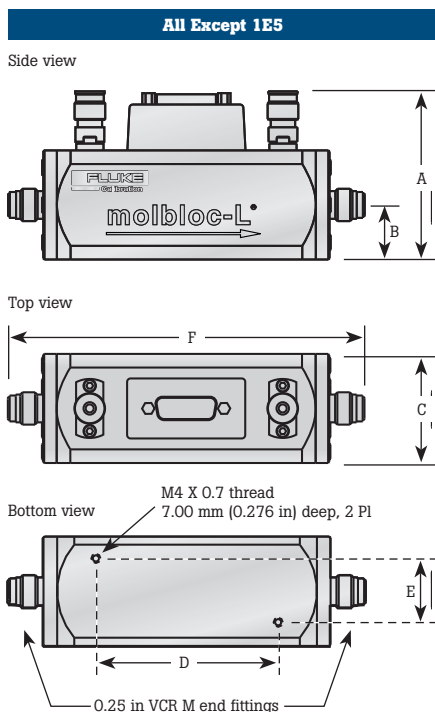


### molbloc-L ranges with low pressure and downstream calibrations

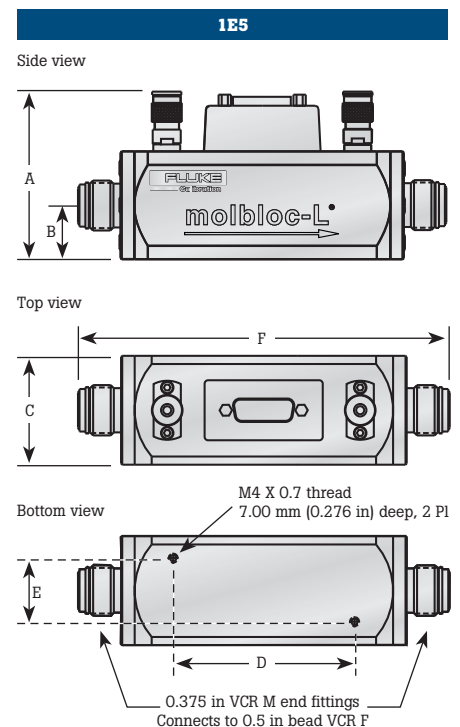
		molbloc size and full scale flow (sccm @ 0 °C)										
		Size										
Gases		1E1	5E1	1E2	2E2	5E2	1E3	5E3	1E4	3E4	1E5	
Inert	Nitrogen	N <sub>2</sub>	10	50	100	200	500	1 000	5 000	10 000	30 000	100 000
	Argon	Ar	10	50	100	200	500	1 000	5 000	10 000	30 000	80 000
	Helium	He	10	50	100	200	500	1 000	5 000	10 000	30 000	100 000
	Sulfur hexafluoride	SF <sub>6</sub>	10	50	100	200	500	1 000	<b>2 000</b> <b>500</b>	<b>6 000</b> <b>1 000</b>	<b>6 000</b> <b>4 000</b>	—
	Xenon	Xe	10	40	80	150	400	800	<b>3 500</b> <b>500</b>	8 000	<b>11 000</b> <b>3 000</b>	<b>30 000</b> <b>20 000</b>
Flammable	Butane	C <sub>4</sub> H <sub>10</sub>	20	100	<b>130</b> <b>30</b>	<b>270</b> <b>50</b>	<b>670</b> <b>140</b>	2 300	<b>2 200</b> <b>1 400</b>	<b>7 000</b> <b>3 000</b>	—	—
	Ethane	C <sub>2</sub> H <sub>6</sub>	20	100	200	400	1000	2 000	<b>6 000</b> <b>1 000</b>	<b>18 000</b> <b>2 000</b>	<b>18 000</b> <b>6 000</b>	<b>60 000</b> <b>50 000</b>
	Ethylene	C <sub>2</sub> H <sub>4</sub>	16	80	160	320	800	1 600	<b>7 000</b> <b>1 000</b>	16 000	<b>20 000</b> <b>5 000</b>	<b>70 000</b> <b>40 000</b>
	Hydrogen	H <sub>2</sub>	20	100	200	400	1000	2 000	10 000	20 000	60 000	200 000
	Methane	CH <sub>4</sub>	16	80	160	320	800	1 600	8 000	16 000	<b>40 000</b> <b>5 000</b>	<b>120 000</b> <b>40 000</b>
	Propane	C <sub>3</sub> H <sub>8</sub>	20	100	200	400	1000	2 000	<b>3 000</b> <b>1 000</b>	<b>10 000</b> <b>2 000</b>	<b>10 000</b> <b>7 000</b>	—
Fluoro-carbons	Carbon tetrafluoride	CF <sub>4</sub>	10	50	100	200	500	1 000	<b>4 000</b> <b>600</b>	10 000	<b>12 000</b> <b>3 000</b>	<b>36 000</b> <b>25 000</b>
	Hexafluoroethene	C <sub>2</sub> F <sub>6</sub>	10	50	100	200	500	1 000	<b>2000</b> <b>600</b>	<b>6000</b> <b>1200</b>	<b>6 000</b> <b>4 000</b>	—
	Trifluoromethane	CHF <sub>3</sub>	10	50	100	200	500	1 000	<b>4000</b> <b>600</b>	10000	<b>12 000</b> <b>4 000</b>	<b>38 000</b> <b>30 000</b>
Other	Air	Air	10	50	100	200	500	1 000	5000	10 000	30 000	100 000
	Carbon dioxide	CO <sub>2</sub>	10	50	100	200	500	1 000	5 000	10 000	<b>20 000</b> <b>4 000</b>	<b>60 000</b> <b>30 000</b>
	Carbon monoxide	CO	10	50	100	200	500	1 000	5 000	10 000	30 000	100 000
	Nitrous oxide	N <sub>2</sub> O	10	50	100	200	500	1 000	5 000	10 000	<b>20 000</b> <b>4 000</b>	<b>60 000</b> <b>30 000</b>
	Octafluorocyclobutane <sup>1</sup>	C <sub>4</sub> F <sub>8</sub>	15	<b>60</b> <b>9</b>	<b>65</b> <b>17</b>	<b>130</b> <b>34</b>	<b>330</b> <b>85</b>	<b>1 100</b> <b>175</b>	<b>1 050</b> <b>840</b>	<b>3 400</b> <b>1 700</b>	—	—
	Oxygen	O <sub>2</sub>	10	50	100	200	500	1 000	5 000	10 000	30 000	80 000

See page 2 for footnotes.

### molbloc-L dimensions



	5E3 and lower	1E4,3E4	1E5
<b>A</b>	58.50 mm (2.303 in)	74.50 mm (2.933 in)	74.50 mm (2.933 in)
<b>B</b>	16.00 mm (0.630 in)	24.00 mm (0.945 in)	24.00 mm (0.945 in)
<b>C</b>	32.00 mm (1.260 in) sq	48.00 mm (1.890 in) sq	48.00 mm (1.890 in) sq
<b>D</b>	68.84 mm (2.750 in)	80.00 mm (3.150 in)	80.00 mm (3.150 in)
<b>E</b>	19.06 mm (0.750 in)	28.00 mm (1.102 in)	28.00 mm (1.102 in)
<b>F</b>	124.00 mm (4.881 in)	157.00 mm (6.181 in)	164.00 mm (6.458 in)



End views

# molbloc-L ranges with high pressure calibrations

		molbloc size and full scale flow (sccm @ 0 °C)										
		Size										
Gases		1E1	5E1	1E2	2E2	5E2	1E3	5E3	1E4	3E4	1E5	
Inert	Nitrogen	N <sub>2</sub>	20	100	200	400	1000	2 000	10 000	20 000	<b>50 000</b> <b>7 500</b>	N/A
	Argon	Ar	20	100	200	400	1 000	2 000	10 000	17 000	<b>45 000</b> <b>6 000</b>	N/A
	Helium	He	20	100	200	400	1000	2 000	10 000	20 000	65 000	N/A
	Sulfur hexafluoride	SF <sub>6</sub>	25	<b>100</b> <b>15</b>	<b>120</b> <b>30</b>	<b>250</b> <b>50</b>	<b>600</b> <b>150</b>	<b>2 000</b> <b>300</b>	<b>2 000</b> <b>1 400</b>	<b>6 200</b> <b>2 800</b>	—	N/A N/A
	Xenon	Xe	20	100	150	350	650	1 700	<b>3 350</b> <b>950</b>	<b>11 000</b> <b>1 900</b>	<b>11 000</b> <b>5 700</b>	N/A
Flammable	Butane <sup>2</sup>	C <sub>4</sub> H <sub>10</sub>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Ethane	C <sub>2</sub> H <sub>6</sub>	40	200	<b>350</b> <b>50</b>	<b>700</b> <b>100</b>	<b>1 800</b> <b>200</b>	4 000	<b>6 000</b> <b>2 300</b>	<b>20 000</b> <b>4 500</b>	<b>20 000</b> <b>13 800</b>	N/A N/A
	Ethylene	C <sub>2</sub> H <sub>4</sub>	40	200	350	700	2 000	4 000	<b>7 000</b> <b>2 000</b>	<b>22 000</b> <b>4 000</b>	<b>22 000</b> <b>12 700</b>	N/A
	Hydrogen	H <sub>2</sub>	40	200	400	900	2 000	4 500	22 000	45 000	130 000	N/A
	Methane	CH <sub>4</sub>	35	175	350	700	1 700	3 500	<b>13 000</b> <b>2 000</b>	33 000	<b>42 000</b> <b>12 000</b>	N/A
	Propane	C <sub>3</sub> H <sub>8</sub>	50	<b>200</b> <b>25</b>	<b>200</b> <b>50</b>	<b>400</b> <b>100</b>	<b>1 000</b> <b>250</b>	<b>3 500</b> <b>500</b>	<b>3 500</b> <b>2 600</b>	<b>11 000</b> <b>5 400</b>	—	N/A
Fluoro-carbons	Carbon tetrafluoride	CF <sub>4</sub>	20	100	200	400	1 000	2 000	<b>3 700</b> <b>1 200</b>	<b>12 000</b> <b>2 400</b>	<b>12 000</b> <b>7 300</b>	N/A
	Hexafluoroethene	C <sub>2</sub> F <sub>6</sub>	25	<b>100</b> <b>15</b>	<b>120</b> <b>30</b>	<b>250</b> <b>50</b>	<b>600</b> <b>150</b>	<b>2 000</b> <b>300</b>	<b>1 800</b> <b>1 500</b>	<b>6 000</b> <b>3 000</b>	—	N/A
	Trifluoromethane	CHF <sub>3</sub>	25	125	<b>240</b> <b>30</b>	<b>450</b> <b>60</b>	<b>1 200</b> <b>150</b>	2 500	<b>4 000</b> <b>1 500</b>	<b>12 000</b> <b>3 000</b>	<b>12 000</b> <b>8 800</b>	N/A
Other	Air	Air	20	100	200	400	1 000	2 000	10 000	20 000	<b>50 000</b> <b>7 200</b>	N/A
	Carbon dioxide	CO <sub>2</sub>	25	125	250	500	1 250	2 500	<b>6 600</b> <b>1 400</b>	<b>20 000</b> <b>2 500</b>	<b>20 000</b> <b>8 800</b>	N/A
	Carbon monoxide	CO	20	100	200	400	1 000	2 000	10 000	20 000	<b>40 000</b> <b>7 500</b>	N/A
	Nitrous oxide	N <sub>2</sub> O	25	125	250	500	1 250	2500	<b>11 000</b> <b>1 500</b>	<b>20 000</b> <b>3 000</b>	<b>20 000</b> <b>9 000</b>	N/A
	Octafluorocyclobutane <sup>2</sup>	C <sub>4</sub> F <sub>8</sub>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Oxygen	O <sub>2</sub>	20	100	200	400	1 000	2 000	10 000	20 000	<b>40 000</b> <b>6 500</b>	N/A

A bold value indicates that the maximum flow is limited by the maximum Reynolds number value of 1 200 which is reached before the normal differential pressure range is reached. In that case, the second value gives the minimum flow for which measurement uncertainty (accuracy) is equal to the nominal uncertainty specification. Divide the second value by 10 when using molbox RFM microrange option.

<sup>1</sup> Due to low vapor pressure, only downstream calibration type is available.  
<sup>2</sup> The operating pressure range is greater than the vapor pressure value for this gas.

Where there is no value in the field (-), this indicates that the maximum Reynolds number is reached before the differential pressure reaches 5 kPa (1 kPa in the case of the 1E5 molbloc), therefore calibration with that gas is not useful.

Calibration type	Operating pressure (absolute)
Downstream	Atmospheric pressure downstream of the molbloc
Low Pressure	250 to 325 kPa (36 to 48 psia) upstream of the molbloc
High Pressure	325 to 525 kPa (48 to 76 psia) upstream of the molbloc

**Fluke Calibration.** Precision, performance, confidence.™

Electrical	RF	Temperature	Pressure	Flow	Software
------------	----	-------------	----------	------	----------

**Fluke Calibration**  
 PO Box 9090,  
 Everett, WA 98206 U.S.A.

**Fluke Europe B.V.**  
 PO Box 1186, 5602 BD  
 Eindhoven, The Netherlands

**For more information call:**  
 In the U.S.A. (877) 355-3225 or Fax (425) 446-5116  
 In Europe/M-East/Africa +31 (0) 40 2675 200 or Fax +31 (0) 40 2675 222  
 In Canada (800)-36-FLUKE or Fax (905) 890-6866  
 From other countries +1 (425) 446-5500 or Fax +1 (425) 446-5116  
 Web access: <http://www.flukecal.com>

©2009-2012 Fluke Corporation. Specifications subject to change without notice.  
 Printed in U.S.A. 6/2012 3542583C\_EN

Modification of this document is not permitted without written permission from Fluke Corporation.