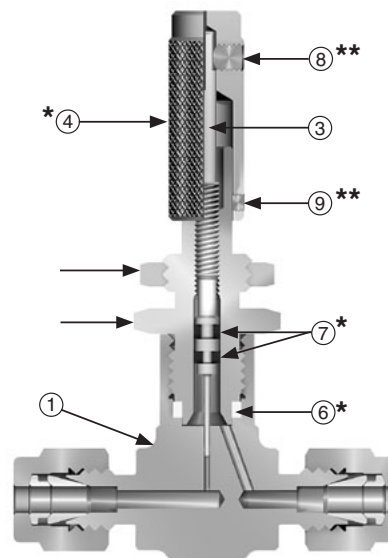
Item #	Description	Stainless Steel	Brass
1	Body	ASTM A 182 Type F316	ASTM B 283 Alloy C37700 (Nickel Plated)
2	Bonnet	ASTM A 479 Type 316	ASTM B 16 Alloy C36000 (Nickel Plated)
3	Stem	ASTM A 276 Type 316	ASTM A 276 Type 316
4	Handle*	ASTM A 582 Type 303	ASTM A 582 Type 303
5	Panel Nut	ASTM B 16 (Nickel Plated)	ASTM B 16 (Nickel Plated)
6	Sealing Ring*	Fluorocarbon Rubber	Fluorocarbon Rubber
7	Stem Seals*	Fluorocarbon Rubber	Fluorocarbon Rubber
8	Handle Set Screw**	Stainless Steel	Stainless Steel
9	Handle Lock Screw**	Stainless Steel	Stainless Steel

* Optional Handles, Sealing Ring and Stem Seal materials are available. See How to Order.

** K, KS, and F Handles use 18-8 stainless steel screws.

V Handles use alloy steel screws. Lock Screws are not used on F and V Handles.

Lubrication: Perfluorinated polyether.



Model Shown: 2A-NSL-NE-SS-K

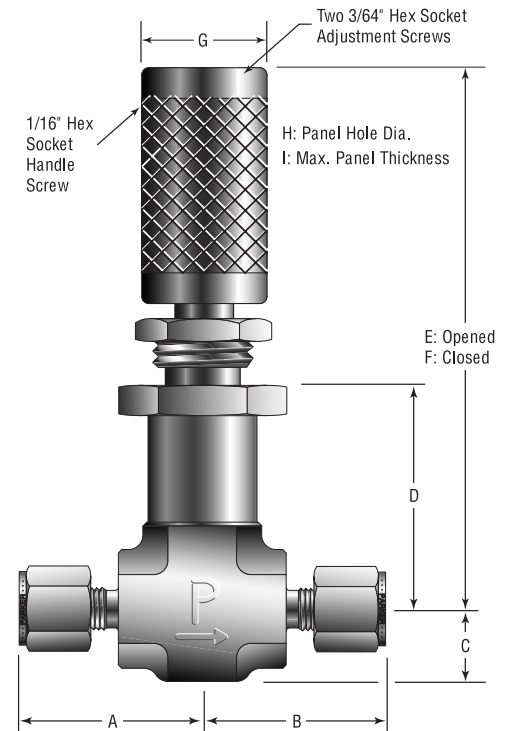
Flow tested in accordance with ISA S75.02. Gas flow will be choked when $P_1 - P_2 / P_1 = X_T$.

NS Series Dimensions

Basic Part Number	End Connections		Dimensions							
	(Inlet) Port 1	(Outlet) Port 2	A*		B*		C		D	
			inch	mm	inch	mm	inch	mm	inch	mm
1A-NSL	1/16" Compression A-LOK®		0.78	19.8	0.78	19.8	0.31	7.9	0.94	23.9
1A-NSA			0.82	20.8	0.82	20.8	0.31	7.9	0.94	23.9
1Z-NSL	1/16" Compression CPI™		0.78	19.8	0.78	19.8	0.31	7.9	0.94	23.9
1Z-NSA			0.82	20.8	0.82	20.8	0.31	7.9	0.94	23.9
2A-NSL	1/8" Compression A-LOK®		0.95	24.1	0.95	24.1	0.31	7.9	0.94	23.9
2A-NSA			1.01	25.7	1.01	25.7	0.31	7.9	0.94	23.9
2M-NSL	1/8" Male NPT		0.88	22.4	0.88	22.4	0.31	7.9	0.94	23.9
2M-NSA			0.88	22.4	0.88	22.4	0.31	7.9	0.94	23.9
2Z-NSL	1/8" Compression CPI™		0.95	24.1	0.95	24.1	0.31	7.9	0.94	23.9
2Z-NSA			1.01	25.7	1.01	25.7	0.31	7.9	0.94	23.9
4A-NSL	1/4" Compression A-LOK®		1.02	25.9	1.02	25.9	0.31	7.9	0.94	23.9
4A-NSA			1.02	25.9	1.02	25.9	0.31	7.9	0.94	23.9
4V-NSL	1/4" VacuSeal		1.03	26.2	1.03	26.2	0.53	13.5	0.94	23.9
4Z-NSL	1/4" Compression CPI™		1.02	25.9	1.02	25.9	0.31	7.9	0.94	23.9
4Z-NSA			1.02	25.9	1.02	25.9	0.31	7.9	0.94	23.9
M3A-NSL	3mm Compression A-LOK®		0.94	23.9	0.94	23.9	0.31	7.9	0.94	23.9
M3A-NSA			1.00	25.4	1.00	25.4	0.31	7.9	0.94	23.9
M3Z-NSL	3mm Compression CPI™		0.94	23.9	0.94	23.9	0.31	7.9	0.94	23.9
M3Z-NSA			1.00	25.4	1.00	25.4	0.31	7.9	0.94	23.9
M6A-NSL	6mm Compression A-LOK®		1.02	25.9	1.02	25.9	0.31	7.9	0.94	23.9
M6A-NSA			1.02	25.9	1.02	25.9	0.31	7.9	0.94	23.9
M6Z-NSL	6mm Compression CPI™		1.02	25.9	1.02	25.9	0.31	7.9	0.94	23.9
M6Z-NSA			1.02	25.9	1.02	25.9	0.31	7.9	0.94	23.9

* For CPI™ and A-LOK®, dimensions are measured with nuts in the finger tight position.

Dimensions in inches/millimeters are for reference only, subject to change.



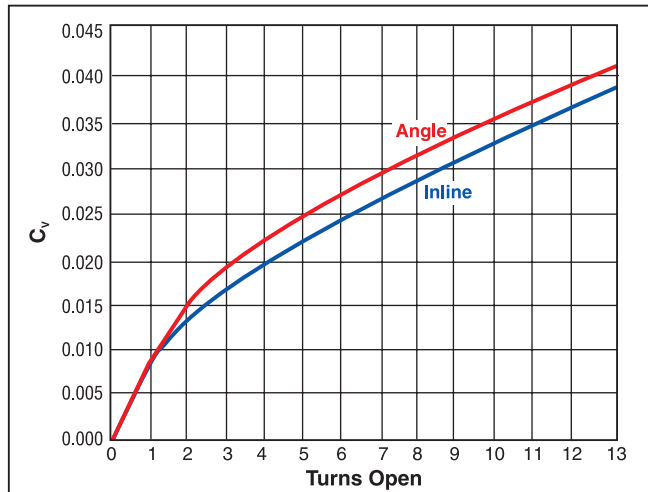
Model Shown: 2A-NSL-BN-SS-F

Handle Dimensions

	K & KS		V		F	
	inch	mm	inch	mm	inch	mm
E	2.50	63.5	2.97	75.4	2.97	75.4
F	2.27	57.7	2.74	69.6	2.74	69.6
G	0.37	9.4	0.84	21.3	0.37	9.4
H	0.46	11.7	0.46	11.7	0.46	11.7
I	0.16	4.1	0.16	4.1	0.16	4.1

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NS Series – C_v vs. Turns Open



NS Series – Water Flow Data

