



Challenge Electronics
95 East Jefryn Boulevard
Deer Park, NY 11729

Tel: 1-800-722-8197
1-631-595-2217
Fax: 1-631-667-5484

EMAIL: Sales@Challele.com
WEB: www.ChallengeElectronics.com
ISO 9001:2008; ISO-TS 16949:2009 Certified

PRODUCT INFORMATION

Part #: **CE-BCM530AWF**

Revision: 5-2014



DESCRIPTION		FEATURES				
Challenge Electronics Dual Function BEEP or CONTINUOUS Tone; MEDIUM Loud Piezoelectric Alarm; 5 to 30 Vdc; A style Rear Panel Mount case; Sound Pressure Level of 97 dB(A) at 30 Vdc at 61 cm; 2,900 Hz. Output Frequency; Wire Leads 5" Long termination; Fast Beep , 3 pulses per second Rate; RoHS Compliant		<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	Medium Loud, Fast Intermittent or Continuous Tones		Pulse Rate	3 ± 10% Pulses per Second		
Operating Voltage	5 to 30 Vdc	Nominal Operating Voltage	24 Vdc	Operating Frequency	2,900 ± 250 Hz.	
Typical Loudness	At 5 Vdc	84±5 dB(A)	At 24 Vdc	97±3 dB(A)	At 30 Vdc	97±3 dB(A)
	SPL is measured at 24" (61 cm), 25°C, Sound Level meter # 2240, Type 2, Fast Response, A-Weighted					
Typical Operating Current	5 mA at 5 Vdc		25 mA at 24 Vdc		30 mA at 30 Vdc	
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 (3) Wires Leads, 18 AWG (7X32), GXL Automotive, Copper, XPLE insulated, 5.0" (127) Long. Struck 0.235 (6.0mm), Red = Common Positive Black = Intermittent Negative, and Blue = Continuous Negative				
Physical Dimensions	Diameter	1.4" (35.6 mm) Ø	Width	Height	1.4" (35.7 mm)	
Panel Mounting	From the Rear with Plastic Ring Nut	Mounting Hole	1.125" (28.6mm) Ø	Max. Panel Thickness	0.25" (6.3 mm)	
Approximate Weight	37 grams	Rotor Volume Control	No	Compliance	RoHS	
Available Options	Rotor Volume Control, 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					
* 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 one (1) year 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)																																																								
ALARM MAKING				TYPICAL MOUNTING																																																											
<p>On side Case:</p> <p>Part Number Sound Type Operating Voltage Range / Date Code Challenge Electronics Made in China</p> <p>On Back:</p> <p>Polarity</p>				<table border="1"> <tr> <td>Alarm Threads:</td> <td>1.125-24 UNF Threads, 2A Class, Major 1.118" Ø, Minor 1.063" Ø, Pitch 1.094" Ø</td> </tr> <tr> <td>Ring Nut Threads:</td> <td>1.125-24 UNF Threads, 2B Class, Major 1.120" Ø, Minor 1.073" Ø, Pitch 1.094" Ø</td> </tr> <tr> <td>Mounting Hole:</td> <td>1.25" (31.75 mm) Ø</td> </tr> <tr> <td>Panel Thickness:</td> <td>0.03 (0.75 mm) to 0.25" (6.4 mm)</td> </tr> <tr> <td>Gasket (Optional):</td> <td>1.25" (31.75 mm) ID, 1.40" (35.6 mm) OD, 0.10" (2.54 mm) Thick Rubber,</td> </tr> </table>				Alarm Threads:	1.125-24 UNF Threads, 2A Class, Major 1.118" Ø, Minor 1.063" Ø, Pitch 1.094" Ø	Ring Nut Threads:	1.125-24 UNF Threads, 2B Class, Major 1.120" Ø, Minor 1.073" Ø, Pitch 1.094" Ø	Mounting Hole:	1.25" (31.75 mm) Ø	Panel Thickness:	0.03 (0.75 mm) to 0.25" (6.4 mm)	Gasket (Optional):	1.25" (31.75 mm) ID, 1.40" (35.6 mm) OD, 0.10" (2.54 mm) Thick Rubber,																																														
Alarm Threads:	1.125-24 UNF Threads, 2A Class, Major 1.118" Ø, Minor 1.063" Ø, Pitch 1.094" Ø																																																														
Ring Nut Threads:	1.125-24 UNF Threads, 2B Class, Major 1.120" Ø, Minor 1.073" Ø, Pitch 1.094" Ø																																																														
Mounting Hole:	1.25" (31.75 mm) Ø																																																														
Panel Thickness:	0.03 (0.75 mm) to 0.25" (6.4 mm)																																																														
Gasket (Optional):	1.25" (31.75 mm) ID, 1.40" (35.6 mm) OD, 0.10" (2.54 mm) Thick Rubber,																																																														
PACKAGING																																																															
<p>ONE TRAY:</p>		<p>TWO BUNDLE</p>		MARKING		TRAY																																																									
<p>ONE BUNDLE:</p>		<p>SHIPPING BOX</p>		<table border="1"> <tr> <td>Bundle</td> <td rowspan="3">Dimensions</td> <td>X1</td> <td>34.7 cm</td> </tr> <tr> <td>Part Number</td> <td>Y1</td> <td>34.7 cm</td> </tr> <tr> <td>Other PN if required</td> <td>Z1</td> <td>21.2 cm</td> </tr> <tr> <td>Quantity</td> <td>Quantity</td> <td colspan="2">42</td> </tr> <tr> <td>Lot and/or Date Code</td> <td colspan="3">BUNDLE</td> </tr> <tr> <td>Bundle Number</td> <td rowspan="3">Dimensions</td> <td>X2</td> <td>cm</td> </tr> <tr> <td>Shipping Box</td> <td>Y2</td> <td>cm</td> </tr> <tr> <td>Part Number</td> <td>Z2</td> <td>cm</td> </tr> <tr> <td>Other PN (if required)</td> <td>Quantity</td> <td colspan="2"></td> </tr> <tr> <td>Quantity</td> <td colspan="3">SHIPPING BOX</td> </tr> <tr> <td>Lot and/or Date Code</td> <td rowspan="3">Dimensions</td> <td>X3</td> <td>35 cm</td> </tr> <tr> <td>PO Number</td> <td>Y3</td> <td>35 cm</td> </tr> <tr> <td>Net Weight</td> <td>Z3</td> <td>22.5 cm</td> </tr> <tr> <td>Gross Weight</td> <td>Number of Bundles</td> <td colspan="2">1</td> </tr> <tr> <td>Box Number of Boxes</td> <td>Quantity</td> <td colspan="2">250</td> </tr> <tr> <td>Made in China</td> <td>Approximate Weight</td> <td colspan="2">9 Kg.</td> </tr> </table>		Bundle	Dimensions	X1	34.7 cm	Part Number	Y1	34.7 cm	Other PN if required	Z1	21.2 cm	Quantity	Quantity	42		Lot and/or Date Code	BUNDLE			Bundle Number	Dimensions	X2	cm	Shipping Box	Y2	cm	Part Number	Z2	cm	Other PN (if required)	Quantity			Quantity	SHIPPING BOX			Lot and/or Date Code	Dimensions	X3	35 cm	PO Number	Y3	35 cm	Net Weight	Z3	22.5 cm	Gross Weight	Number of Bundles	1		Box Number of Boxes	Quantity	250		Made in China	Approximate Weight	9 Kg.	
Bundle	Dimensions	X1	34.7 cm																																																												
Part Number		Y1	34.7 cm																																																												
Other PN if required		Z1	21.2 cm																																																												
Quantity	Quantity	42																																																													
Lot and/or Date Code	BUNDLE																																																														
Bundle Number	Dimensions	X2	cm																																																												
Shipping Box		Y2	cm																																																												
Part Number		Z2	cm																																																												
Other PN (if required)	Quantity																																																														
Quantity	SHIPPING BOX																																																														
Lot and/or Date Code	Dimensions	X3	35 cm																																																												
PO Number		Y3	35 cm																																																												
Net Weight		Z3	22.5 cm																																																												
Gross Weight	Number of Bundles	1																																																													
Box Number of Boxes	Quantity	250																																																													
Made in China	Approximate Weight	9 Kg.																																																													
Revision		Description		By		Date																																																									
3-2011		Modified Dimensions Drawing		Ely Zofan		5/10/2011																																																									
4-2012		Updated Specifications		Ely Zofan		12/17/2012																																																									
5-2014		Updated Specifications		Ely Zofan		6/18/2014																																																									