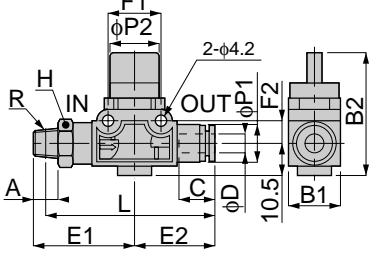




Straight B



unit:mm

Model	Tube dia. φD	R	A	B1	B2	L	φP1	φP2	C	E1	E2	H	F1	F2	Mass (g)	Orifice (φmm)	Eff. a. (mm ²)
HV 01-6-□-□	6	R1/8	8			55.5				33.5					33		8.3
HV 02-6-□-□		R1/4	11	17	40.5	56.5	12.5	16.5	17	36.5	26	14	18	8	39.5	5	8.5
HV 03-6-□-□		R3/8	12				58				38.5		17			52	
HV 01-8-□-□	8	R1/8	8			57.5				33.5					34.5		8.9
HV 02-8-□-□		R1/4	11	17	40.5	58.5	15	16.5	18	36.5	28	14	18	8	40.5	5	8.9
HV 03-8-□-□		R3/8	12				60				38.5		17			53.5	
HV 02-10-□-□	10	R1/4	11			69				42.5					61.5		16.6
HV 03-10-□-□		R3/8	12	21	41	69.5	17.5	19.5	20	43.5	32.5	17	24	11	70	7	16.9
HV 04-10-□-□		R1/2	15				71				46.5		21			91.5	
HV 02-12-□-□	12	R1/4	11			71.5				42.5					65		17
HV 03-12-□-□		R3/8	12	21	41	72	21	19.5	23.5	43.5	35	17	24	11	73	7	17.1
HV 04-12-□-□		R1/2	15				73.5				46.5		21			95	
HV 01-1/4-□-□	1/4	R1/8	8			55.5				33.5					33		8.7
HV 02-1/4-□-□		R1/4	11	17	40.5	56.5	12.5	16.5	17	36.5	26	14	18	8	39.5	5	8.4
HV 03-1/4-□-□		R3/8	12				58				38.5		17			52	
HV 01-5/16-□-□	5/16	R1/8	8			57.5				33.5					34.5		8.9
HV 02-5/16-□-□		R1/4	11	17	40.5	58.5	15	16.5	18	36.5	28	14	18	8	40.5	5	8.9
HV 03-5/16-□-□		R3/8	12				60				38.5		17			53.5	
HV 02-3/8-□-□	3/8	R1/4	11			69				42.5					61.5		16.5
HV 03-3/8-□-□		R3/8	12	21	41	69.5	17.5	19.5	20	43.5	32.5	17	24	11	70	7	16.8
HV 04-3/8-□-□		R1/2	15				71				46.5		21			91.5	

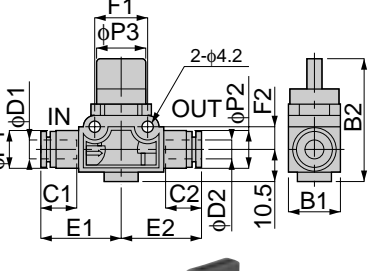


unit:inch

MODEL	Tube dia. φ	NPT	A	B	C	E1	E2	F1	F2	W	H	Weight (g)	Orifice φmm	Eff. A. mm ²	Cv
HVN1-3/16U	3/16	1/8	0.31	1.59	0.67	1.02	1.16	0.71	0.31	0.67	9/16	34.0	4.0	5.6	0.30
HVN2-3/16U	3/16	1/4	0.43	1.59	0.67	1.02	1.2	0.71	0.31	0.67	9/16	39.8	4.0	6.0	0.32
HVN3-3/16U	3/16	3/8	0.47	1.59	0.67	1.02	1.26	0.71	0.31	0.67	11/16	53.5	4.0	5.7	0.30
HVN1-1/4U	1/4	1/8	0.31	1.59	0.67	1.02	1.16	0.71	0.31	0.67	9/16	33.8	5.0	8.3	0.44
HVN2-1/4U	1/4	1/4	0.43	1.59	0.67	1.02	1.20	0.71	0.31	0.67	9/16	39.5	5.0	8.5	0.46
HVN3-1/4U	1/4	3/8	0.47	1.59	0.67	1.02	1.26	0.71	0.31	0.67	11/16	53.5	5.0	8.2	0.44
HVN1-5/16U	5/16	1/8	0.31	1.59	0.71	1.10	1.16	0.71	0.31	0.83	9/16	35.1	5.0	8.9	0.48
HVN2-5/16U	5/16	1/4	0.43	1.59	0.71	1.10	1.20	0.71	0.31	0.83	9/16	40.9	5.0	8.9	0.48
HVN3-5/16U	5/16	3/8	0.47	1.59	0.71	1.10	1.26	0.71	0.31	0.83	11/16	54.6	5.0	8.9	0.48
HVN2-3/8U	3/8	1/4	0.43	1.61	0.79	1.28	1.44	0.94	0.43	0.83	11/16	63.1	7.0	16.6	0.89
HVN3-3/8U	3/8	3/8	0.47	1.61	0.79	1.28	1.46	0.94	0.43	0.83	11/16	71.3	7.0	16.9	0.91
HVN4-3/8U	3/8	1/2	0.59	1.61	0.79	1.28	1.48	0.94	0.43	0.83	7/8	94.4	7.0	16.5	0.89
HVN2-1/2U	1/2	1/4	0.43	1.61	0.93	1.38	1.44	0.94	0.43	0.83	11/16	65.8	7.0	17.0	0.92
HVN3-1/2U	1/2	3/8	0.47	1.61	0.93	1.38	1.46	0.94	0.43	0.83	11/16	74.3	7.0	17.1	0.92
HVN4-1/2U	1/2	1/2	0.59	1.61	0.93	1.38	1.52	0.94	0.43	0.83	7/8	97.1	7.0	16.8	0.91



Union Straight

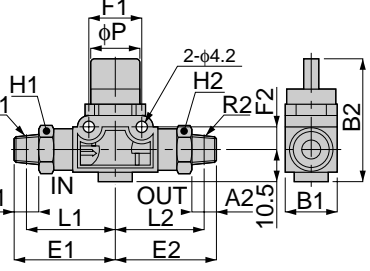


unit:mm

Model	Tube dia. φD1	Tube dia. φD2	B1	B2	φP1	φP2	φP3	C1	C2	E1	E2	F1	F2	Mass (g)	Orifice (φmm)	Eff. a. (mm ²)
HV 4-4-□-□	4	4	17	40.5	10	10	16.5	15	15	26	26	18	8	23.5	5	3.4
HV 6-6-□-□	6	6	17	40.5	12.5	12.5	16.5	17	17	26	26	18	8	24.5	5	7.2
HV 8-6-□-□	8	6	17	40.5	15	12.5	16.5	18	18	28	28	18	8	25.5	5	8.1
HV 8-8-□-□		8														8.7
HV 10-10-□-□	10	10	21	41	17.5	17.5	19.5	20	20	32.5	32.5	24	11	44	7	17.4
HV 12-10-□-□	12	10	21	41	21	17.5	19.5	23.5	20	35.5	32.5	24	11	47.5	7	17.5
HV 12-12-□-□		12														18.1
HV 1/4-1/4-□-□	1/4	1/4	17	40.5	12.5	12.5	16.5	17	17	26	26	18	8	24.5	5	8.1
HV 5/16-1/4-□-□	5/16	1/4	17	40.5	15	12.5	16.5	18	17	28	26	18	8	25.5	5	8.8
HV 5/16-5/16-□-□		5/16														8.7
HV 3/8-3/8-□-□		3/8														3/8



Nipple Type



unit:mm

Model	R1	R2	A1	A2	B1	B2	L1	L2	φP	E1	E2	H1	H2	F1	F2	Mass (g)	Orifice (φmm)	Eff. a. (mm ²)
HV 01-01-□-□	R1/8	R1/8	8	8	17	40.5	29.5	29.5	16.5	33.5	33.5	14	14	18	8	42	5	8.8
HV 02-01-□-□	R1/4	R1/8	8	17	40.5	30.5	29.5	16.5	36.5	33.5	14	14	18	8	48.5	5	9	
HV 02-02-□-□		R1/4	11	21	41	36.5	36.5	19.5	42.5	42.5	17	17	24	11	79.5	7	15.8	
HV 03-02-□-□	R3/8	R1/4	11	21	41	37	36.5	19.5	43.5	42.5	17	17	24	11	86.5	7	15.6	
HV 03-03-□-□		R3/8																12



unit:inch

MODEL	NPT1	NPT2	A1	A2	B	L1	L2	E1	E2	F1	F2	H1	H2	W	Weight (g)	Orifice φmm	Eff. A. mm ²	Cv
HVN1-N1U	1/8	1/8	0.31	0.31	1.59	1.16	1.16	1.32	1.32	0.71	0.30	9/16	9/16	0.67	43.0	5.0	8.8	0.47
HVN2-N1U	1/4	1/8	0.43	0.31	1.59	1.16	1.16	1.44	1.32	0.71	0.30	9/16	9/16	0.67	48.9	5.0	9.0	0.48
HVN2-N2U	1/4	1/4	0.43	0.43	1.61	1.42	1.42	1.67	1.67	0.94	0.43	11/16	11/16	0.83	81.1	5.0	15.8	0.85
HVN3-N2U	3/8	1/4	0.47	0.43	1.61	1.42	1.42	1.71	1.67	0.94	0.43	11/16	11/16	0.83	89.5	5.0	15.6	0.84
HVN3-N3U	3/8	3/8	0.47	0.47	1.61	1.46	1.46	1.71	1.71	0.94	0.43	11/16	11/16	0.83	97.7	7.0	15.7	0.85