

Laminar Flow Elements for Hose Connections



50MH10 Series



50MC2 Series


Laminar Flow Elements (LFEs) from Meriam Process Technologies accurately measure gas flow in applications where precision counts. Each LFE includes NIST traceable calibration data certified by Meriam's ISO 9001 Flow Lab.


± 0.72% of Reading accuracy is available for full scale flows under 1000 SCFM and ± 0.86% of Reading for full scale flows of 1000 SCFM and higher.

LFE models for hose type process connections are conveniently mated to rigid piping with lengths of flexible hose or rubber couplings. The LFE is sealed into the piping system using conventional strap clamps.

Hose type connections are available for tube or pipe sizes from 1" (25.4 mm) to 16" (406.4 mm) in diameter.

Quick Selection Chart - Hose Connection LFEs

	Hose process connections	Nominal Air Flow Range (29.92"Hg. Abs. & 70° F)		DP @ Flow	Nominal Air Flow Range (760 mm Hg. Abs. & 21.1° C)				DP @ Flow
		SCFM	PPM		CC/MIN	LPM	kg/MIN	mm H ₂ O	
1"	50MH10-1	7.5	0.562	8	2.12 x 10 ⁵	212	0.254	203.2	
1¼"	50MH10-1¼	16	1.20	8	4.53 x 10 ⁵	453	0.543	203.2	
1½"	50MH10-1½	23	1.72	8	6.23 x 10 ⁵	623	0.746	203.2	
2"	50MH10-2	40	3.00	8	1.13 x 10 ⁶	1130	1.357	203.2	
3"	50MH10-3	90	6.74	8	2.55 x 10 ⁶	2550	3.05	203.2	
4"	50MH10-4	160	12.0	8	4.53 x 10 ⁶	4530	5.43	203.2	
5"	50MH10-5	250	18.7	8	7.08 x 10 ⁶	7080	8.48	203.2	
6"	50MH10-6 (x)	360	27.0	8	1.02 x 10 ⁷	10200	12.2	203.2	
8"	50MH10-8 (x)	640	47.9	8	1.81 x 10 ⁷	18100	21.7	203.2	
10"	50MH10-10 (x)	1000	74.9	8	2.83 x 10 ⁷	28300	33.9	203.2	
12"	50MH10-12 (x)	1440	108	8	4.07 x 10 ⁷	40700	48.8	203.2	
16"	50MH10-16 (x)	2250	168	8	6.37 x 10 ⁷	63700	76.3	203.2	

	Hose process connections	Nominal Air Flow Range (29.92"Hg. Abs. & 70° F)		DP @ Flow	Nominal Air Flow Range (760 mm Hg. Abs. & 21.1° C)				DP @ Flow
		SCFM	PPM		CC/MIN	LPM	kg/MIN	mm H ₂ O	
2"	50MC2-2	100	7.49	8	2.83 x 10 ⁶	2830	3.39	203.2	
4"	50MC2-4	400	30.0	8	1.13 x 10 ⁷	11300	13.6	203.2	
6"	50MC2-6	1000	74.9	8	2.83 x 10 ⁷	28300	33.9	203.2	
8"	50MC2-8	2250	168	8	6.37 x 10 ⁷	63700	76.3	203.2	

Inlet filters are available for all models above except those marked with an "(x)". Add suffix "F" to model number, ex: 50MC2-4F

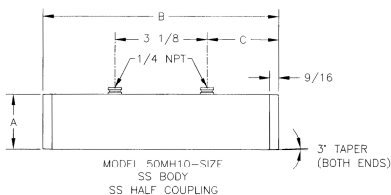
For sizing guidelines consult Meriam's Technical and Sizing Bulletin F/N 501TECH:215.

For information on other LFE model options consult Meriam's LFE Brochure, F/N 501:215.



Typical Applications

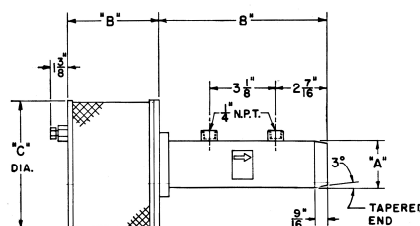
- Leak detection and quantification
- Calibration standards
- Flow measurement
 - Actual volumetric flow rate
 - Standard volumetric flow rate
 - Mass flow rate
- Flow control
- Respiration measurement
- Solvent recovery measurement
- Discrete parts testing
 - Maximum allowable leak testing
 - Minimum flow through testing
- Engine testing (combustion air flow)
- Engine emissions testing (dilution air flow)
- Synthetic material quenching applications
- Door and window leak testing
- Architectural material leak testing



SIZE	PIPE O.D. A	B	C
1	1 5/16	8	2 7/16
1 1/4	1 21/32	8	2 7/16
1 1/2	1 29/32	8	2 7/16
2	2 3/8	8	2 7/16

SIZE	PIPE O.D. A	B	C
3	3 1/2	8	2 7/16
4	4 1/2	8	2 7/16
6	5 9/16	8	2 7/16
8	6 5/8	8	2 7/16

SIZE	PIPE O.D. A	B	C
8	8 5/8	12	4 7/16
10	10 3/4	12	4 7/16
12	12 3/4	12	4 7/16
16	16	12	4 7/16



SIZE	PIPE O.D. A	B	C
1"	1 5/16	4 1/4	6"
1 1/4"	1 21/32	4 1/4	6"
1 1/2"	1 29/32	4 1/4	6"
2"	2 3/8	4 1/4	6"

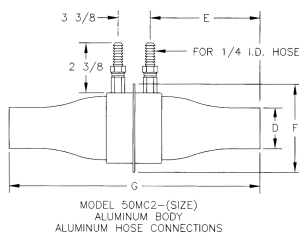
SIZE	PIPE O.D. A	B	C
3"	3 1/2	4 1/4	6"
4"	4 1/2	8"	8 1/4"
5"	5 9/16	12 1/4	10 1/2"
6"	6 5/8	12 1/4	10 1/2"

MODEL 50MH10-(SIZE) F
304 SST BODY
303 SST HALF COUPLINGS

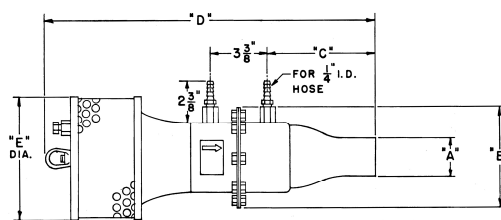
50MH10 Series Specifications

±0.72 to ±0.86% of Reading traceable to NIST
20:1 turndown
0.1% Repeatability
16 ms Response time

304SS body material
304SS matrix material
Maximum working pressure: 100 PSIG
Process connections: 3° taper for hose
Instrument connections: 1/4" NPT (F)



MODEL	SIZE	D	E	F	G
50MC2-2	2	5 9/16	5 1/4	14	1 1/2
50MC2-4	4	10 5/16	8 1/2	24	
50MC2-6	6	13 5/16	12	30	
50MC2-8	8	16 5/16	16 3/4	36	



SIZE	A	B	C	D	E
2"	5 1/4	5 9/16	18 5/8	6"	
4"	8 1/2	10 5/16	30 1/2	9 1/8	
6"	12	13 5/16	36 1/2	13 1/4	
8"	16 3/4	16 5/16	44 5/8	12 1/2	

MODEL 50MC2-(SIZE) F
1100-01(250) ALUMINUM BODY
11ST-3 ALUMINUM HOSE CONNECTIONS

50MC2 Series Specifications

±0.72 to ±0.86% of Reading traceable to NIST
20:1 turndown
0.1% Repeatability
16 ms Response time
Process connections: hose type

Aluminum body material
304SS matrix material
Buna-N o-ring material
Maximum working pressure: 20 PSIG
Instrument connections: 1/4" hose barb

