GW-V2 / V4 / V20 / V55
Permanent Magnet Shakers

Data Physics' range of small shakers are in use all over the world. Data Physics offers eight configurations of small, convection and air-cooled shakers for applications ranging from medical research, electronic component testing, materials analysis, automotive component testing, tire balancing and actuator applications for antenna positioning using low axial stiffness special suspension units.

Features

- Shakers from 2 lbf (9 N) to 100 lbf (444 N)
- 8 variants
- Exceptional axial and torsional stability
- Special suspension unit options

Options

- Beryllium copper suspension for V2 and V4
- Trunnions for V4, V20, and V55
- Three axis testing configurations for V20 and V55
- Monobases for V20 and V55
- Metric & imperial table threads

Typical Applications

- Component vibration testing
- Structural testing/modal excitation
- Sensor calibration

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	Maximum Sine Force (pk)		Maximum Random Force (rms)		Maximum Shock Force*		Maximum Acceleration (Sine)		Maximum Velocity		Displacement Peak to Peak		Armature Diameter		Armature Mass		Insert Threads		Armature Resonance	Frequency Range		Static Load Support – Axial Stiffness		Electrical Power Consumed	Shaker Body Mass***	
	lbf	N	lbf	N	lbf	N	g	m/s²	ips	m/s	in	mm	in	mm	lbs	kg	SAE	Metric	Hz	Min.	Max.	lbf/in	kgf/mm	kVA	lbs	kg
GW-V2/PA30E	2	9	0.7	3.0	2	27	91	892.4	29	0.73	0.1	2.5	0.25	6.4	0.02	.01	-------	M4	>16000	DC**	16000	17.9	0.32	0.10	1.87	0 .85
GW-V4/PA30E	4	17.8	1.3	5.9	4	17.8	91	892.4	59	1.49	0.2	5	0.5	12.7	0.04	0.02	#10-32	M4	>18000	DC**	18000	25.2	0.45	0.10	3.88	1.76
GW-V20/PA100E	22.5	100	7.4	33	22.5	100	60	588.4	60	1.51	0.4	10	1.5	38	0.37	0.17	#10-32	M5	12000	DC**	14000	63.8	1.14	0.20	35.94	16.3
GW-V20/PA300E	35	155	13	58	35	155	93	912.3	70	1.78	0.4	10	1.5	38	0.37	0.17	#10-32	M5	12000	DC**	14000	63.8	1.14	0.85	35.94	16.3
GW-V55/PA100E	32	142	11	50	32	142	30	283.4	32	0.81	0.5	12.7	3	76.2	1.10	0.5	1/4-28	M6	7600	DC**	8000	100.2	1.79	0.20	94.14	42.7
GW-V55/PA300E	70	310	25	110	70	310	63	618.0	45	1.14	0.5	12.7	3	76.2	1.10	0.5	1/4-28	M6	7600	DC**	8000	100.2	1.79	0.85	94.14	42.7
GW-V55/DSA5-1K	100	444	36	160	300	1332	91	892.4	60	1.52	0.5	12.7	3	76.2	1.10	0.5	1/4-28	M6	7600	5Hz	5000	100.2	1.79	2.1	94.14	42.7

* At 3 mSec, ½ Sine **Amplifier minimum frequency of 5Hz *** Includes trunnion

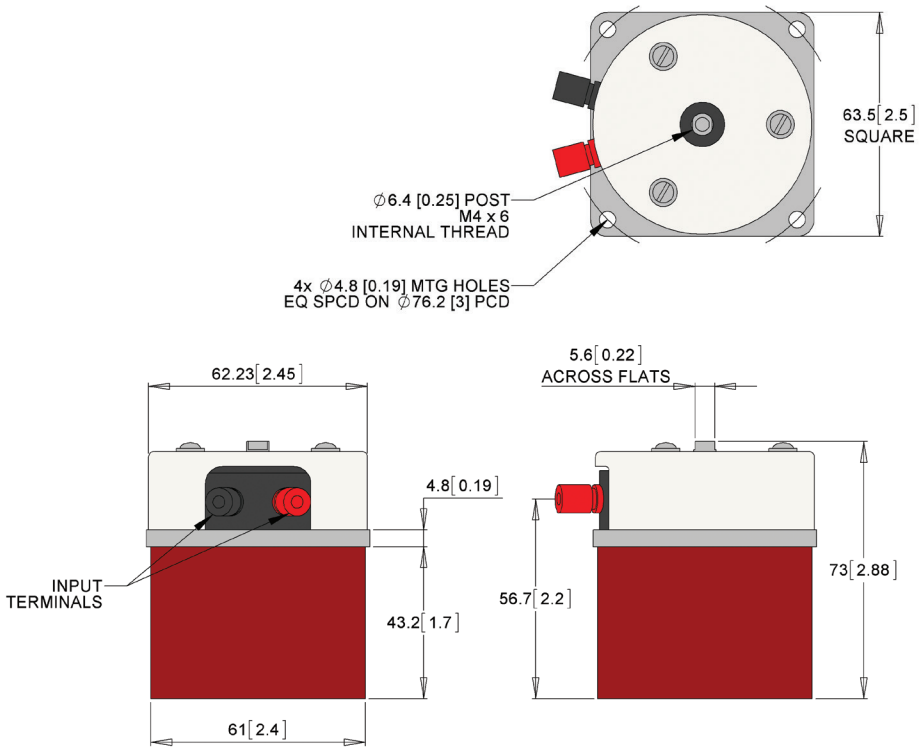
Amplifier Specifications

	Supply Power	Input Sensitivity for Full Output	Output Voltage	Output Current	Frequency Range	Signal to Noise Ratio	Weight
PA30E	115V/230V, 50/60 Hz, 1 phase	1.0 Vrms	10 V	3 Amps	DC-20 kHz	<10 mV rms	6.5 lbs (3 kg)
PA100E	115V/230V, 50/60 Hz, 1 phase	0.7 Vrms	10 V	10 Amps	DC-20 kHz	<10 mV rms	14 lbs (6.4 kg)
PA300E	115V/230V, 50/60 Hz, 1 phase	0.7 Vrms	10 V	30 Amps	DC-20 kHz	<10 mV rms	19 lbs (8.6 kg)
DSA5-1K	115V/230V, 50/60 Hz, 1 phase	1.414 Vrms	72 Vrms	14 Amps	5 Hz-5kHz (full power)		92 lbs (42 kg)

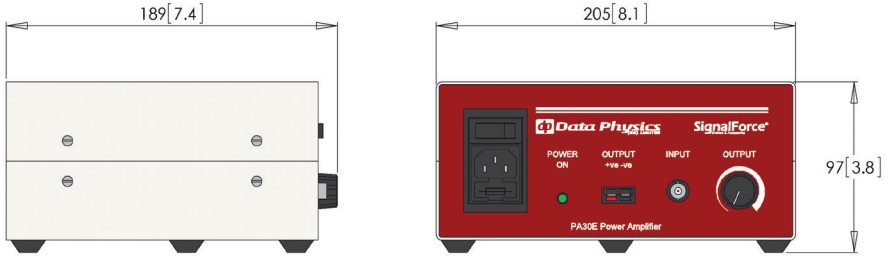
Additional DSA5-1K specs

Distortion (at rated output)	<0.4% approx. 5 Hz - 1 kHz <1.0% approx. 1 - 5kHz 0.25% typically
Hum and Noise	>-75dB at full output
DC Stability	<0.05% of full output voltage with +/- 10% change in input voltage
Cooling	120 CFM (0.056 m^3/sec) per module
Heat Rejected to Air	1500 BTU/hr (0.44 kW) per module (full output)
Isolation	floating
Temperature	Full Power to 104F (40C), derated at 2% per degree C beyond 104F (40C) to 131F (55C) max.
Humidity	0 to 80% RH (wet bulb temp. not to exceed 80.6F (27C)

GW-V2

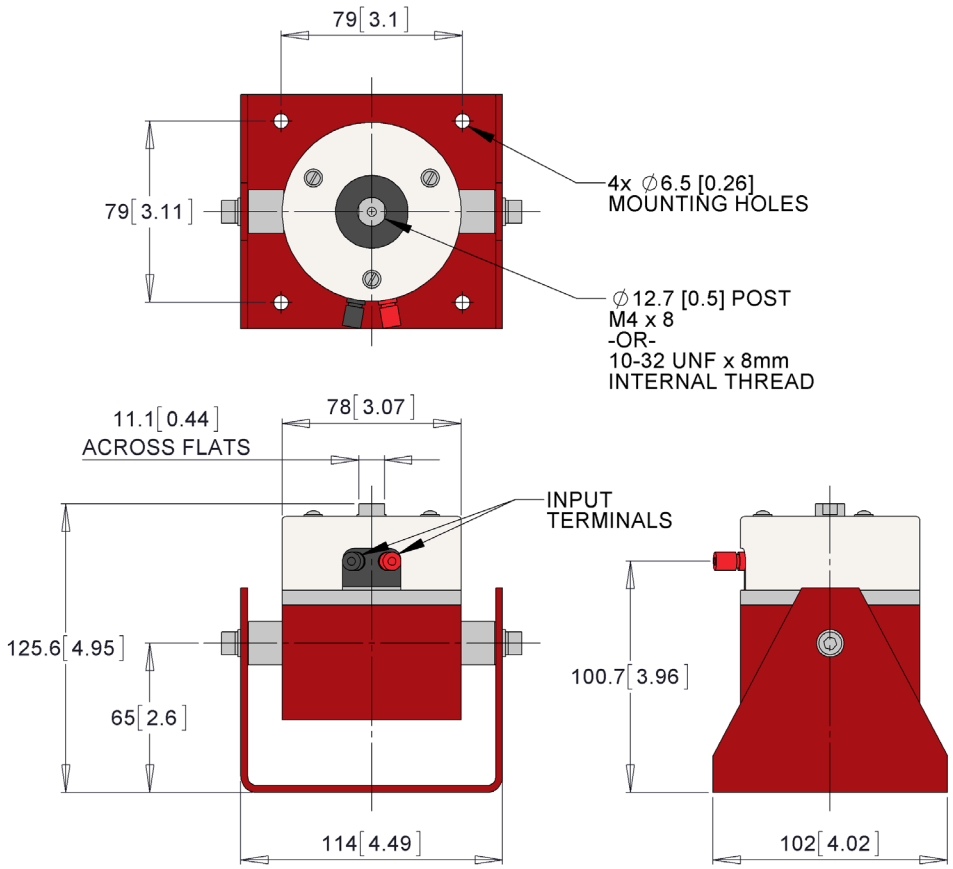


PA30E Amplifier

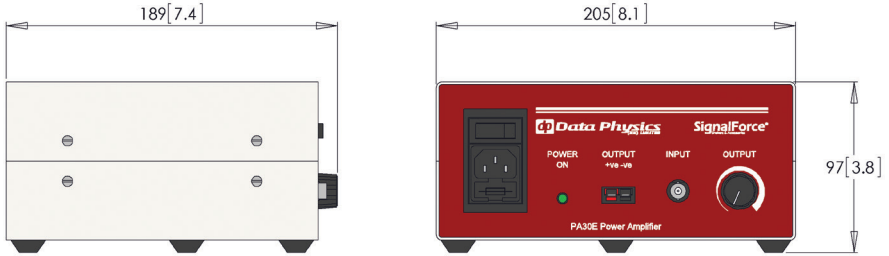


Measures are in millimeters [inches].

GW-V4

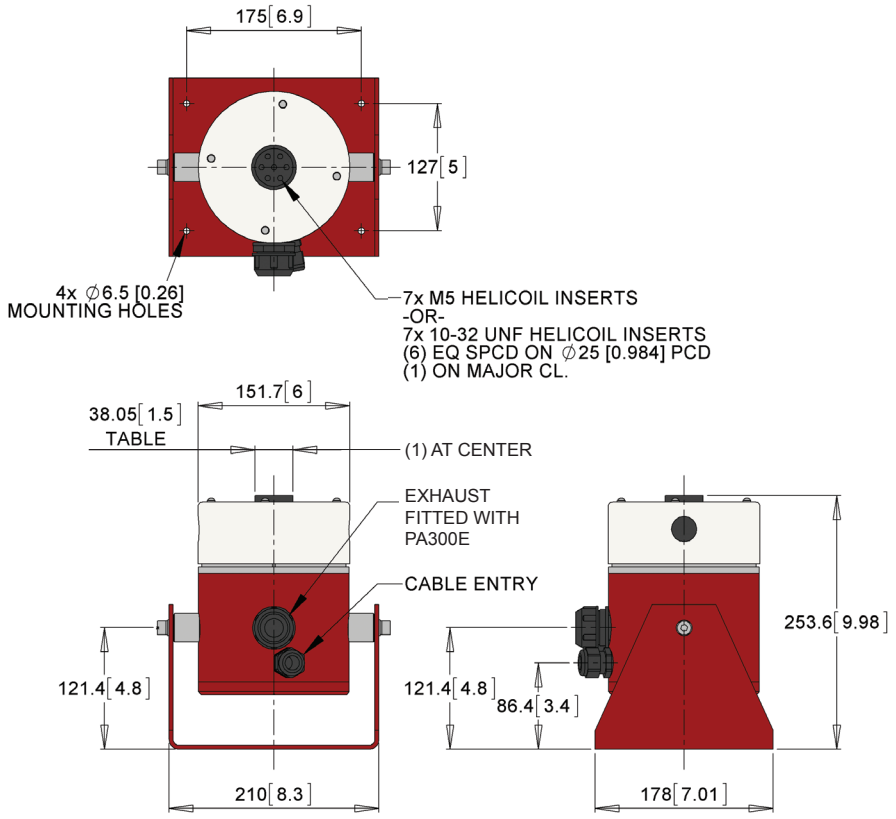


PA30E Amplifier

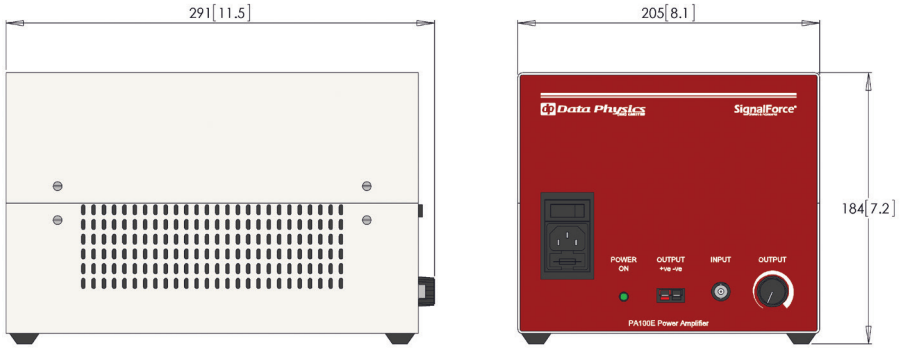


Measures are in millimeters [inches].

GW-V20

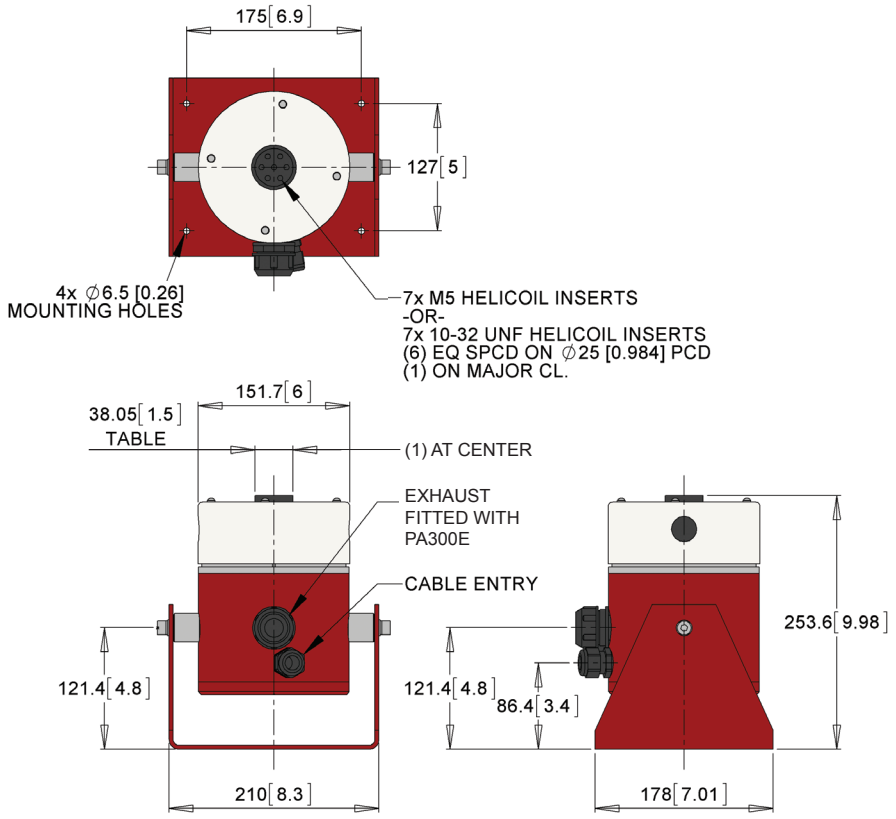


PA100E Amplifier

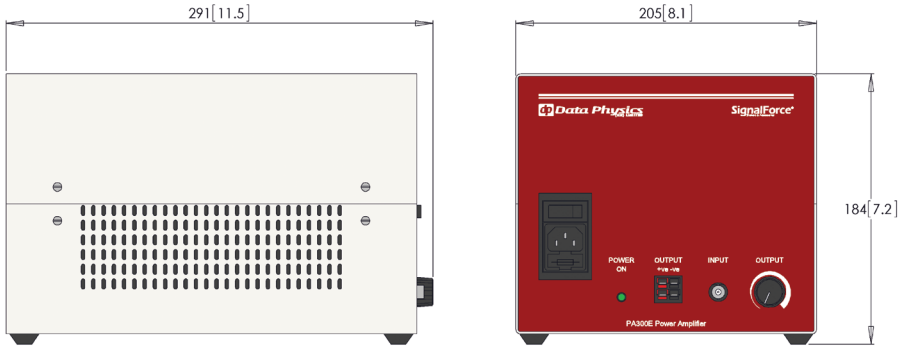


Measures are in millimeters [inches].

GW-V20

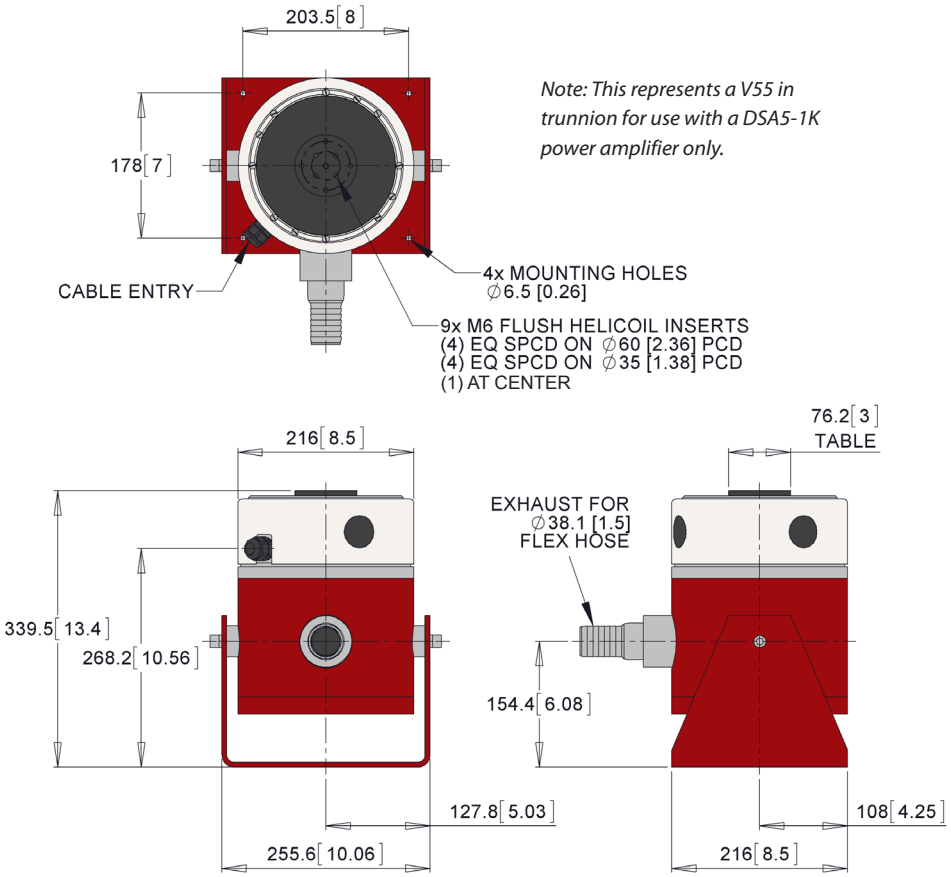


PA300E Amplifier



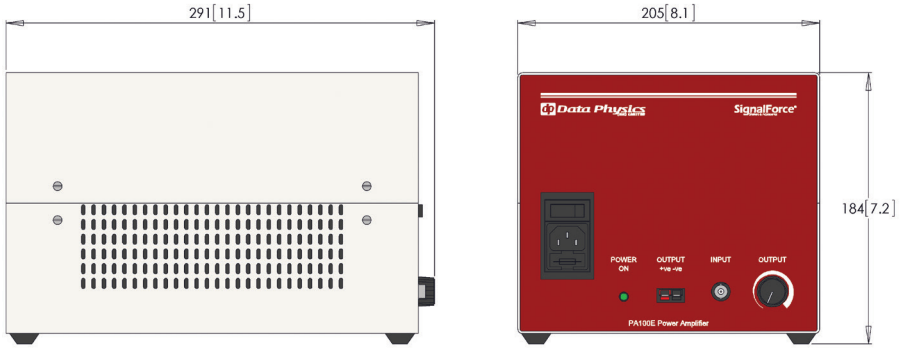
Measures are in millimeters [inches].

GW-V55



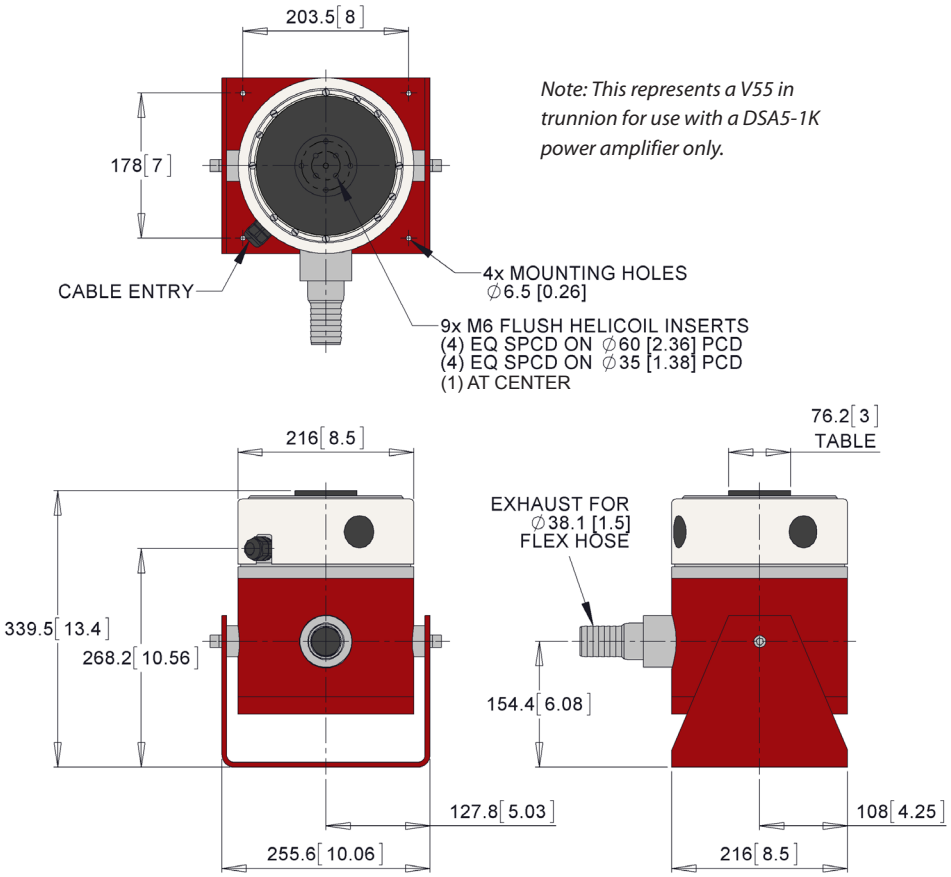
Note: This represents a V55 in trunnion for use with a DSA5-1K power amplifier only.

PA100E Amplifier



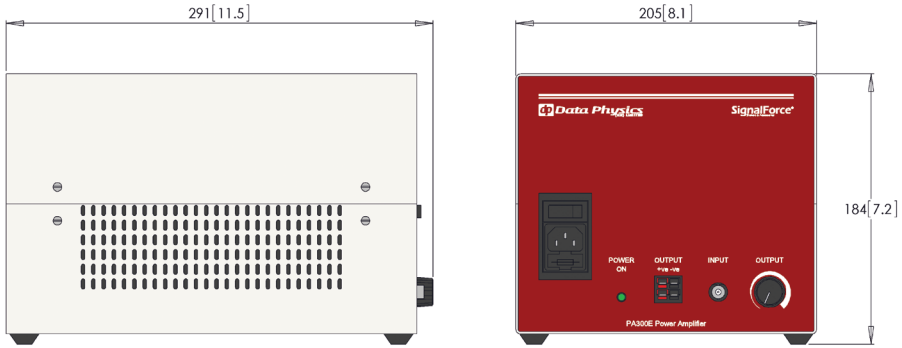
Measures are in millimeters [inches].

GW-V55



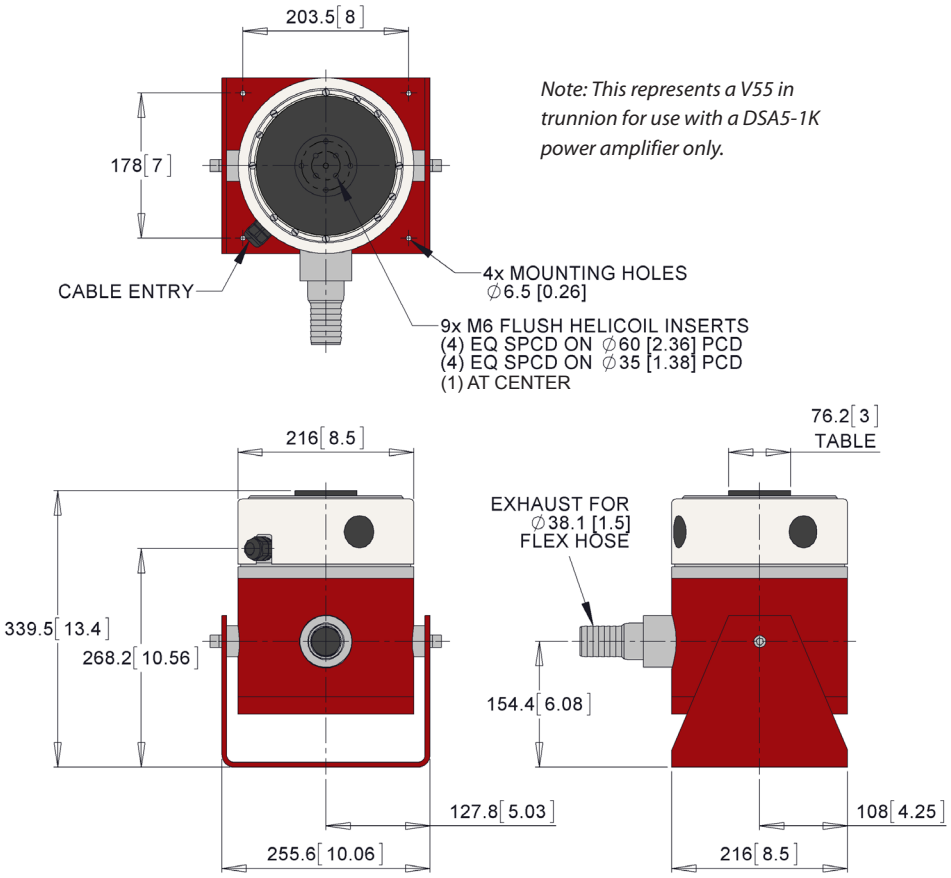
Note: This represents a V55 in trunnion for use with a DSA5-1K power amplifier only.

PA300E Amplifier



Measures are in millimeters [inches].

GW-V55



Note: This represents a V55 in trunnion for use with a DSA5-1K power amplifier only.

Additional DSA5-1K specs

Distortion (at rated output)	<0.4% approx. 5 Hz - 1 kHz <1.0% approx. 1 - 5kHz 0.25% typically
Hum and Noise	>-75dB at full output
DC Stability	<0.05% of full output voltage with +/- 10% change in input voltage
Cooling	120 CFM (0.056 m^3/sec) per module
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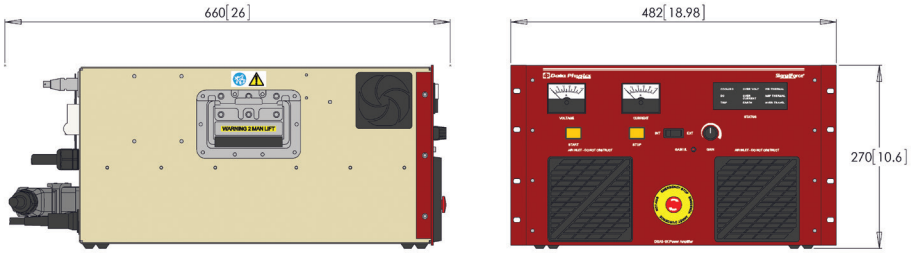
Humidity	0 to 80% RH (wet bulb temp. not to exceed 80.6F (27C)

DSA5-1K Amplifier



Measures are in millimeters [inches].