

Model Number: PLS-50F25AL03-04  
 Product Line: Peerless Gold

Revision: Rev 2\_0  
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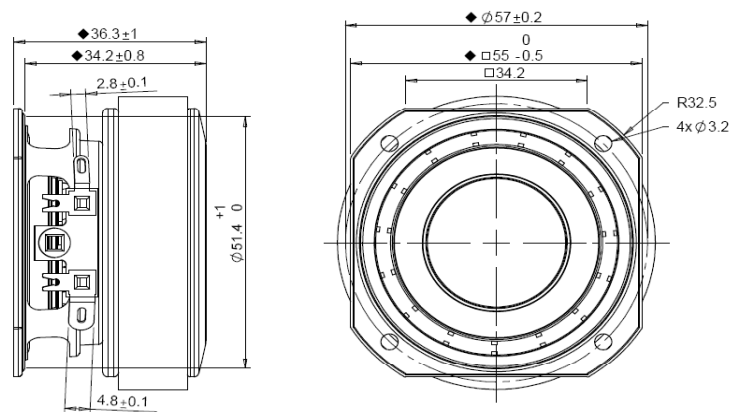


### Product Description:

This 2 inch 4 ohm member of the PLS family sets a high standard, for compact full range drivers intended for applications such as television soundbars and compact music systems. Design features in this family include a stiff steel basket with venting under the spider to aid cooling of the motor, a ferrite magnet motor with copper cap to lower coil inductance, providing low distortion at low frequencies and extended high frequency response. A black anodized aluminium cone is employed on the driver, along with a black anodized aluminium dust cap coupled directly to the voice coil. Additionally, the cones come equipped with special-designed large roll rubber surrounds, which allow for a dynamic linear response to high excursion input signals.



### Mechanical 2D Drawing:



### Specifications:

DC Resistance	$R_{evc}$	$\Omega$	3.4	$\pm 7.5\%$	Energy Bandwidth Product	EBP	$(1/Q_{es}) \cdot f_s$	194
Minimum Impedance	$Z_{min}$	$\Omega$	4.5	$\pm 7.5\%$	Moving Mass	$M_{ms}$	g	1.43
Voice Coil Inductance	$L_e$	mH	0.03		Suspension Compliance	$C_{ms}$	um/N	485.4
Resonant Frequency	$f_s$	Hz	191	$\pm 15\%$	Effective Cone Diameter	D	cm	4.4
Mechanical Q Factor	$Q_{ms}$	-	3.7		Effective Piston Area	$S_D$	cm <sup>2</sup>	15.2
Electrical Q Factor	$Q_{es}$	-	0.99		Equivalent Volume	$V_{as}$	L	0.158
Total Q Factor	$Q_{ts}$	-	0.78		Motor Force Factor	BL	T-m	2.44
Ratio $f_s / Q_{ts}$	F	$f_s / Q_{ts}$	245		Motor Efficiency Factor	$\beta$	$(T \cdot m^2) / \Omega$	1.74
Half Space Sensitivity @ 2.83V	dB@2.83V/1m	dB	85.6	$\pm 1.0^1$	Voice Coil Former Material	VC <sub>m</sub>	-	ASV
Sensitivity @ 1W/1m	1W/1m	dB	81.9	$\pm 1.0^1$	Voice Coil Inner Diameter	VC <sub>d</sub>	mm	25.73
Rated Noise Power (IEC 2685 18.1)	P	W	7		Gap Height	Gh	mm	3.00
Test Spectrum Bandwidth	150Hz-20KHz	12 dB/Oct			Maximum Linear Excursion	$X_{max}$	mm	1.65
					Ferrofluid Type	FF	-	N/A
					Transducer Size	-	-	2 inch
					Transducer Mass	-	Kg	0.32

1 - Piston Band Sensitivity Tolerance

### Frequency and Impedance Response:

