

Needle Valve
 Series N / 9N

Characteristics / Ordering Code

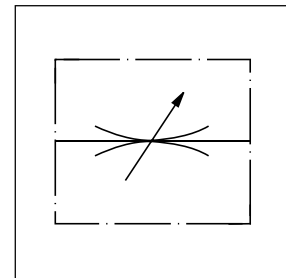
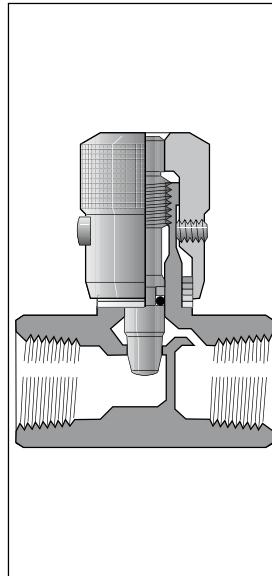
Manatrol stop and throttle valves with 2-stage needle cone. Fine adjustment for the first stage can be achieved with 3 rotations of the adjustment knob. The second stage with normal throttle characteristics is achieved with 3 further rotations. A cylindrical needle with a rectangular slot is provided to reduce the viscosity effect for sizes 200 up to 600. The flow is dependent on pressure and viscosity.

$$\text{Flow rate } Q \text{ [l/min]} = K_v \cdot \sqrt{\frac{\Delta p}{\gamma}}$$

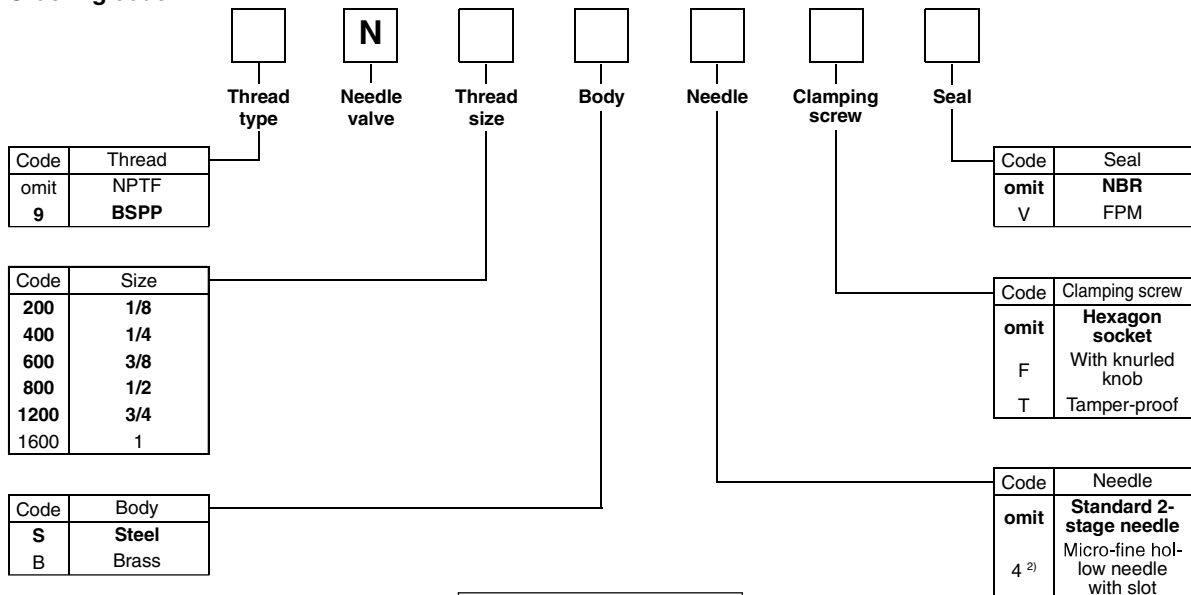
K_v from the table
 Δp [bar]
 γ [kg/dm³] = specific weight of the medium
 (γ for mineral oil = 0.85 - 0.9)

Specifications

Return check poppet	0.4 bar
Nominal cracking pressure	
Operating temperature	-40°C to +121°C

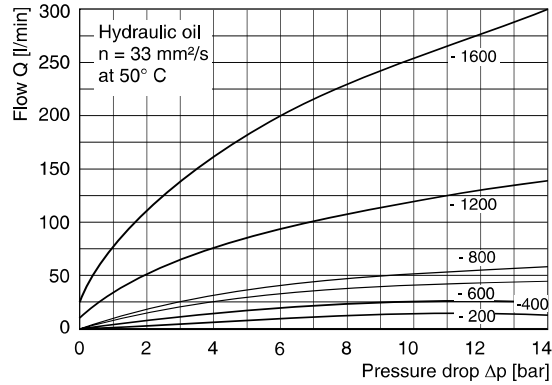
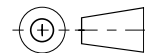
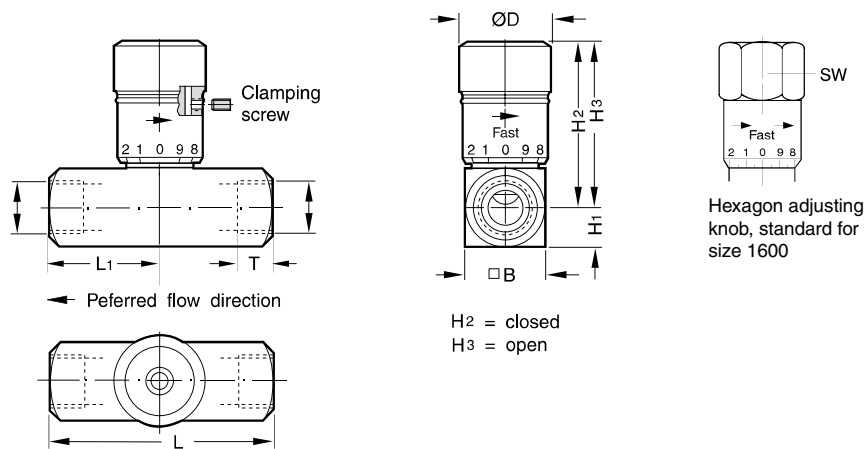

Technical data (only for standard 2 stage needle)

Size	Steel	Brass	Flow [l/min]	Max. cross section	Kv factor valve	Weight [kg]
200	350	140	11	0.066	3.3	0.15
400	350	140	25	0.13	6.3	0.22
600	350	140	40	0.22	11.2	0.6
800	350	140	50	0.28	13.9	0.63
1200	350	140	120	0.70	35.4	1.04
1600	210	35	250	1.48	75	2.13

Ordering code

Bold letters = Short-term availability
²⁾ only for sizes 200 to 600

N-9N_UK.INDD RH_26.11.07


 Parker Hannifin GmbH & Co. KG
 Hydraulic Controls Division
 Kaarst, Germany

Characteristic Curves / Dimensions
**Needle Valve
Series N / 9N**
p/Q curves

Dimensions


Size	R* Threads	H3	H2	H1	B	L1	L	ØD	SW
200	1/8	39	35	8	16	16	38	19	-
400	1/4	46	40	10.5	21	25	51	21	-
600	3/8	55	49	13	26	32	64	25	-
800	1/2	69	61	16	32	33	67	30	-
1200	3/4	86	71	19	38	41	83	35	-
1600	1	124	107	22.5	45	54	108	-	47.8

* G or NPTF

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