



# PRODUCT INFORMATION

Part #: **CE-CM301AVS**

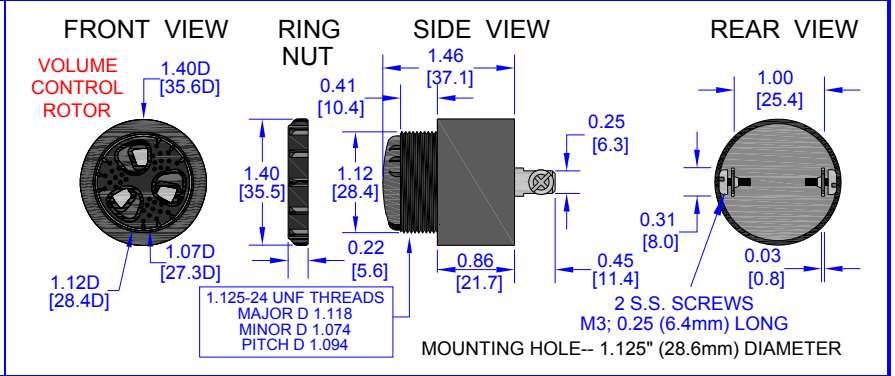
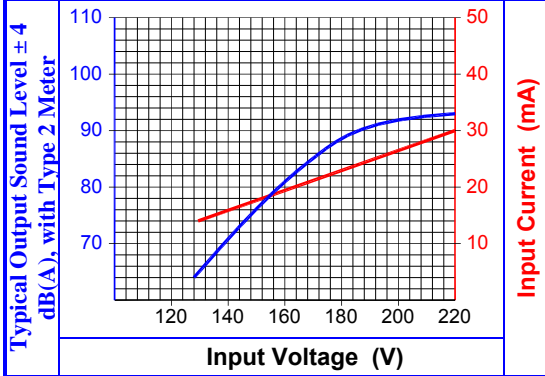
Revision: 4-2015



DESCRIPTION		FEATURES				
<b>Challenge Electronics CONTINUOUS Tone, MEDIUM Loud; 130 to 220 Vac; A style Rear Panel Mount case; Sound Pressure Level of 93 dB(A) at 220 Vac at 61 cm; 2,900 Hz. Output Frequency; S two 0.25" (6.4 mm) Blades with M3 0.25" (6.4 mm) long, Stainless Steel Screws termination; with a mechanical Volume Control RoHS Compliant</b>		<ul style="list-style-type: none"> <li>◆ Reliable Solid State Piezoelectric Technology</li> <li>◆ Corrosion resistant Stainless Steel Diaphragm</li> <li>◆ Flame Retardant Plastic</li> <li>◆ Extended storage temperature</li> <li>◆ Hermetically Sealed Alarm</li> <li>◆ Water Proof, NEMA 3R, 4X, or 12 with Gasket (not supplied)</li> <li>◆ RoHS, Lead Free Compliance</li> <li>◆ ISO 9001:2008 &amp; ISO-TS 16949:2009 Certified</li> </ul>				
SPECIFICATIONS						
Operating Mode	Medium Loud, Continuous Tone			Pulse Rate		
Operating Voltage	130 to 220 Vac	Nominal Operating Voltage	220 Vac	Operating Frequency	2,900 ± 500 Hz.	
Typical Loudness	At 130 Vac	70 ± 5 dB(A)	At 220 Vac	93 ± 4 dB(A)		
	SPL is measured at 24" (61 cm), 25°C, Sound Level meter # 2240, Type 2, Fast Response, A-Weighted					
Typical Operating Current	15 mA at 130 Vac		30 mA at 220 Vac			
Volume Control	Maximum Sound Pressure Level can be restricted up to 20 dB from maximum output. (Note, The Volume Control Rotor may reduce maximum loudness) To install, simply, push the ROTOR onto the front of alarm until it snapped in place To attenuate sound, while alarm is turned on, rotate the ROTOR until maximum desired sound is achieved					
Operating Temperature	-30°C to +65°C	Storage Temperature	-40°C to +100°C			
Surge Voltage	20% over maximum Operating Voltage for less than 5 minutes					
Materials	Alarm Case	Plastic, "A" Case, NORYL™, PX9406 or equal, flame retardant UL 94-V0, Black				
	Diaphragm	Stainless Steel 304				
	Encapsulation	Silicon Potting covering SMD components topped with 2 parts epoxy potting, Black				
	Termination	Two, 0.25 (6.4 mm) Quick Connect Blades, 0.032Ø (0.8Ø mm) Wide, Brass, Electro-Tin plated With M3 0.25" (6.4 mm) long Stainless Steel Screws.				
Physical Dimensions	Diameter	1.41" (35.8 mm) Ø	Width		Height	1.46" (37.1 mm)
Panel Mounting	From the Rear with Plastic Ring Nut	Mounting Hole	1.125" (28.6mm) Ø	Max. Panel Thickness	0.25" (6.3mm)	
Approximate Weight	39 grams	Rotor Volume Control	Yes	Compliance	RoHS	
Available Options	Water Proof Gasket, Mounting Bracket, and variety of connectors terminated on the Wire Lead ends					
RELIABILITY						
Thermal Operating Temperature Test	96 hours continuous operation at Rated Voltage, at Maximum Rated Operating Temperature *					
	96 hours continuous operation at Rated Voltage, at Minimum Rated Operating Temperature *					
Thermal Storage Temperature Test	96 hours storage at Maximum Rated Storage Temperatures *					
	96 hours storage at Minimum Rated Storage Temperatures *					
Thermal Shock Test	5 cycles of Minimum and Maximum Operating Temperature Each cycle shall be set per diagram below and is 3 hours long *					
Humidity Test	120 Hours at +60°C±2°C. 90-95% RH *					
Salt Spray	Withstand exposure to salt spray per ASTM B117 for a period of 300 hours *					
Water & Dust Exposure	Withstands water submergence and dust exposure per IP-68 *					
Vibration Test	2 Hours at 1.5 mm with 10 to 55 Hz. of vibration frequency to each of 3 perpendicular direction *					
Drop Test	Dropped naturally from 1 meter height onto the surface of 10mm wooden board, 2 directions upper and side of the part are applied *					
Termination Strength	Maximum of 15 pounds (6.8 Kg) load pull test and of 4 lb. per inch driving torque on screw					
* Reliability Test Performance	Parts should conform to original performance within ±3 dB, after 3 hours of recovery and dry period					
Life Test	Intermittent	1,000 hours of a 1 minute on 4 minutes off cycle at room temperature and maximum rated Voltage				
	Continuous	250 hours continuous operation at room temperature and maximum rated Voltage				
Warranty	For a period of two (2) years from date of shipping under normal operations conditions This warranty does not apply to products damaged through misuse, abuse, improper installation, alteration, rework, or attempt to repair					



<b>Current Draw and Loudness Vs. Input Voltage</b>	<b>DIMENSIONS</b>	<b>Units</b>	<b>Inches</b>	<b>Tolerance</b>	<b>0.030</b>
			<b>(mm)</b>		<b>(0.7)</b>



**ALARM MAKING**      **TYPICAL MOUNTING**

<b>On side Case:</b>	<b>Part Number</b> <b>Sound Type</b> <b>Operating Voltage Range / Date Code</b> <b>Challenge Electronics</b> <b>Made in China</b>	Ring Nut	Mounting Panel	Gasket Optional	Alarm Side View
<b>On Back:</b>	<b>Polarity Identification (when Required)</b>				

**SUBSTANCE OF VERY HIGH CONCERN (REACH) and RoHS LEAD FREE COMPLIANCE**

This product does NOT contain any of the REACH Substances of Very High Concern (SVHC), and is in compliance with European Union REACH Regulation No.1907/2006 regarding chemical substances which must be registered or disclosed.

Cadmium (Cd) / Cadmium Compounds	≤ 100 ppm	<b>In compliance</b>	Poly Brominated Biphenyls (PBB)	≤ 1,000 ppm	<b>In compliance</b>
Lead (Pb) / Lead Compounds	≤ 1,000 ppm	<b>≤ 10,000 ppm (*)</b>	Poly Brominated Diphenyl Ethers (PBDE)	≤ 1,000 ppm	<b>In compliance</b>
Mercury (Hg) / Mercury Compounds	≤ 1,000 ppm	<b>In compliance</b>	Arsenic (As)	≤ 1,000 ppm	<b>In compliance</b>
Hexavalent-Chromium (Cr6+)	≤ 1,000 ppm	<b>In compliance</b>			

(\*) European Union Directive 2011/65/EU (RoHS Directive) of the European Parliament. And of the Council of 8 June 2011 and all subsequent amendments, The ANNEX III of the Directive Applications exempted from the restriction in Article 4(1): 7(c)-I, Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. Piezoelectric devices, or in a glass or ceramic matrix compound Piezoelectric is also known as Lead Zirconate Titanate (PZT) ceramics. Piezoelectric Ceramic disc, (PZT), lead as high covalent compound in the ceramic matrix to achieve good ferroelectric properties in a wide temperature range. The best-known performances can be reached with PZT ceramics, which are a mixture of PbTiO3 and PbZrO3. The lead content, homogeneous material compound is between 58% and 68% by weight depending on the proportion of zirconium (Zr) and titanium (Ti).

**PACKAGING**

Shipping Box MARKING		TRAY			
Part Number	Dimensions	L	34.7 cm		
Other PN (if required)		W	34.7 cm		
Lot and/or Date Code		H	21.2 cm		
Quantity	Quantity	47			
PO Number	SHIPPING BOX				
Net Weight				L	35 cm
Gross Weight				W	35 cm
Box Number of Boxes	H	22.5 cm			
Made in China	Number of Trays	5			
	Quantity	250			
	Approximate Weight	9 Kg.			

Revision	Description	By	Date
3-2013	Changed SPL and Frequency Response	Ely Zofan	8/1/2013
4-2015	Added SubstanceE of Very High Concern & RoHS Compliance, and Extended the warranty period	Ely Zofan	2/25/2015