

Zero Casing Leakage Laboratory Exhaust Air Terminal

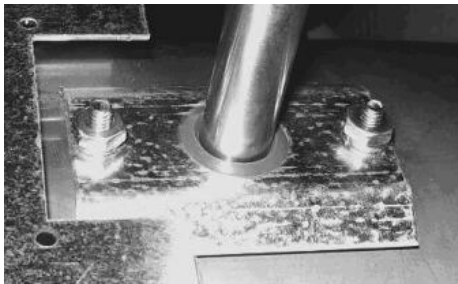


Figure 1. External Shaft Seal of Model LGZ Exhaust Terminal.

The Siemens Zero-Casing Leakage Laboratory Exhaust Air Terminal is an industrial grade, easy-to-install, pre-packaged airflow measurement and control terminal unit designed for the requirements of ductwork in biocontainment facilities. When used with the Laboratory Controller, it provides stable and precise exhaust airflow control over the entire range of airflow requirements.

Features

- All units leak less than 0.1% per minute of internal volume per ASME N510 Pressure Decay test.
- Individually factory leak tested to 15" W.C. (3750 Pa).
- External shaft seals ensure zero casing leakage.
- Solid stainless steel damper shaft on Teflon® bushings for smooth, maintenance free operation.
- 20 Gauge 316L stainless steel construction with flanges meeting SMACNA industrial standard.
- Orifice plate airflow measurement resists fouling.
- Flow signal tubing sealed with 2-valve manifold
Optional 5-valve manifold with HEPA filters.
- Low non-recoverable static pressure loss
- Sizes 4, 6, 7, 8, 9, 10, 12, 14, 16 & 18 inch diameter. Airflow capacities from 35 to 5655 cfm.
- Factory-mounted measurement and control devices to simplify installation (optional).

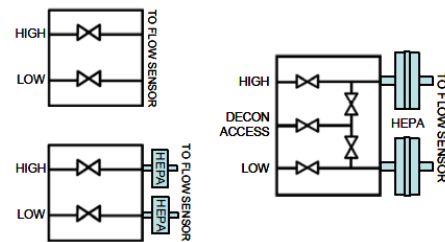


Figure 2. Flow Signal Manifold Options.

Materials (within air stream) – Standard

Duct Casing	20 gauge 316 stainless steel with SMACNA RIDCS flanged ends.
Airflow Sensor	Orifice ring, 20 ga. 316 stainless steel with pressure signal taps.
Damper Blade	20 ga. 316 stainless steel with Volara edge seals. 90 degree rotation.
Damper Shaft	½-inch (1.27 cm) diameter, solid stainless steel; shaft end marked with the damper position.
Damper Bushings	Teflon

Materials (outside air stream) – Standard

Control Enclosure	22 gauge galvanized steel
Pneumatic Tubing	UL rated 94 V-2 fire retardant
Pneumatic Fittings	Brass, dual barbed in enclosure only

Airflow Measurement Accuracy

Flow Measurement	±2% of actual flow @ listed ranges (sensor only. Does not include accuracy of controller or transmitter)
Installation Requirements	Rigid duct of the same diameter 1 x duct diameters upstream from the sensor is required.

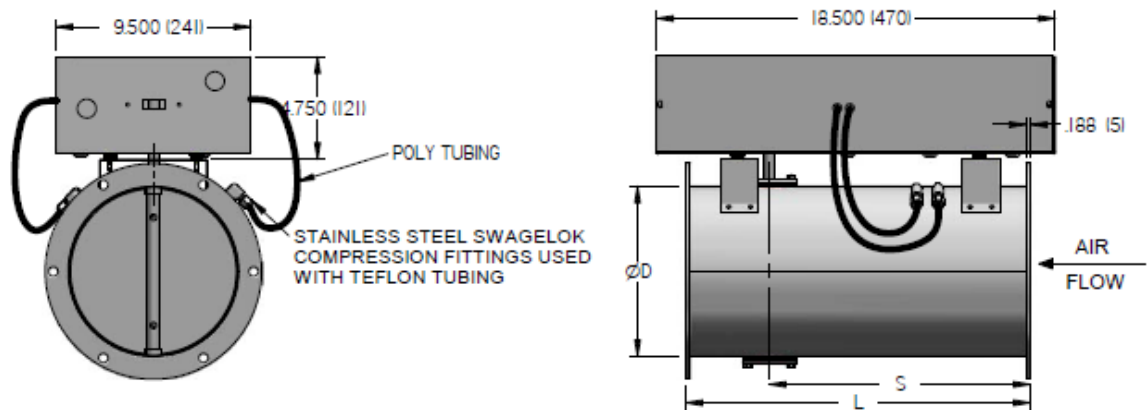
Environmental

Operating Temperature/% RH	40 to 120°F (4 to 50°C) 0 to 95% non-condensing
Storage Temperature/% RH	-10 to 150°F (-23 to 65°C) 0 to 95% non-condensing

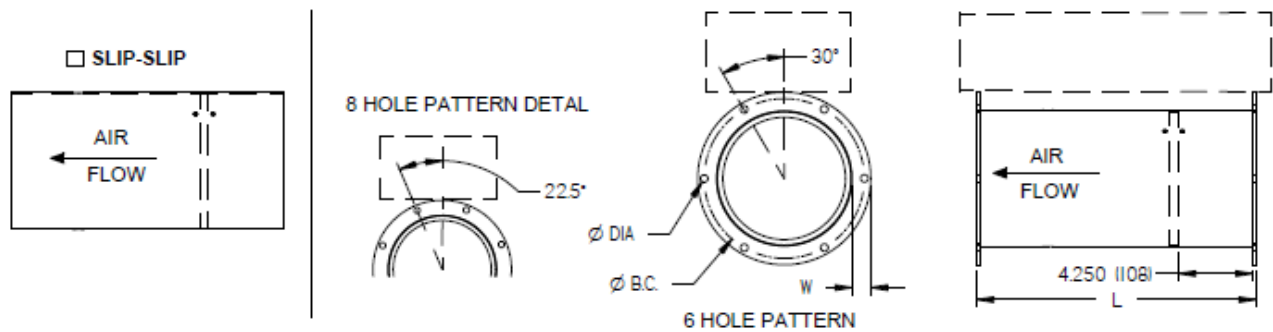
Dimensions

Weight	20 to 32 lbs.(9.1 to 14.5 kg)
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Dimensions



OPTIONAL END CONFIGURATIONS:



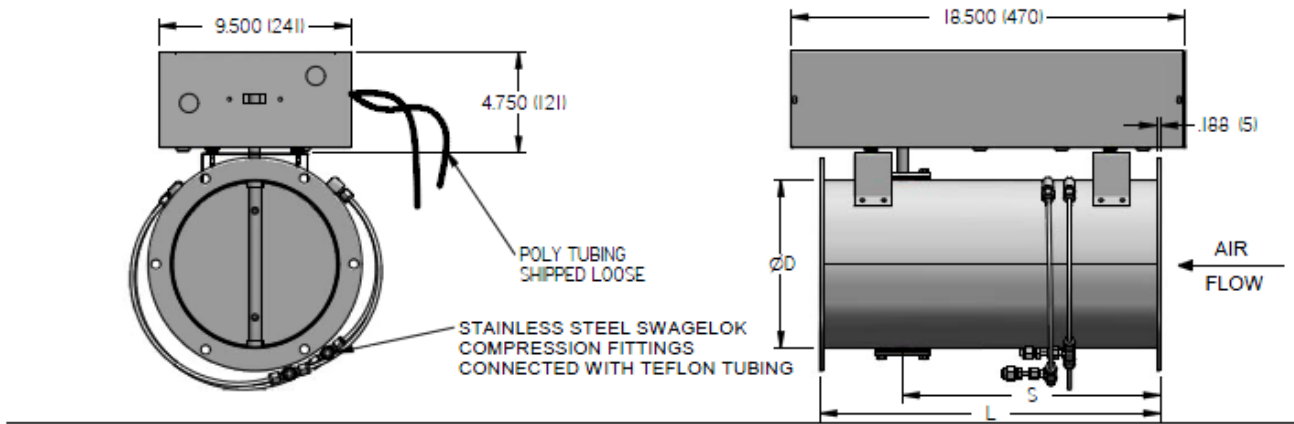
NOTES:

- 20 GA. 316L STAINLESS STEEL CONTINUOUSLY WELDED CONSTRUCTION c/w STAINLESS STEEL SHAFT
- ORIFICE RING FLOW SENSOR
- TEFLON DAMPER SHAFT BEARINGS AND A VOLARA DAMPER BLADE SEAL
- HIGH STRENGTH TEFLON TUBING WITH STAINLESS STEEL SWAGelok COMPRESSION FITTINGS
- CONTORLS ENCLOSURE, 22 GA. ZINC COATED
- ALL HEAVY DUTY FLANGE DIMENSIONS MEET THE MINIMUM FOR SMACNA RIDCS

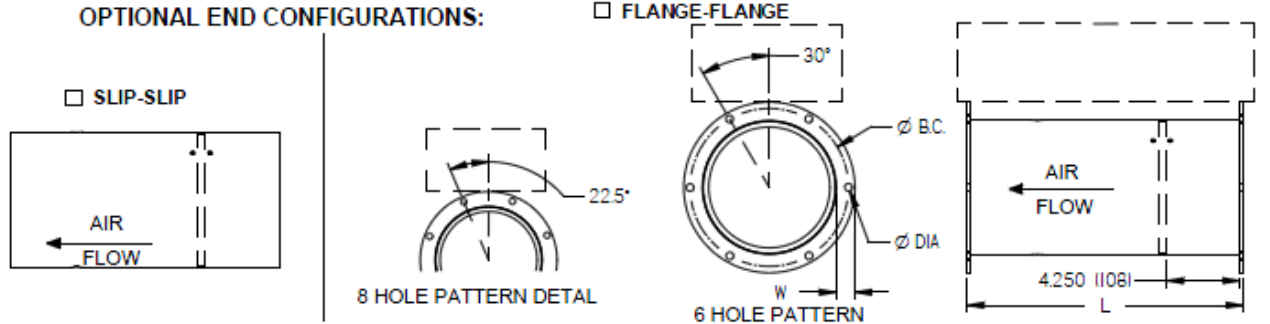
NOM SIZE	DIAMETER D (mm)	LENGTH L (mm)	SHAFT LOC. S (mm)	FLANGE WIDTH W (mm)	# OF HOLES	HOLE DIA. (mm)	BOLT CIRCLE B.C. (mm)
4	3.875 (99)	16 (406)	12 (305)	1.0 (25)	6	0.438 (11)	5.250 (133)
6	5.875 (149)	16 (406)	12 (305)	1.0 (25)	6	0.438 (11)	7.250 (184)
7	6.875 (175)	16 (406)	12 (305)	1.0 (25)	6	0.438 (11)	8.250 (210)
8	7.875 (200)	16 (406)	12 (305)	1.0 (25)	6	0.438 (11)	9.250 (235)
9	8.875 (225)	19.5 (495)	13.25 (337)	1.0 (25)	6	0.438 (11)	10.250 (260)
10	9.875 (251)	19.5 (495)	13.25 (337)	1.0 (25)	6	0.438 (11)	11.250 (286)
11	11.875 (302)	20.5 (521)	13.25 (337)	1.0 (25)	6	0.438 (11)	13.250 (337)
12	11.875 (302)	20.5 (521)	13.25 (337)	1.0 (25)	6	0.438 (11)	13.250 (337)
14	13.875 (352)	23 (584)	14.5 (368)	1.5 (38)	8	0.438 (11)	15.750 (400)
16	15.875 (403)	25 (635)	15.5 (394)	1.5 (38)	8	0.438 (11)	17.750 (451)
18	17.875 (403)	25 (635)	15.5 (394)	1.5 (38)	8	0.438 (11)	19.750 (502)

ALL METRIC DIMENSIONS () ARE SOFT CONVERTED. IMPERIAL DIMENSIONS ARE CONVERTED TO METRIC AND ROUNDED TO THE NEAREST MILLIMETER.

Figure 3. Diagram, Dimensions and Flows for Construction Option BAS and BAF.



OPTIONAL END CONFIGURATIONS:



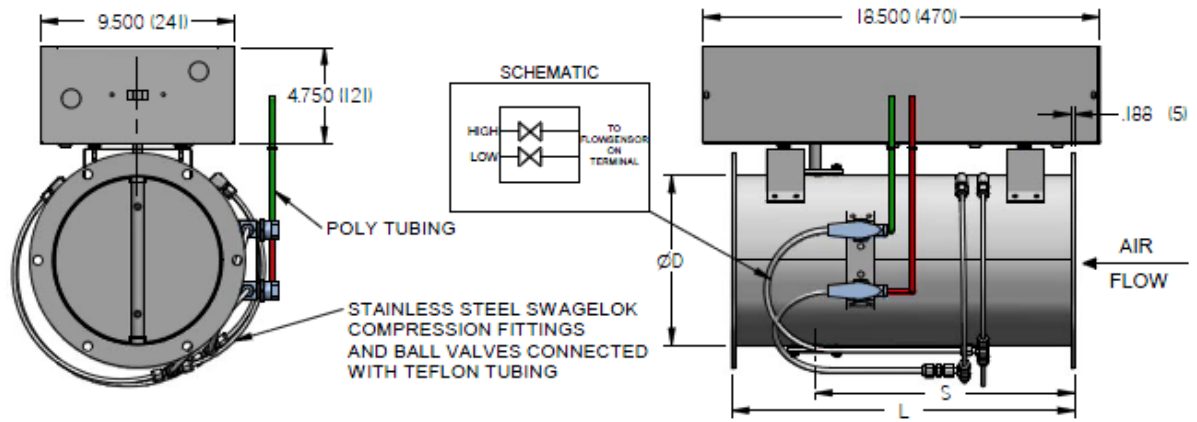
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- TEFLON DAMPER SHAFT BEARINGS AND A VOLARA DAMPER BLADE SEAL
- HIGH STRENGTH TEFLON TUBING WITH STAINLESS STEEL SWAGELOK COMPRESSION FITTINGS
- HI/LO SIGNAL TEFLON TUBING SEALED WITH COMPRESSION FITTING PLUG
- SHIPPED WITH COMPRESSION FITTINGS CONNECTED TO 1/4" POLY TUBING FROM CONTROLS
- CONTROLS ENCLOSURE, 22 GA. ZINC COATED
- ALL HEAVY DUTY FLANGE DIMENSIONS MEET THE MINIMUM FOR SMACNA RIDCS
- FACTORY BUBBLE TESTED AT 15 in wc.

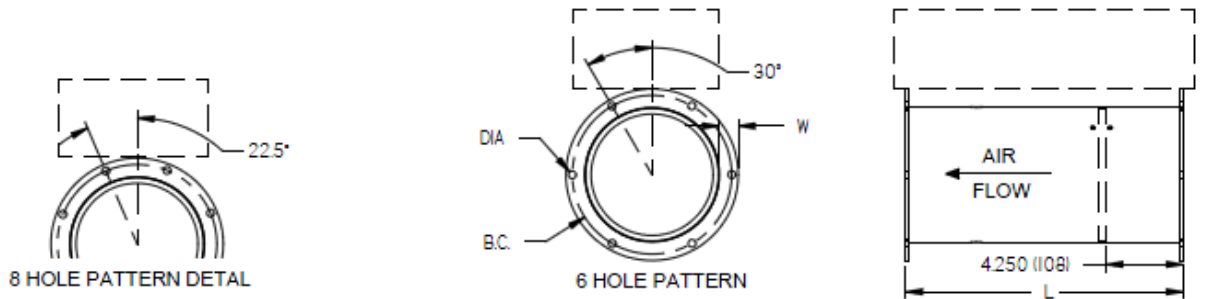
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18	17.875 (403)	25 (635)	15.5 (394)	1.5 (38)	8	0.438 (11)	19.750 (502)

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Figure 4. Dimensions and Flows for Construction Option B1F.



FLANGED END CONFIGURATIONS



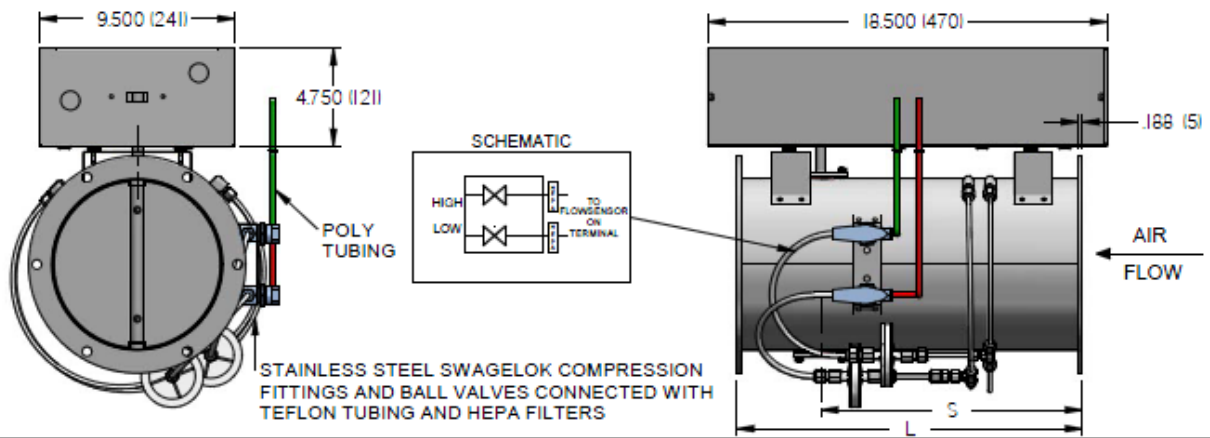
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- HIGH STRENGTH TEFLON TUBING WITH STAINLESS STEEL SWAGelok COMPRESSION FITTINGS
- TWO SWAGelok ISOLATION VALVES ON HI/LO SIGNAL TUBING
- 1/4" POLY TUBING FROM SWAGelok VALVES TO CONTROLS
- CONTROLS ENCLOSURE, 22 GA. ZINC COATED
- ALL HEAVY DUTY FLANGE DIMENSIONS MEET THE MINIMUM FOR SMACNA RIDCS
- FACTORY BUBBLE TESTED AT 15 in wc.

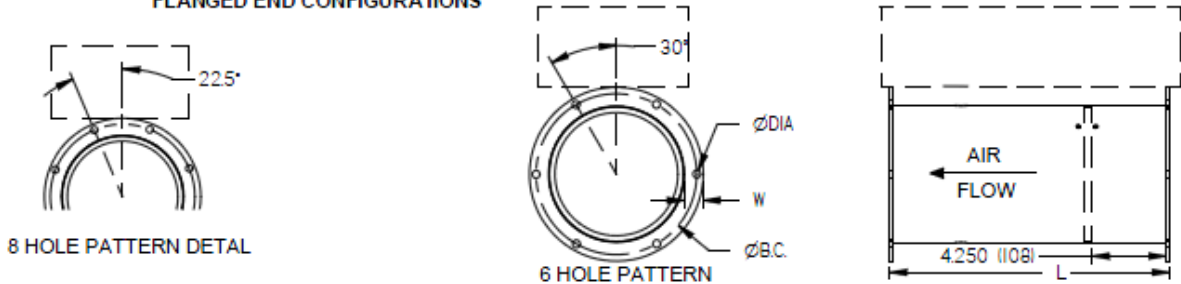
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Figure 5. Dimensions and Flows for Construction Option B2F.



FLANGED END CONFIGURATIONS



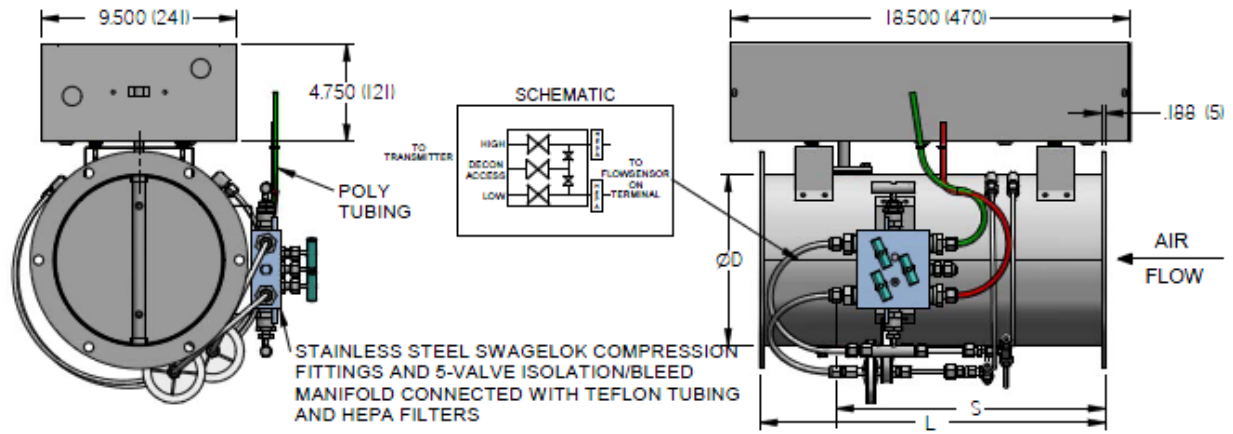
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- CONTROLS ENCLOSURE, 22 GA. ZINC COATED
- ALL HEAVY DUTY FLANGE DIMENSIONS MEET THE MINIMUM FOR SMACNA RIDCS
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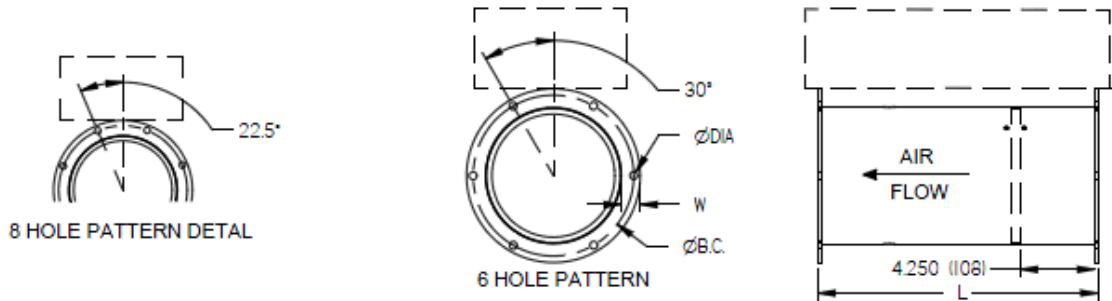
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Figure 6. Dimensions and Flows for Construction Option B3F.



FLANGED END CONFIGURATIONS



NOTES:

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- ORIFICE RING FLOW SENSOR
- TEFLON DAMPER SHAFT BEARINGS AND A VOLARA DAMPER BLADE SEAL
- HIGH STRENGTH TEFLON TUBING WITH STAINLESS STEEL SWAGelok COMPRESSION FITTINGS
- 5-VALVE SWAGelok ISOLATION/ BLEED MAIFOLD WITH PALL HEPA FILTERS ON HI/LO SIGNAL TUBING
- 1/4" POLY TUBING FROM SWAGelok MANIFOLD TO CONTROLS
- CONTORLS ENCLOSURE, 22 GA. ZINC COATED
- ALL HEAVY DUTY FLANGE DIMENSIONS MEET THE MINIMUM FOR SMACNA RIDCS
- FACTORY BUBBLE TESTED AT 15 in wc.

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Figure 7. Dimensions and Flows for Construction Option B5F.

Table 1. Minimum Pressure Drop at Listed Airflow.

Unit Size	Flow		Minimum Operating Pressure Drop		Unit Size	Flow		Minimum Operating Pressure Drop	
	CFM	Lps	IN WG	Pa		CFM	Lps	IN WG	Pa
4	36	17	0.01	2.5	10	238	112	0.01	2.5
	44	21	0.01	2.5		273	129	0.01	2.5
	87	41	0.05	12.5		545	257	0.03	7.5
	175	83	0.20	50.0		1091	515	0.14	35.0
	252	119	0.42	105		1686	796	0.37	92.5
6	89	42	0.02	5.0	12	339	160	0.00	0.0
	98	46	0.03	7.5		393	185	0.00	0.0
	196	92	0.12	30.0		785	370	0.02	5.0
	393	185	0.51	128		1571	741	0.06	15.0
	627	296	1.32	330		2394	1130	0.12	30.0
7	121	57	0.02	5.0	14	460	217	0.00	0.0
	134	63	0.02	5.0		535	252	0.00	0.0
	267	126	0.09	22.5		1069	504	0.01	2.5
	535	252	0.36	90.0		2138	1009	0.07	17.5
	855	403	0.93	233		3254	1536	0.19	47.5
8	148	70	0.01	2.5	16	626	295	0.00	0.0
	175	83	0.02	5.0		698	329	0.00	0.0
	349	165	0.06	15.0		1396	659	0.01	2.5
	698	329	0.22	55.0		2793	1318	0.04	10.0
	1049	495	0.48	120		4429	2090	0.12	30.00
9	196	92	0.01	2.5	18	791	373	0.00	0.0
	221	104	0.01	2.5		884	417	0.00	0.0
	442	209	0.05	12.5		1767	834	0.01	2.5
	884	417	0.18	45.0		3534	1668	0.04	10.0
	1389	655	0.44	110		5591	2638	0.11	27.5

INLET SIZE	Unit Internal Volume		Leakage Limit <0.1% volume/minute	
	Cu. Ft.	Liters	SCFM	LPS
4	0.12	3.3	0.00012	0.00005
6	0.26	7.4	0.00026	0.00012
7	0.36	10.1	0.00036	0.00017
8	0.47	13.2	0.00047	0.00022
9	0.72	20.3	0.00072	0.00034
10	0.89	25.1	0.00089	0.00042
11	1.34	38.0	0.00134	0.00063
12	1.34	38.0	0.00134	0.00063
14	2.05	58.0	0.00205	0.00097
16	2.91	82.4	0.00291	0.00137
18	3.98	112.6	0.00398	0.00188

LGZ BLADE SEAL LEAKAGE (VOLARA material, test per ASHRAE 130-1996)						
Unit Size	(CFM, in water)			(lps, Pascals)		
	1.0" wc	3.0" wc	6.0" wc	250 Pa	750 Pa	1500 Pa
4	0	1	3	0.0	0.5	1.4
6	0	1	3	0.0	0.5	1.4
7	1	2	3	0.5	0.9	1.4
8	1	2	3	0.5	0.9	1.4
9	1	2	4	0.5	0.9	1.9
10	1	3	4	0.5	1.4	1.9
11/12	1	2	4	0.5	0.9	1.9
14	1	3	5	0.5	1.4	2.4
16	1	3	5	0.5	1.4	2.4
18	1	3	5	0.5	1.4	2.4

PERFORMANCE NOTES:

1. Leakage tested in accordance with ANSI ASME Standard N510-1989 pressure decay method. Individual factory certification available.
2. Minimum Static Pressure is measured across terminal unit in accordance with ASHRAE Standard 130-1996.

Table 2. Radiated Sound Data for Exhaust Terminal. Sound Power Levels, Lw dB, re 10⁻¹² Watts.

Unit Size	Pressure Drop		125 Pa (0.5" W.G.)							250 Pa (1.0" W.G.)							500 Pa (2.0" W.G.)							750 Pa (3.0" W.G.)						
	Airflow		Octave Band							Octave Band							Octave Band							Octave Band						
	Lps	cfm	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7				
4	35	75	51	29	27	22	19	17	51	32	30	27	24	24	52	36	33	31	29	31	52	38	35	34	32	35				
	71	150	52	34	36	31	27	23	52	38	40	35	32	30	53	41	43	40	37	36	53	43	45	42	40	41				
	106	225	52	38	42	36	31	26	53	41	45	41	36	33	53	45	49	45	41	40	53	47	51	48	44	44				
	132	279	53	39	45	39	33	28	53	43	48	43	39	35	53	46	52	48	44	42	54	48	54	50	47	46				
6	59	125	41	27	23	21	20	20	44	31	27	26	26	26	46	35	32	31	32	33	48	38	34	34	35	37				
	118	250	44	33	30	29	26	25	46	37	35	34	31	31	49	41	39	39	37	38	50	43	42	41	40	42				
	177	375	45	36	35	33	29	28	48	40	39	38	35	34	50	44	44	43	40	41	52	46	46	46	44	44				
	236	500	46	38	38	36	31	30	49	42	42	41	37	36	51	46	47	46	43	43	53	49	50	49	46	47				
296	628	47	40	40	39	33	32	50	44	45	44	39	38	52	48	49	49	44	44	54	50	52	51	48	48					
7	71	150	43	28	22	21	22	19	45	31	26	25	26	24	46	34	30	29	31	29	47	36	33	31	34	33				
	142	300	46	33	29	29	27	24	47	36	33	33	32	29	49	39	37	36	37	35	50	41	40	39	40	38				
	212	450	47	36	33	33	30	27	49	39	37	37	35	32	50	42	42	41	40	38	51	43	44	43	43	41				
	284	601	48	38	36	37	33	29	50	41	40	40	37	34	51	44	45	44	42	40	52	46	47	46	45	43				
8	83	175	42	30	25	22	23	23	44	33	29	26	28	28	47	37	33	30	32	34	48	38	35	32	35	37				
	177	375	45	34	32	30	29	28	47	37	36	34	34	33	50	41	40	38	38	39	51	42	42	40	41	42				
	271	575	47	36	36	35	33	31	49	40	40	38	37	36	52	43	44	42	42	42	53	45	46	44	45	45				
	366	775	48	38	39	38	35	33	50	41	43	42	40	38	53	44	47	45	44	44	54	46	49	47	47	47				
527	1117	49	40	42	42	38	35	52	43	46	45	43	41	54	46	50	49	47	46	56	48	53	51	50	49					
9	118	250	38	30	27	25	25	24	41	34	31	29	31	30	45	39	35	33	36	36	47	42	38	36	39	40				
	236	500	42	34	33	32	29	27	46	38	38	36	35	34	49	43	42	40	40	40	51	46	45	42	43	44				
	354	750	45	36	37	35	32	29	48	41	42	39	37	36	52	45	46	43	43	42	54	48	48	46	46	46				
	469	994	47	37	40	38	34	31	50	42	44	42	39	37	53	47	49	46	44	43	55	50	51	48	48	47				
10	118	250	43	28	23	24	25	24	46	32	28	29	30	30	49	36	32	34	34	35	51	39	34	36	37	39				
	260	550	45	33	32	30	30	29	48	37	37	35	35	34	51	41	41	40	40	40	53	44	43	43	43	43				
	401	850	46	36	37	34	33	31	49	40	41	39	38	37	52	44	46	44	43	42	54	47	48	47	46	45				
	543	1150	47	38	41	37	35	33	50	42	45	41	40	38	53	46	49	46	45	44	55	49	52	49	48	47				
11	684	1450	47	40	43	39	37	34	50	44	48	43	42	40	53	48	52	48	46	45	55	50	54	51	49	48				
	824	1745	48	41	45	40	38	35	51	45	50	45	43	41	54	49	54	50	48	46	56	52	56	53	50	49				
	165	350	38	28	26	23	24	24	42	31	29	27	29	30	45	35	33	30	33	37	47	37	35	32	36	41				
	307	650	43	34	33	30	30	28	46	37	36	34	35	35	49	41	40	37	40	41	51	43	42	40	42	45				
12	448	950	46	37	37	34	33	31	49	41	41	38	38	37	52	45	44	42	43	44	54	47	46	44	46	48				
	590	1250	48	40	41	38	36	33	51	43	44	41	41	39	54	47	48	45	46	46	56	49	50	47	49	50				
	701	1485	49	41	43	40	38	34	52	45	46	43	43	40	55	49	50	47	48	47	57	51	52	49	51	51				
	165	350	37	29	27	25	27	26	40	33	32	29	33	33	43	38	36	34	38	40	45	40	38	36	41	44				
14	401	850	44	36	36	33	33	31	47	40	40	37	38	38	50	44	44	42	44	44	52	47	47	44	47	48				
	637	1350	47	39	40	37	36	33	50	44	44	41	41	40	53	48	49	46	47	47	55	50	51	48	50	50				
	873	1850	49	42	43	40	38	35	53	46	47	44	43	41	56	50	52	49	48	48	57	53	54	51	52	52				
	1109	2350	51	43	45	42	39	36	54	48	50	47	45	43	57	52	54	51	50	49	59	55	56	53	53	53				
16	1186	2513	52	44	46	43	40	36	55	48	50	47	45	43	58	53	54	51	50	50	60	55	57	54	54	54				
	236	500	42	29	30	27	28	26	45	35	35	32	34	33	48	40	40	38	40	39	50	43	44	41	43	43				
	590	1250	47	38	39	36	35	32	50	43	44	41	41	39	53	48	50	47	46	45	55	51	53	50	50	49				
	944	2000	50	42	44	41	38	36	53	47	49	46	44	42	56	52	54	51	50	48	58	55	58	54	53	52				
18	1298	2750	52	44	47	44	41	38	55	50	52	49	47	44	58	55	58	54	52	50	60	58	61	57	56	54				
	1615	3421	54	46	49	46	42	39	57	51	54	51	48	45	60	57	60	56	54	52	61	59	63	60	57	55				
	283	600	45	34	35	33	35	28	47	37	39	38	40	34	49	41	42	42	45	40	50	44	44	45	48	44				
	661	1400	50	40	42	39	39	34	52	44	46	44	45	40	54	48	49	48	50	46	55	51	51	51	53	49				
20	1038	2200	53	44	46	42	42	36	55	48	49	47	47	43	57	52	53	51	52	49	58	54	55	54	55	52				
	1416	3000	55	47	49	44	44	39	57	51	52	49	49	45	59	55	55	54	54	51	60	57	57	56	57	54				
	1793	3800	56	49	51	46	45	40	58	53	54	51	50	46	60	56	57	55	55	52	61	59	59	58	58	56				
	2110	4470	57	50	52	47	46	41	59	54	55	52	51	47	61	58	59	56	56	53	62	60	60	59	59	57				
22	358	760	45	34	35	33	35	28	47	37	39	38	40	34	49	41	42	42	45	40	50	44	44	45	48	44				
	835	1770	50	40	42	39	39	34	52	44	46	44	45	40	54	48	49	48	50	46	55	51	51	51	53	49				
	1311	2780	53	44	46	42	42	36	55	48	49	47	47	43	57	52	53	51	52	49	58	54	55	54	55	52				
	1792	3800	55	47	49	44	44	39	57	51	52	49	49	45	59	55	55	54	54	51	60	57	57	56	57	54				
24	2264	4800	56	49	51	46	45	40	58	53	54	51	50	46	60	56	57	55	55	52	61	59	59	58	58	56				
	2665	5650	57	50	52	47	46	41	59	54	55	52	51	47	61	58	59	56	56	53	62	60	60	59	59	57				

Performance Notes:

1. Tested in accordance with ASHRAE Standard 130-1996: "Methods of Testing for Rating Ducted Air Terminal Units."
2. Airflow given in liters/seconds (L/s); and in cubic feet per minute (cfm).
3. Pressure given in Pascals (Pa) and inches of water gauge (in W.G.).

Table 3. Discharge Sound Data for Exhaust Terminal. Sound Power Levels, Lw dB, re 10⁻¹² Watts.

Unit Size	Airflow Lps cfm		125 Pa (0.5" W.G.)					250 Pa (1.0" W.G.)					500 Pa (2.0" W.G.)					750 Pa (3.0" W.G.)								
			Octave Band					Octave Band					Octave Band					Octave Band								
			2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7
4	35	75	46	43	45	43	43	38	51	49	50	49	49	45	56	54	55	54	55	53	58	58	58	58	58	57
	71	150	52	50	52	50	49	43	56	56	57	56	55	50	61	61	62	61	61	58	64	65	65	64	65	62
	106	225	55	54	56	54	53	46	60	60	61	60	59	54	65	65	67	65	65	61	67	69	70	68	68	65
	132	279	57	56	59	56	54	48	62	62	64	62	60	55	66	67	69	67	66	63	69	71	72	71	70	67
6	59	125	47	40	43	45	43	39	51	45	48	50	49	45	56	50	52	54	55	52	59	53	55	57	59	56
	118	250	54	48	50	51	48	44	58	53	55	55	54	50	63	58	60	60	60	57	66	61	62	63	63	61
	177	375	58	53	54	54	50	47	62	58	59	59	56	53	67	63	64	64	63	60	70	66	67	67	66	64
	236	500	61	56	57	56	52	49	65	61	62	61	58	55	70	66	67	66	64	62	73	69	70	69	68	66
	296	628	63	58	59	58	54	50	68	64	64	63	60	57	72	69	69	68	66	64	75	72	72	71	70	68
7	71	150	43	38	41	40	39	36	48	42	45	45	45	43	53	47	50	50	51	50	55	50	53	52	54	54
	142	300	51	46	48	48	45	42	56	51	53	52	51	49	61	56	58	57	57	55	64	58	60	60	60	59
	212	450	55	51	53	52	49	45	60	56	57	57	55	52	65	61	62	61	61	59	68	63	65	64	64	63
	284	601	59	55	56	55	52	48	64	59	61	60	58	54	69	64	65	64	63	61	72	67	68	67	67	65
8	83	175	43	38	40	43	45	38	48	43	45	47	51	45	53	48	50	52	57	53	56	50	53	55	60	58
	177	375	52	47	49	50	50	44	57	52	53	54	56	52	62	57	58	59	62	59	64	59	61	62	65	64
	271	575	57	53	53	54	53	47	61	57	58	58	59	55	66	62	63	63	64	63	69	64	66	66	68	67
	366	775	60	56	57	57	55	49	65	61	61	61	61	57	70	65	66	66	66	65	73	68	69	69	70	70
	527	1117	64	61	61	60	57	52	69	65	66	65	63	60	74	70	70	69	69	68	77	72	73	72	72	73
9	118	250	46	41	42	43	42	34	51	46	47	48	48	41	56	51	51	53	54	48	59	54	54	56	57	52
	236	500	53	48	50	50	48	41	58	53	55	55	53	48	63	58	59	59	59	55	66	61	62	62	63	59
	354	750	58	53	55	54	51	45	63	58	59	58	57	52	68	63	64	63	62	59	71	66	66	66	66	63
	469	994	60	56	58	56	53	47	66	61	62	61	59	54	71	66	67	66	65	61	74	69	69	69	68	66
10	118	250	45	41	42	41	41	40	50	46	47	47	47	47	54	51	51	52	52	54	57	54	54	55	56	58
	260	550	54	50	51	48	47	45	59	55	55	53	53	52	63	59	60	59	59	59	66	62	62	62	63	63
	401	850	59	54	55	52	51	48	64	59	60	57	57	55	68	64	65	62	63	62	71	67	67	66	66	65
	543	1150	63	58	59	54	54	50	67	62	63	60	60	57	71	67	68	65	66	64	74	70	71	68	69	67
	684	1450	65	60	61	56	56	52	70	65	66	62	62	58	74	70	70	67	68	65	77	72	73	70	71	69
	824	1745	67	62	63	58	57	53	72	67	68	63	63	60	76	72	73	69	69	66	79	74	75	72	73	70
11	165	350	49	42	42	42	42	37	53	47	47	47	48	44	57	53	51	52	54	51	60	56	54	55	57	55
	307	650	55	48	48	47	47	41	59	54	53	52	53	48	64	59	58	57	59	55	66	62	61	60	62	60
	448	950	59	52	52	51	50	44	63	57	57	56	55	51	67	63	62	60	61	58	70	66	65	63	65	62
	590	1250	62	55	55	53	52	46	66	60	60	58	57	53	70	66	65	63	63	60	73	69	68	66	67	64
	701	1485	64	57	57	54	53	47	68	62	62	59	59	54	72	67	67	64	65	62	75	70	70	67	68	66
12	165	350	46	41	41	41	42	36	50	46	46	46	48	43	55	51	50	51	54	50	57	54	53	54	57	54
	401	850	56	51	51	49	48	43	60	56	56	54	54	50	64	61	60	59	60	57	67	63	63	62	64	61
	637	1350	61	55	56	53	52	46	65	60	61	58	58	53	70	65	65	63	64	61	72	68	68	66	67	65
	873	1850	65	59	59	56	54	49	69	64	64	61	60	56	73	69	69	66	66	63	76	72	71	69	70	67
	1109	2350	67	61	62	58	56	51	72	66	67	63	62	58	76	71	71	68	68	65	78	74	74	71	71	69
	1186	2513	68	62	63	59	57	51	72	67	67	64	62	58	77	72	72	69	68	66	79	75	75	72	72	70
14	236	500	47	41	42	43	45	40	51	47	47	47	50	46	55	52	51	52	56	53	58	55	53	54	59	56
	590	1250	57	51	53	52	51	47	62	57	57	56	57	53	66	62	61	60	62	59	68	65	64	63	65	63
	944	2000	63	56	58	56	55	50	67	62	62	61	60	56	71	67	67	65	65	62	74	70	69	67	68	66
	1298	2750	66	60	62	59	57	52	71	65	66	64	62	58	75	70	70	68	68	65	78	74	73	71	71	68
	1615	3421	69	62	64	61	59	54	73	67	68	66	64	60	77	73	73	70	69	66	80	76	75	73	72	70
16	283	600	47	42	43	44	46	39	51	47	47	49	52	46	56	52	51	54	58	53	58	55	54	57	61	57
	661	1400	56	51	52	51	51	44	60	56	56	56	56	51	65	61	60	61	62	58	67	64	63	63	66	62
	1038	2200	61	56	57	55	53	47	65	61	61	60	59	54	69	66	65	64	65	61	72	69	68	67	68	65
	1416	3000	64	59	60	57	55	49	68	64	64	62	61	56	73	69	68	67	66	63	75	72	71	69	70	67
	1793	3800	67	61	62	59	56	50	71	66	67	64	62	57	75	71	71	69	68	64	78	74	73	71	71	68
	2110	4470	68	63	64	60	57	51	73	68	68	65	63	58	77	73	72	70	68	65	79	76	75	73	72	69
18	358	760	47	42	43	44	46	39	51	47	47	49	52	46	56	52	51	54	58	53	58	55	54	57	61	57
	835	1770	56	51	52	51	51	44	60	56	56	56	56	51	65	61	60	61	62	58	67	64	63	63	66	62
	1311	2780	61	56	57	55	53	47	65	61	61	60	59	54	69	66	65	64	65	61	72	69	68	67	68	65
	1792	3800	64	59	60	57	55	49	68	64	64	62	61	56	73	69	68	67	66	63	75	72	71	69	70	67
	2264	4800	67	61	62	59	56	50	71	66	67	64	62	57	75	71	71	69	68	64	78	74	73	71	71	68
2665	5650	68	63	64	60	57	51	73	68	68	65	63	58	77	73	72	70	68	65	79	76	75	73	72	69	

Performance Notes:

1. Tested in accordance with ASHRAE Standard 130-1996: "Methods of Testing for Rating Ducted Air Terminal Units."
2. Airflow given in liters/seconds (Lps); and in cubic feet per minute (cfm).
3. Pressure given in Pascals (Pa) and inches of water gauge (in W.G.).

Ordering Information

Part numbers are configured on the selections you choose. There are no spaces or dashes in the part number.

NOTE: Not all combinations or configurations will yield a valid part number in SAP.

Sample Part Number: LGZEOBOR14BAF

Model Number	Control Package Number	Mounting Side	Inlet (Duct) Size	Casing Material and Sensor Type	End Fitting	Custom Options
LGZ	EOBO	R	14	BA	F	
Zero Casing Leakage Exhaust Terminal	Enclosure with high speed GNP actuator, BACnet OAM.	Available in R only.	The inlet (or duct) size is 14 inches.	Stainless steel casing and Orifice sensor.	Flanged end fitting	Please contact your Siemens Representative for ordering instructions for Custom solution.

To create an orderable part number that can be entered in SAP, complete the following steps:

1. Begin with the Model Number, **LGZ**.
2. Select a Control Package number, and append it to the Model Number:

Generic

Control Package	...includes the following Control Components:			
	Actuator P/N	Transducer P/N	Flow Transmitter P/N	Controller P/N
G000	—	—	—	—
G800	546-00020	—	—	—
G803	546-00020	545-113	590-780	—
G815	546-00020	546-00090	590-780	—
G862	GNP191.1P	—	590-780	—
G865	GNP191.1P	—	—	—
G904	GDE131.1P	—	—	—
G905	GDE161.1P	—	590-780	—
G906	GMA131.1P	—	—	—
G907	GMA161.1P	—	590-780	—

Protocol 1 Floor Level Network

Control Package	...includes the following Control Components:			
	Actuator P/N	Transducer P/N	Flow Transmitter P/N	Controller P/N
G504	GDE131.1P	—	550-818B	—
G506	GMA131.1P	—	550-818B	—
G510	546-00020	546-00090	550-818B	—
G565	GNP191.1P	—	550-818B	—
U945	GMA131.1P	—	590-780	546-00750A
U862	GNP191.1P	—	590-780	546-00750A
V862	GNP191.1P	—	590-780	546-00705

BACnet MSTP Floor Level Network

Control Package	...includes the following Control Components:			
	Actuator P/N	Transducer P/N	Flow Transmitter P/N	Controller P/N
EOBO	GNP191.1P	—	550-819B	—
GOBO	GDE131.1P	—	550-819B	—
GXBO	GMA131.1P	—	550-819B	—
EOBF	GNP191.1P	—	550-819B	570-00701

Control Components

Part Number	Description	Part Number	Description
Actuation			
GNP191.1P	GNP Fast Acting Lab Electronic Actuator	546-00020	No. 3 Pneumatic Actuator for Labs
GDE161.1P	Fail-in-Last Position, Modulation, 44 in-lb electric actuator	545-113	AO-P 0-10V - Voltage to Pneumatic Transducer, 0-10 Vdc input
GMA161.1P	Fail-safe Spring Return Modulating 62 in-lb electric actuator	546-00090	High-Speed pulsed pneumatic Transducer
GMA131.1P	Fail-safe Spring Return Floating, 62 in-lb electric actuator	GDE131.1P	Fail-in-Last Position, Floating, 44 in-lb electric actuator
Controllers			
570-801P	BACnet Lab Controller Module, Applications 6723/6729, Low-Speed	550-819B	BACnet OAM - Off Board Air Module
570-803P	BACnet Lab Controller Module, Applications 6721/6727, High-Speed	570-811P	BACnet Pressurized Room Controller, Application 6731, Low-Speed
570-00701	BACnet Fume Hood Controller Module, Applications 6741/6742/6740	590-780	Differential Pressure Transmitter, 1" WC, 4-20 mA, 0.4% accuracy
550-767E	Lab Controller Module, Applications 2621/2627, High-Speed	550-818B	OAM – Off-board Air Module used in LCM-OAVS controllers
550-767F	Lab Controller Module, Applications 2623/2629, Low-Speed	550-767H	Pressurized Room Controller, Application 2631, Terminals with Low-Speed
546-00705	Variable Volume Fume Hood Controller	546-00750A	Constant volume Fume Hood Controller

- Choose **R** for the Mounting Side, and append the letter to the part number. (The **R** is required.)
- Choose the Inlet size (the size of the duct), and append the 2-digit number to the part number.

Inlet Size (in inches)	2-digit Number	Inlet Size (in inches)	2-digit number
4	04	11	11 (12" casing, special orifice)
6	06	12	12
7	07	14	14
8	08	16	16
9	09	18	18
10	10	—	—

- Choose the Casing Material and the Sensor, and append the letters to the part number:

Casing Material and Sensor Type	
BA	Stainless steel casing with orifice sensor.
B1	Stainless steel casing with orifice sensor, factory-sealed, immersion tested to 15"wc(3.75kPa)
B2	Same as B1, plus 2-valve signal isolation
B3	Same as B1, plus signal HEPA filters with 2-valve isolation
B5	Same as B1, plus signal HEPA filters with 5-valve isolation, including DECON port

- Select the End fitting, and append that letter to the part number: **F** = Flange (**S** = Slip available)
- (Custom Options): **T** = Transformer (120/24 CL.2) and Disconnect Switch

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