

Model Number: TC9FD-18-08  
Product Line: Peerless Silver

Revision: Rev 3\_0  
Date: 9-Oct-12

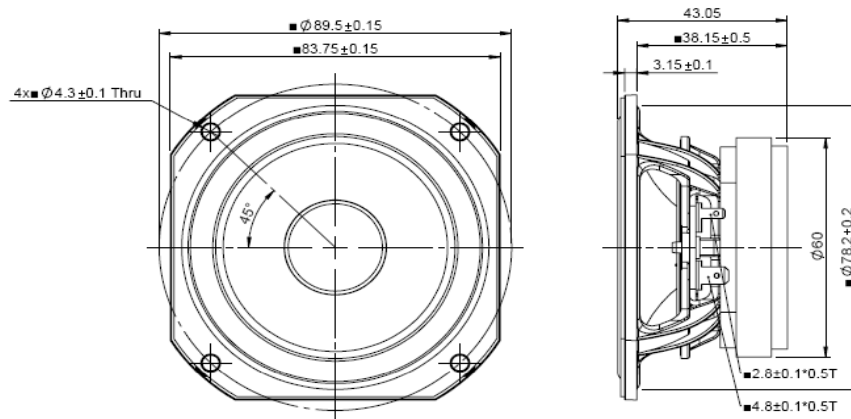


**Product Description:**

This TC family 3.5 inch 8 Ω full-range driver, with ferrite magnet, paper cone and rubber surround, and plastic basket, is designed to be a cost-effective high performance full range driver. The cone utilizes Tymphany-patented PentaCut NRSC cone technology to help dampen and control cone resonances, optimizing the listening experience. The motor contains a copper cap to lower inductance and distortion. The product was designed with television and other compact applications in mind.



**Mechanical 2D Drawing:**



**Specifications:**

DC Resistance	$R_{evc}$	$\Omega$	6.3	$\pm 7.5\%$	Energy Bandwidth Product	EBP	$(1/Q_{es}) \cdot f_s$	94
Minimum Impedance	$Z_{min}$	$\Omega$	7.8	$\pm 7.5\%$	Moving Mass	$M_{ms}$	g	2.43
Voice Coil Inductance	$L_e$	mH	0.05		Suspension Compliance	$C_{ms}$	um/N	669.6
Resonant Frequency	$f_s$	Hz	125	$\pm 15\%$	Effective Cone Diameter	D	cm	6.8
Mechanical Q Factor	$Q_{ms}$	-	2.7		Effective Piston Area	$S_D$	cm <sup>2</sup>	36.3
Electrical Q Factor	$Q_{es}$	-	1.33		Equivalent Volume	$V_{as}$	L	1.241
Total Q Factor	$Q_{ts}$	-	0.89		Motor Force Factor	BL	T-m	3.01
Ratio $f_s / Q_{es}$	F	$f_s / Q_{es}$	140		Motor Efficiency Factor	$\beta$	$(T \cdot m^2) / \Omega$	1.43
Half Space Sensitivity @ 2.83V	dB@2.83V/1m	dB	84.6	$\pm 1.0^1$	Voice Coil Former Material	VC <sub>m</sub>	-	ASV
Sensitivity @ 1W/1m	1W/1m	dB	83.5	$\pm 1.0^1$	Voice Coil Inner Diameter	VC <sub>d</sub>	mm	19.43
					Gap Height	Gh	mm	4.00
Rated Noise Power (IEC 2685 18.1)	P	W	30		Maximum Linear Excursion	$X_{max}$	mm	2.55
Test Spectrum Bandwidth	100Hz-20KHz		12 dB/Oct		Ferrofluid Type	FF		N/A
					Transducer Size	-	-	3.5 inch
					Transducer Mass	-	Kg	0.30

1 - Piston Band Sensitivity Tolerance

**Frequency and Impedance Response:**

