

# Compact Needle Valve

NV5 Series



- ❖ Maximum working pressure up to 6000 psig (413 bar)
- ❖ Working temperature from -65°F to 600°F (-53°C to 315°C)
- ❖ Straight and angle patterns
- ❖ Softseat stem with PCTFE tip available

## Features

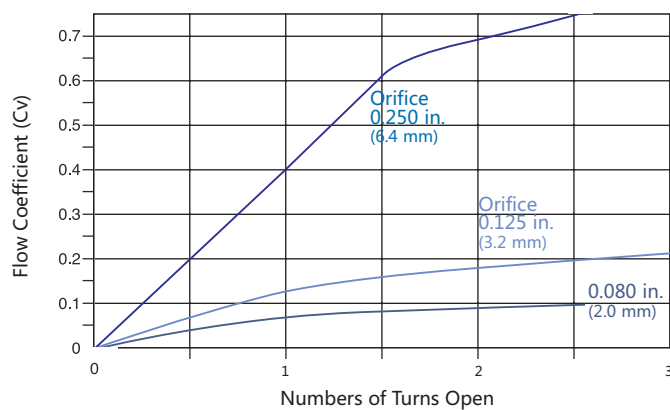
- ❖ Maximum working pressure up to 6000 psig (413 bar)
- ❖ Working temperature from -65°F to 600°F (-53°C to 315°C)
- ❖ Compact size design
- ❖ Packing nut enables easy external adjustments
- ❖ Straight and angle patterns
- ❖ Softseat stem with PCTFE tip available
- ❖ Optional handle colors available

## Pressure vs. Temperature

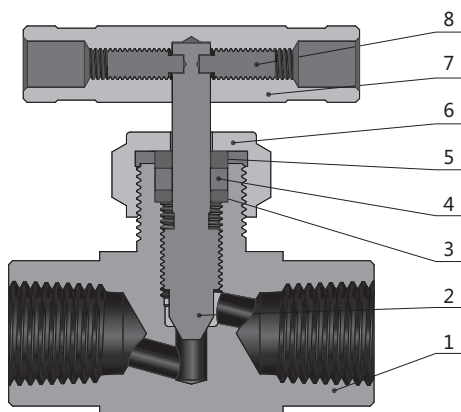
Body Material	316 Stainless steel
Temperature, °F (°C)	Working Pressure, psig (bar)
-65(-53) to 100(37)	6000 (413)
200 (93)	5160 (355)
300 (148)	4660 (321)
400 (204)	4280 (294)
500 (260)	3980 (274)
600 (315)	3760 (259)

## Flow Data at 100°F (38°C)

Regulating Stem

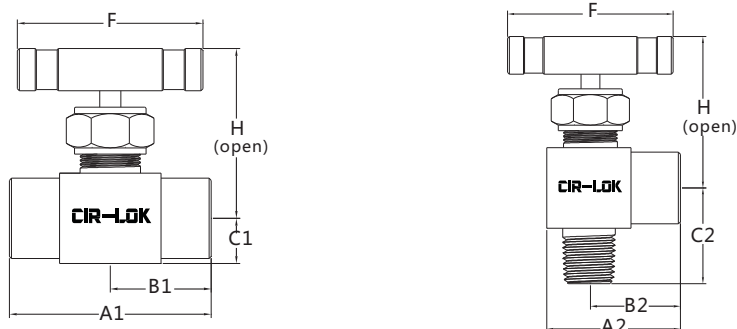


## Standard Materials of Construction



Item	Component	Valve Body Material
		316 S.S.
1	Body	316 S.S./A479
2	Stem	Chrome-plated 316 S.S./A276
3	Gland	316 S.S./A240
4	Packing	PFA/D3307
5	Gland	316 S.S./A240
6	Nut	316 S.S./A276
7	Handle	Anodized aluminum or stainless steel
8	Screw	304 S.S.

## Dimensions



Basic Ordering Number	Connection Type and Size	Orifice in. (mm)	Cv	Dimension, in. (mm)								
				A1	A2	B1	B2	C1	C2	F	H	
NV5 with soft-seat stem or PCTFE seat tip												
NV5-FNPT4-02-	1/4 Female Female NPT	0.08 (2.0)	0.09	1.88 (47.8)	—	0.94 (23.9)	—	0.42 (10.7)	—	1.75 (44.4)	1.66 (42.2)	
NV5-NPT4-02-	1/4 Male Male NPT			1.94 (49.3)	—	0.97 (24.6)	—					
NV5-NPT4-FNPT4-02-	1/4 Male to Female NPT			1.91 (48.5)	1.44 (36.6)	0.94 (23.9)	1.00 (25.4)		1.03 (26.2)			
NV5 with vee stem												
NV5-F4-03-	1/4" CIR-LOK	0.125 (3.2)	0.21	2.46 (62.5)	1.57 (39.9)	1.23 (31.2)	1.13 (28.7)	0.42 (10.7)	1.16 (29.5)	1.75 (44.4)	1.66 (42.2)	
NV5-F6-06-	3/8" CIR-LOK	0.25 (6.4)	0.73	3.08 (78.2)	—	1.54 (39.1)	—	0.66 (16.8)	—	2.50 (63.5)	2.31 (58.7)	
NV5-F8-06-	1/2" CIR-LOK			3.30 (83.8)	—	1.65 (41.9)	—					
NV5-FNPT4-03-	1/4 Female NPT	0.125 (3.2)	0.21	1.88 (47.8)	1.44 (36.6)	0.94 (23.9)	1.00 (25.4)	0.42 (10.7)	1.00 (25.4)	1.75 (44.4)	1.66 (42.2)	
NV5-FNPT6-06-	3/8 Female NPT	0.25 (6.4)	0.73	2.50 (63.5)	—	1.25 (31.8)	—	0.66 (16.8)	—	2.50 (63.5)	2.31 (58.7)	
NV5-FNPT8-06-	1/2 Female NPT			2.06 (52.3)	1.41 (35.8)	1.41 (35.8)						
NV5-NPT4-03-	1/4 Male NPT	0.125 (3.2)	0.21	1.94 (49.3)	—	0.97 (24.6)	—	0.42 (10.7)	—	1.75 (44.4)	1.66 (42.2)	
NV5-NPT4-F4-03-	1/4 Male NPT to 1/4" CIR-LOK			—	1.57 (39.9)	—	1.13 (28.7)		—			1.00 (25.4)
NV5-NPT4-FNPT4-03-	1/4 Male to Female NPT			1.91 (48.5)	1.44 (36.6)	0.94 (23.9)	1.00 (25.4)		0.42 (10.7)			1.03 (26.2)
NV5-NPT6-FNPT6-06-	3/8 Male to Female NPT	0.25 (6.4)	0.73	2.50 (63.5)	2.06 (52.3)	1.25 (31.8)	1.41 (35.8)	0.66 (16.8)	1.22 (31.0)	2.50 (63.5)	2.31 (58.7)	
NV5-NPT8-FNPT8-06-	1/2 Male to Female NPT			2.55 (64.8)					1.41 (35.8)			
NV5-NPT12-FNPT8-06-	3/4 Male to 1/2 Female NPT			2.50 (63.5)	—				—			—
NV5-FBT4-03-	1/4 Female BSPT	0.125 (3.2)	0.21	1.88 (47.8)	—	0.94 (23.9)	—	0.42 (10.7)	—	1.75 (44.4)	1.66 (42.2)	
NV5-FBT8-06-	1/2 Female BSPT	0.25 (6.4)	0.73	2.50 (63.5)	—	1.25 (31.8)	—	0.66 (16.8)	—	2.50 (63.5)	2.31 (58.7)	

## How to Order

NV5 — FNP4 — FNPT4 — 03R — LA — 316

Series	Inlet Type	Inlet Size	Outlet Type	Outlet Size	Orifice Size	Tip Type	Handle	Flow Pattern	Body Material		
NV5	<b>FNPT</b> Female NPT	2 1/8 in.	Same as inlet type and inlet size		<b>02</b> 0.08 in. (2.0 mm)	Blunt	Black Aluminum Bar	Straight	<b>316</b> 316 S.S.		
	<b>NPT</b> Male NPT	4 1/4 in.							<b>R</b> Regulating	<b>A</b> Angle	<b>316L</b> 316L S.S.
	<b>FBT</b> Female BSPT	6 3/8 in. or 6 mm							If outlet and inlet are the same, eliminate the outlet designator	<b>T</b> PTFE	<b>R</b> Red Aluminum Bar
	<b>MBT</b> Male BSPT	8 1/2 in. or 8 mm	<b>K</b> PCTFE	<b>G</b> Green Aluminum Bar	<b>304L</b> 304L S.S.						
	<b>FMS</b> Female ISO	10 10 mm	<b>P</b> PEEK	<b>L</b> Blue Aluminum Bar							
	<b>MS</b> Male ISO	12 3/4 in. or 12 mm		<b>S</b> 304 Stainless Steel Bar							
	<b>FBP</b> Female BSPP	14 14 mm or M14 x 1.5									
	<b>MBP</b> Male BSPP										
	<b>F</b> Fractional Tube Fitting										
<b>M</b> Metric Tube Fitting											