

CONRADER

Micro Valves Model: 38-Series



Max Operating Pressure: 250 psig standard, higher pressures available upon request

Service Type: Pressurized or Vacuum

Operating Temperature Range: -20° to 250°F

Available Orifice Diameters: 1/16", 1/8", 3/16"

Available Flow Capacities: See Chart Below

Connections: 3/8" Female NPT

Materials of Construction:

Body: Anodized Aluminum or Stainless Steel

Valve Internals: Stainless Steel

Seal: Nitrile, Viton (Other materials available upon request)

Spring: 302 Stainless Steel

Operator Specifications

Operator	Straight Handle	Plastic Ball Tip	Roller Lever	Over-Ride Spring	Extended Straight Handle
38 Series 3-Way, 2-Position Orifice Diameters 1/8" (Standard) 1/16" or 3/16" Connection 3/8" NPT					

Pressure and Force Specifications

Orifice Size	Operator	Max. Working Pressure	Operating Force
1/8" (Standard)	Straight Handle, Manual Return	100	3.5 lbs
1/16" (Special)	Straight Handle, Manual Return	250	3.5 lbs
3/16" (Special)	Straight Handle, Manual Return	75	4 lbs
1/8" (Standard)	Straight Handle, Spring Return	100	4 lbs
1/8" (Standard)	Lever Operator Spring Return	100	4.5 lbs

*Valve can be supplied with different orifice sizes for specific pressure and flow requirements.

Flow Capacity

Gas Operating Range

38 Series Micro Valve			
Pressure Differential (psig)	Flow Capacity (SCFH*)		
	1/8" Orifice	1/16" Orifice	3/16" Orifice
1	98.4	23.6	222.5
2	138.3	33.1	296
3	168.4	40.6	362.1
4	194.6	46.7	415.5
5	217	52	464.3
6	237.2	57.1	509.1
7	255.8	61.3	547.6
8	272.7	65.2	580.1
9	289.7	69.1	613
10	304	75	686.3
20	439	110	948.3
30	622	143	1275.4
40	789	170	1473.3
50	915	197	1765.6
60	1042	235	2041.8
70	1182	270	2347.8
80	1345	305	2535.1
90	1487	337.2	
100	1629.1	369.4	
110		401.6	
120		433.8	
130		466	
140		498.2	
150		530.4	
160		562.7	
170		594.9	
180		627.1	
190		659.3	
200		691.5	
210		723.7	
220		755.9	
230		788.1	
240		820.3	
250		852.5	

Liquid Operating Range

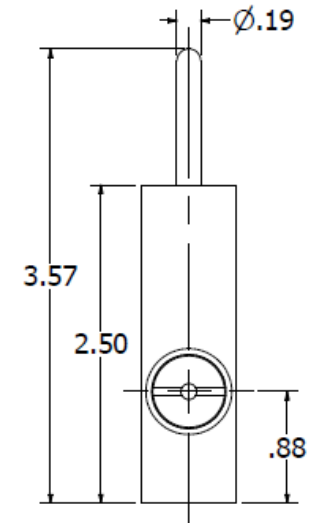
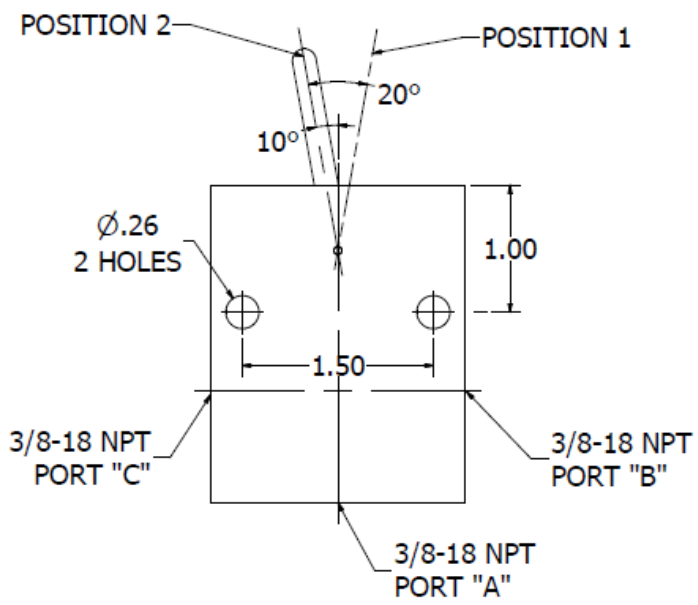
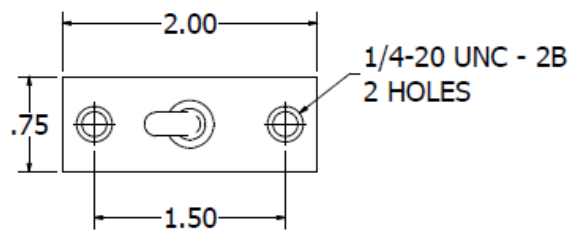
38 Series Micro Valve			
Pressure Differential (psig)	Flow Capacity (gpm)		
	1/8" Orifice	1/16" Orifice	3/16" Orifice
1	0.37	0.09	0.73
2	0.52	0.12	1.03
3	0.64	0.15	1.26
4	0.74	0.18	1.46
5	0.83	0.2	1.63
6	0.91	0.22	1.79
7	0.98	0.23	1.93
8	1.05	0.25	2.06
9	1.11	0.26	2.19
10	1.17	0.28	2.31
20	1.65	0.39	3.26
30	2.03	0.48	4
40	2.34	0.56	4.62
50	2.62	0.62	5.16
60	2.87	0.68	5.65
70	3.1	0.74	6.11
80	3.31	0.79	6.53
90	3.51	0.88	
100	3.7	0.88	
110		0.92	
120		0.96	
130		1	
140		1.04	
150		1.08	
160		1.11	
170		1.15	
180		1.18	
190		1.21	
200		1.24	
210		1.28	
220		1.31	
230		1.33	
240		1.36	
250		1.39	



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Ordering Information

Valve Size		Valve Type		Construction Material		Orifice Diameter		Seal Material		Options	
Option	Code	Option	Code	Option	Code	Option	Code	Option	Code	Option	Code
3/8"	38	Standard	S	Aluminium	(Blank)	1/16"	063	Nitrile (Buna-N)	N	Long Extension Spring	ES1
		Vacuum (Viton®)	V	Stainless Steel	SS	1/8"	125	Viton®	V	Short Extension Spring	ES2
				Brass	B	3/16"	188			Spring Return Lever	SR
										Roller Lever	RL
										Ball Lever	BL
										Short Lever	SL
										Long Lever	LL



- NOTES:
- * TEST PRESSURE: 100 psig
 - * MAX OPERATING TEMPERATURE: 250°F
 - * ORIFICE DIAMETER: ϕ .125.
 - * TOGGLE POSITION 1: PORT "A" OPEN TO PORT "C". PORT "B" CLOSED.
 - * TOGGLE POSITION 2: PORT "A" OPEN TO PORT "B". PORT "C" CLOSED.
 - * VALVE WEIGHT: 0.33 lbmass

CONRADER VALVES
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DESCRIPTION	DIMENSIONAL OUTLINE		
VALVE MODEL	MV38S-125-N (38F1)		
MATERIAL			

ISSUED BY	NRP	ISSUED	10/16/2018
REVISED BY	NRP	REVISED	6/12/2019
SCALE	3:4	DRAWING NO.	2262

GROUP	MV	REVISION	B
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