



PRODUCT INFORMATION

Part #: **CE-BCX515AVQF**

Revision: 4-2015



DESCRIPTION		FEATURES	
<p>Challenge Electronics Dual-Function BEEPING or CONTINUOUS Tones, EXTRA Loud, 5 to 15 Vdc, A style case Rear Panel Mounting in 1.125" (28.6 mm) Hole, Sound Pressure Level of 103 dB(A) at 15 Vdc at 61 cm, 2,900 Hz. Output Frequency, three Quick Connect Blades termination, Fast Rate 3 pulses per second, Piezoelectric Alarm with a mechanical Volume Control, RoHS Compliant</p>		<ul style="list-style-type: none"> ◆ Reliable Solid State Piezoelectric Technology ◆ Corrosion resistant Stainless Steel Diaphragm ◆ Flame Retardant Plastic ◆ Extended storage temperature ◆ Hermetically Sealed Alarm ◆ Water Proof, NEMA 3R, 4X, or 12 with Gasket (not supplied) ◆ RoHS, Lead Free Compliance ◆ ISO 9001:2008 & ISO-TS 16949:2009 Certified 	
SPECIFICATIONS			
Operating Mode	Extra Loud, Fast Intermittent or Continuous Tones	Pulse Rate	3 ± 10% Pulses per Second
Operating Voltage	5 to 15 Vdc	Nominal Operating Voltage	12 Vdc
	At 5 Vdc	90 ± 5 dB(A)	At 12 Vdc
Typical Loudness	SPL is measured at 24" (61 cm), 25°C, Sound Level meter # 2240, Type 2, Fast Response, A-Weighted		At 15 Vdc
Typical Operating Current	10 mA at 5 Vdc	35 mA at 12 Vdc	40 mA at 15 Vdc
Volume Control	<p>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</p>		
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		
Polarity Protection	Protected against Reversed Voltage to the Maximum Operating Voltage		
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	Three, 0.25 (6.4 mm) Quick Disconnect Blades, 0.032Ø (0.8Ø mm) wide, Brass, Electro-Tin plated	
Physical Dimensions	Length or Diameter (L/D)	1.46" (37.1 mm) Ø	Width (W)
Approximate Weight	41 grams	With Volume Control Rotor	Yes
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 Power, at Maximum Rated Operating Temperature *		
Thermal Storage Temperature Test	96 hours storage at Maximum 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 300 hours of exposure to salt spray per ASTM B117 *		
Water & Dust Exposure	Withstands 50 cm of 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 10 mm wooden board, 2 directions upper and side of the part are applied *		
Termination Strength	Maximum of 15 pounds (6.8 Kg) load pull test		
* Reliability Test Performance	Parts should conform to original performance within ±3dB, 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		



Current Draw and Loudness Vs. Input Voltage		DIMENSIONS		Units	Inches (mm)	Tolerance	0.030 (0.7)												
Typical Output Sound Level ± 4 dB(A), with Type 2 Meter																			
	Input Voltage (V)		1.125-24 UNF THREADS MAJOR D 1.118 MINOR D 1.074 PITCH D 1.094		Blades: Brass, Electro Tin Plated		MOUNTING HOLE-- 1.125" (28.6 mm) Diameter												
ALARM MAKING				TYPICAL MOUNTING															
On side Case:	Part Number Sound Type Operating Voltage Range / Date Code Challenge Electronics Made in China			Ring Nut	Mounting Panel	Gasket Optinal	Alarm Side View												
On Back:	Polarity Identification (when Required)																		
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	In compliance	Poly Brominated Biphenyls (PBB)	≤1,000 ppm	In compliance														
Lead (Pb) / Lead Compounds	≤1,000 ppm	≤ 10,000 ppm (*)	Poly Brominated Diphenyl Ethers (PBDE)	≤1,000 ppm	In compliance														
Mercury (Hg) / Mercury Compounds	≤1,000 ppm	In compliance	Arsenic (As)	≤1,000 ppm	In compliance														
Hexavalent-Chromium (Cr6+)	≤1,000 ppm	In compliance																	
(*) 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														
<table border="1"> <tr><td>PN</td><td></td></tr> <tr><td>Qty</td><td></td></tr> <tr><td>N.W</td><td></td></tr> <tr><td>G.W</td><td></td></tr> <tr><td>Size</td><td></td></tr> <tr><td>Lot #</td><td></td></tr> </table>			PN		Qty		N.W		G.W		Size		Lot #		Part Number		Dimensions	L	34.7 cm
PN																			
Qty																			
N.W																			
G.W																			
Size																			
Lot #																			
			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		Dimensions	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												
1-2007	Updated Specifications					Ely Zofan	1/30/2007												
2-2010	Changed formate					Ely Zofan	9/21/2010												
3-2012	Modified the Sound Pressure Specifications					Ely Zofan	5/14/2012												
4-2015	Added SubstanceE of Very High Concern & RoHS Compliance, and Extended the waranty period					Ely Zofan	1/14/2015												