



## Nominal molbloc-S nitrogen (N2) flow rate at various upstream pressures

Designator	K <sub>v</sub> [sccm/kPa]	molbloc-S mass flow rate (slm @ 0 °C) when molbloc-S upstream pressure is: <sup>1,2</sup>								
		20 kPa (3 psia)	50 kPa (7 psia)	100 kPa (15 psia)	Minimum without vacuum <sup>3</sup>	200 kPa (30 psia)	500 kPa (70 psia)	800 kPa (116 psia) (typ. compressor)	1.2 MPa (174 psia)	2 MPa (290 psia)
1E1-S	10	0.2	0.5	1	1.8	2	5	8	12	20
2E1-S	20	0.4	1	2	3.2	4	10	16	24	40
5E1-S	50	1	2.5	5	7.7	10	25	40	60	100
1E2-S	100	2	5	10	15	20	50	80	120	200
2E2-S	200	4	10	20	28	40	100	160	240	400
5E2-S	500	10	25	50	67	100	250	400	600	1000
1E3-S	1000	20	50	100	129	200	500	800	1200	2000
2E3-S	2000	40	100	200	248	400	1000	1600	2400	4000
5E3-S	5000	100	250	500	596	1000	2500	4000	6000	10000
1E4-S	10000	200	500	1000	1173	2000	5000	8000	12000	20000

<sup>1</sup> Flow values in table are valid only when critical flow is established

<sup>2</sup> When volumetrically based mass flow units with reference temperatures other than 0 °C are used, flow values will generally be higher; the flow values for a given molbloc and upstream pressure are approximately 7% higher when expressed in slm at 20 °C. Flow values at a given pressure may vary by up to ±2% due to flowpath machining tolerances.

<sup>3</sup> Minimum upstream pressure to achieve critical flow with atmospheric pressure (approximately 100 kPa) downstream of molbloc-S (no vacuum).

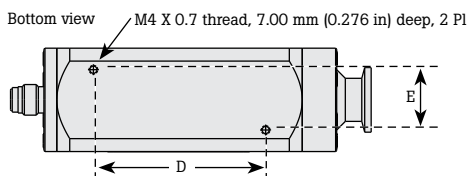
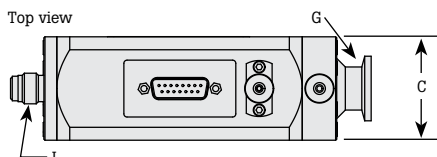
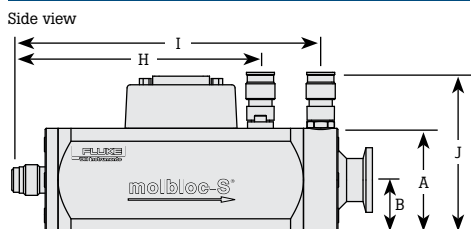
## molbloc-S dimensions

	1E1-S	2E1-S	5E1-S	1E2-S	2E2-S	5E2-S	1E3-S	2E3-S	5E3-S	1E4-S
<b>A</b>	48.0 mm (1.89 in) sq	48.0 (1.89 in) sq	48.0 (1.89 in) sq	48.0 mm (1.89 in) sq	48.0 mm (1.89 in) sq	48.0 mm (1.89 in) sq	48.0 mm (1.89 in) sq	48.0 mm (1.89 in) sq	80.0 mm (3.15 in) sq	80.0 mm (3.15 in) sq
<b>B</b>	24.0 mm (0.94 in)	24.0 mm (0.94 in)	24.0 mm (0.94 in)	24.0 mm (0.94 in)	24.0 mm (0.94 in)	24.0 mm (0.94 in)	24.0 mm (0.94 in)	24.0 mm (0.94 in)	40.0 mm (1.57 in)	40.0 mm (1.57 in)
<b>C</b>	48.0 mm (1.89 in) sq	48.0 mm (1.89 in) sq	48.0 mm (1.89 in) sq	48.0 mm (1.89 in) sq	48.0 mm (1.89 in) sq	48.0 mm (1.89 in) sq	48.0 mm (1.89 in) sq	48.0 mm (1.89 in) sq	80.0 mm (3.15 in) sq	80.0 mm (3.15 in) sq
<b>D</b>	80.0 mm (3.15 in)	80.0 mm (3.15 in)	80.0 mm (3.15 in)	80.0 mm (3.15 in)	80.0 mm (3.15 in)	80.0 mm (3.15 in)	80.0 mm (3.15 in)	80.0 mm (3.15 in)	176.0 mm (6.93 in)	176.0 mm (6.93 in)
<b>E</b>	28.0 mm (1.10 in)	28.0 mm (1.10 in)	28.0 mm (1.10 in)	28.0 mm (1.10 in)	28.0 mm (1.10 in)	28.0 mm (1.10 in)	28.0 mm (1.10 in)	28.0 mm (1.10 in)	44.0 mm (1.73 in)	44.0 mm (1.73 in)
<b>F</b>	167.5 mm (6.59 in)	167.5 mm (6.59 in)	167.5 mm (6.59 in)	167.5 mm (6.59 in)	171.0 mm (6.73 in)	171.0 mm (6.73 in)	171.0 mm (6.73 in)	175.0 mm (6.89 in) <sup>1</sup>	299.7 mm (11.80 in) <sup>1</sup>	331.0 mm (13.03 in) <sup>1</sup>
<b>G</b>	KF16 flange	KF16 flange	KF16 flange	KF16 flange	KF16 flange	KF16 flange	KF16 flange	KF16 flange	KF40 flange	KF40 flange
<b>H</b>	100.0 mm (3.94 in)	100.0 mm (3.94 in)	100.0 mm (3.94 in)	100.0 mm (3.94 in)	84.0 mm (3.31 in)	84.0 mm (3.31 in)	84.0 mm (3.31 in)	84.0 mm (3.31 in)	154.0 mm (6.06 in)	154.0 mm (6.06 in)
<b>I</b>	128.0 mm (5.04 in)	128.0 mm (5.04 in)	128.0 mm (5.04 in)	128.0 mm (5.04 in)	128.0 mm (5.35 in)	128.0 mm (5.35 in)	128.0 mm (5.35 in)	128.0 mm (5.35 in)	236.0 mm (9.29 in)	236.0 mm (9.29 in)
<b>J</b>	73.0 mm (2.87 in)	73.0 mm (2.87 in)	73.0 mm (2.87 in)	73.0 mm (2.87 in)	73.0 mm (2.87 in)	73.0 mm (2.87 in)	73.0 mm (2.87 in)	73.0 mm (2.87 in)	106.0 mm (4.17 in)	106.0 mm (4.17 in)
<b>K</b>	167.5 mm (6.59 in)	167.5 mm (6.59 in)	167.5 mm (6.59 in)	167.5 mm (6.59 in)	171.0 mm (6.73 in)	171.0 mm (6.73 in)	171.0 mm (6.73 in)	171.0 mm (6.73 in)	290.0 mm (11.42 in)	290.0 mm (11.42 in)
<b>L</b>	¼ in VCR Male <sup>2</sup>	¼ in VCR Male <sup>2</sup>	¼ in VCR Male <sup>2</sup>	¼ in VCR Male <sup>2</sup>	½ in VCR M <sup>2</sup>	½ in VCR M <sup>2</sup>	½ in VCR M <sup>2</sup>	½ in VCR M <sup>2</sup>	½ in VCR M <sup>2</sup>	KF25 flange

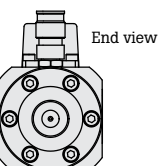
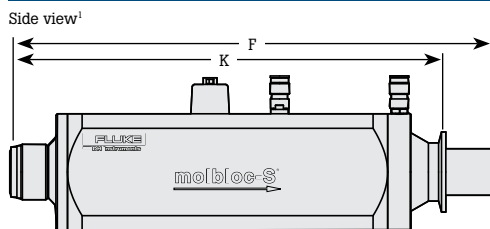
<sup>1</sup> On some molbloc-S elements, the venturi nozzle extends beyond the molbloc downstream flange, making the overall length dimension, F, longer than the fitting-to-fitting length dimension, K. A 40 mm diameter ISO-KF nipple is supplied with 5E3-S and 1E4-S molblocs because for these molbloc sizes the nozzle overhang may interfere with downstream connections or connection of a blank off cap for leak testing.

<sup>2</sup> Default connector type is listed. Additional upstream connector options may be available. Contact your DHI Sales Representative for details.

### All Except 5E3-S and 1E4-S



### 5E3-S and 1E4-S



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