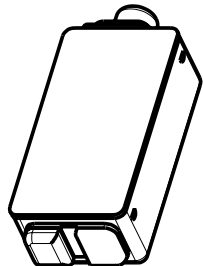
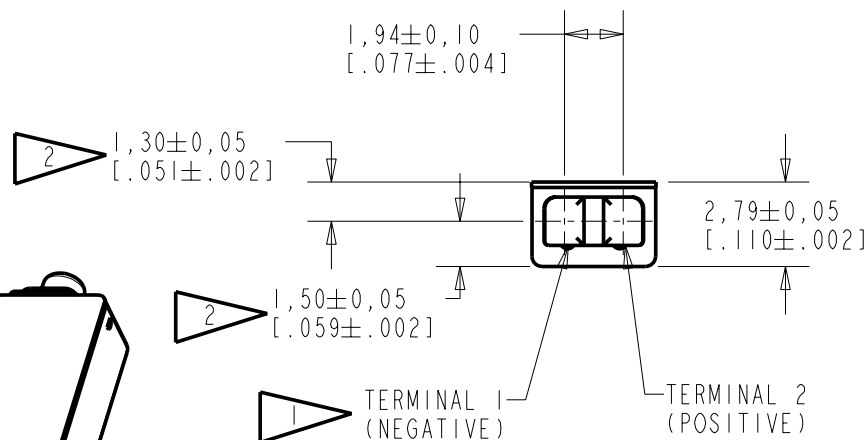
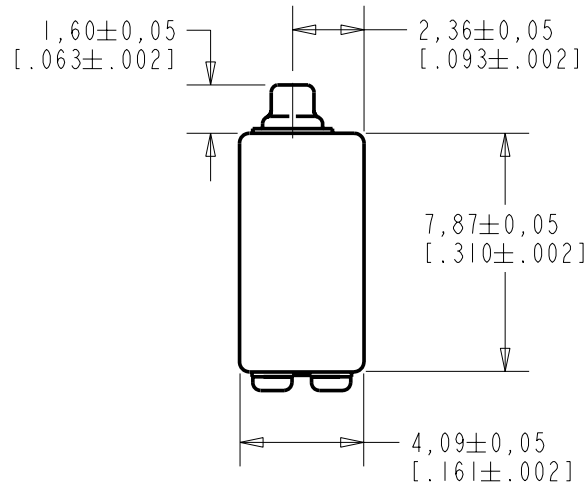


FTEC-30114-104

SHT 1.1

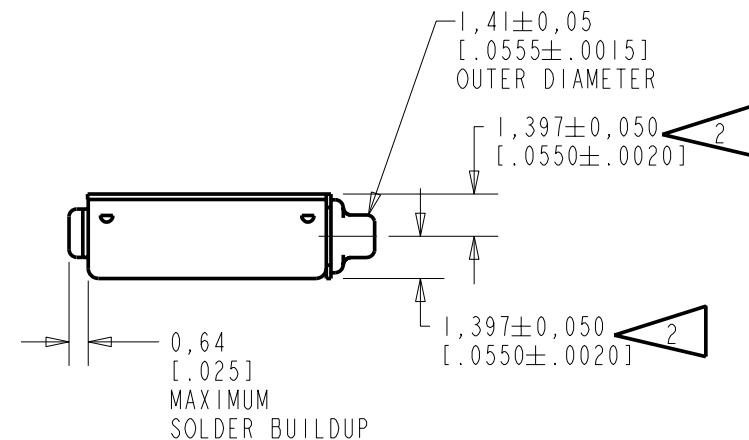
NOTES:

- 1 A POSITIVE GOING VOLTAGE AT TERMINAL 2, RELATIVE TO TERMINAL 1, CAUSES A DECREASE IN PRESSURE AT THE SOUND OUTLET.
- 2 LOCATED FROM TWO SURFACES FOR CUSTOMER CONVENIENCE. ONLY APPLICABLE FROM ONE SURFACE, NOT TO BE USED TOGETHER. HORIZONTAL LOCATION FOR TERMINAL CENTERED TO $\pm 0,17$ [0.007].



NOMINAL WEIGHT
.35 GRAM

DIMENSIONS IN MILLIMETERS [INCHES]



RED CONTROLLED

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
B	C10107383	4-2-08	Active	B
A	C10105843	5-29-07		
SCALE: 4:1			DR. BY DATE	
DO NOT SCALE DRAWING			MMM 5-29-07	
TITLE: RECEIVER OUTLINE DRAWING			CK. BY DATE	
			GJP 5-30-07	
			APP. BY DATE	
			GJP 5-30-07	

KNOWLES ELECTRONICS
ITASCA, ILLINOIS U.S.A.

SHT 1.1

KE111ASIZE.FRM

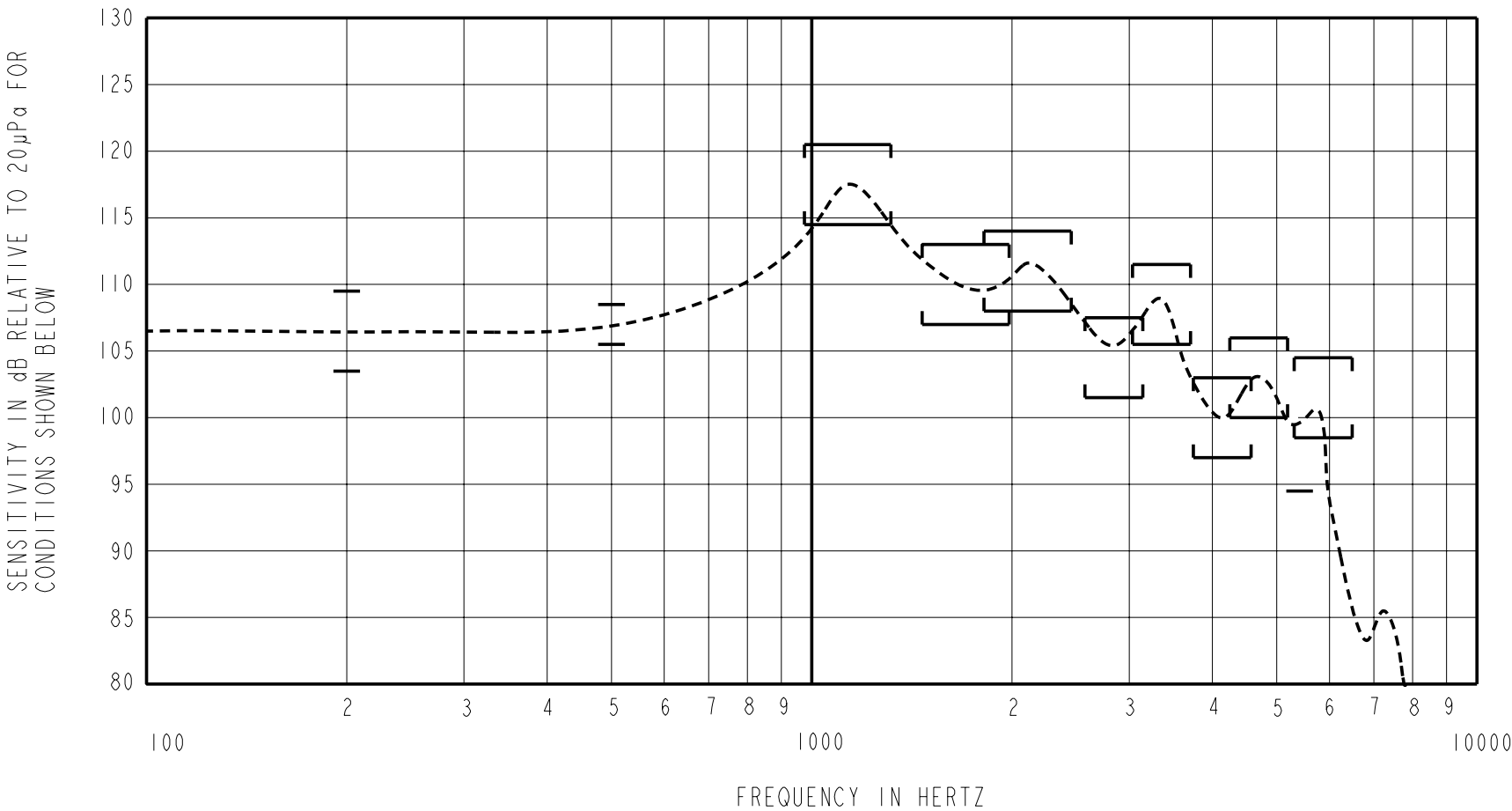
Rev: B

THE FTEC-30114-104 IS A FERROFLUID DAMPED RECEIVER. THE AMPLITUDE OF PEAK #2 OF THE RESPONSE CURVE IS +4 dB RELATIVE TO THE SENSITIVITY AT 500 Hz UNDER CONSTANT VOLTAGE DRIVE CONDITIONS. THIS UNIT IS A BALANCED ARMATURE RECEIVER INTENDED FOR USE IN BTE HEARING AIDS, AND IS 1/2 THE SIZE OF AN EF RECEIVER.

FERROFLUID DAMPED

FTEC-30114-104
SHEET 2.1

CONSTANT VOLTAGE DRIVE CONDITIONS



ACOUSTICAL

SENSITIVITY DEVICE WILL PRODUCE THE SPL LISTED BELOW UNDER TEST CONDITIONS DESCRIBED IN TABLE 3. NOMINAL SENSITIVITY AT 500 Hz IS dB RELATIVE TO 20µPa. ALL OTHER VALUES IN dB RELATIVE TO THE SENSITIVITY AT 500 Hz.

FREQUENCY (Hz)	MINIMUM	NOMINAL	MAXIMUM
200	-3.5	-0.5	+2.5
500	-1.5	107.0	+1.5
975-1315	+7.5	+10.5	+13.5
1465-1980	0	+3.0	+6.0
1815-2455	+1.0	+4.0	+7.0
2575-3145	-5.5	-2.5	+0.5
3035-3710	-1.5	1.5	+4.5
3745-4575	-10.0	-7.0	-4.0
4250-5190	-7	-4	-1
5412	-12.5	- - -	- - -
5310-6490	-8.5	-5.5	-2.5

TABLE 1

TOTAL HARMONIC DISTORTION DEVICE WILL NOT EXCEED TOTAL HARMONIC DISTORTION LEVELS LISTED BELOW.

FREQUENCY (Hz)	AC DRIVE (V rms)	DC BIAS (mA)	LIMIT (%)
382	0.109	0	5
573	0.109	0	5
573	0.218	0	10

TABLE 2

TEST CONDITIONS

NOMINAL SOURCE VOLTAGE	0.109 V rms, TO DELIVER 0.35 mVA AT 500 Hz
SOURCE IMPEDANCE	<1 Ohm
TUBING	8mm X 1mm ID + 28mm X 1.5mm ID EAR HOOK SIMULATOR + 25mm X 2mm ID TUBE + 18mm X 3mm ID TUBE
COUPLER CAVITY	2 cm ³ , SIMULATED ANSI S3.7 TYPE HA-3 (IEC 126)

TABLE 3

ELECTRICAL

DC RESISTANCE	22 OHMS ± 10%
IMPEDANCE @ 500 Hz	30 OHMS ± 15%
INDUCTANCE @ 500 Hz	7.2 mH ± 15%
CAPACITANCE @ 10 MHz	9.0 pF ± 20%

TABLE 4

ISOLATION: CASE WILL BE ELECTRICALLY ISOLATED FROM THE COIL CIRCUIT.

RED CONTROLLED

MECHANICAL

PORT LOCATION: IIS

SOLDER TYPE: SAC305

TEMPERATURE

OPERATING RANGE FROM 0°C TO 63°C (SENSITIVITY WILL NOT VARY BY MORE THAN ±3 dB WITHIN RANGE SENSITIVITY AT 0°C IS 2 dB LOWER THAN THE SENSITIVITY AT ROOM TEMPERATURE. DELTA PEAK IS 1 dB HIGHER AT BODY TEMPERATURE (37°C) STORAGE RANGE FROM -40°C TO 63°C

KNOWLES ELECTRONICS
ITASCA, ILLINOIS U.S.A.

Revision	C.O. #	Implementation Date	RELEASE LEVEL		REVISION
B	C10107383	4-2-08	Active		B
A	C10105843	5-29-07			
WHEN TEST LIMITS ARE USED TO ESTABLISH INCOMING INSPECTION ACCEPTANCE/REJECTION CRITERIA, CORRELATION OF TEST EQUIPMENT WITH KNOWLES IS ALSO REQUIRED FOR ELIMINATION OF EQUIPMENT AND TEST METHOD VARIATION			DR. BY	DATE	
			MMM	5-29-07	
			CK. BY	DATE	
			GJP	5-30-07	
			APP. BY	DATE	
			GJP	5-30-07	

RECEIVER

FTEC-30114-104

PERFORMANCE SPECIFICATION

SHT 2.1

PROPRIETARY NOTE: THIS DOCUMENT CONTAINS INFORMATION WHICH IS THE PROPRIETARY PROPERTY OF KNOWLES ELECTRONICS, LLC. OR ITS AFFILIATED ENTITIES. IT IS ISSUED IN STRICT CONFIDENCE AND SHALL NOT BE REPRODUCED, COPIED, USED, OR DISCLOSED TO ANY THIRD PARTY PARTIALLY OR WHOLLY IN ANY MANNER WITHOUT PRIOR WRITTEN PERMISSION OF, AND MUST BE RETURNED UPON REQUEST BY, KNOWLES ELECTRONICS, LLC.

3

2

1


FTEC-30114-104

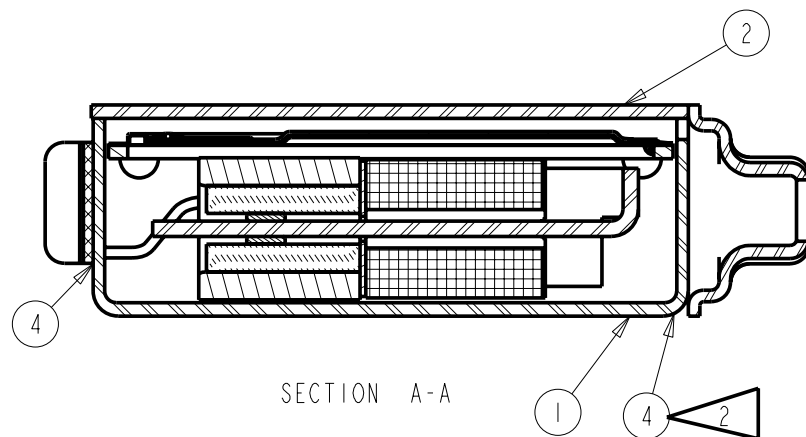
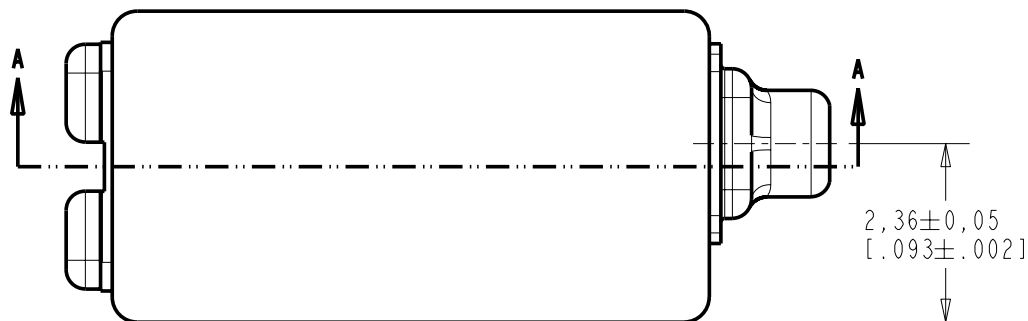
NOTES:

1. ITEM NUMBERS (SHOWN THUS ) ON DRAWING CORRESPOND WITH ITEM NUMBERS ON BILL OF MATERIAL.

 AIRTIGHT SEAL ALL AROUND.

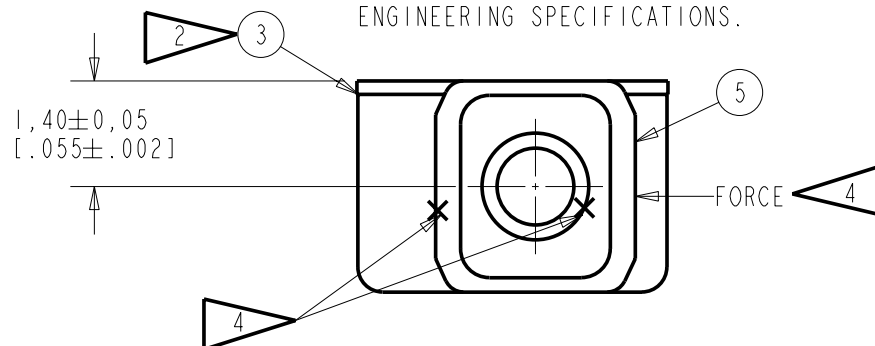
3. COVER WELD REQUIREMENTS STATED ON SHEET 3.2.

 WELD ITEM (5) TO ITEM (1) AT LOCATIONS SHOWN. MINIMUM TUBE WELD STRENGTH IN DIRECTION SHOWN MUST MEET PRODUCT ENGINEERING SPECIFICATIONS.



SECTION A-A

DIMENSIONS IN MILLIMETERS [INCHES]



RELEASE LEVEL	REVISION
Active	B

MATERIAL SEE BILL OF MATERIAL

FINISH ---

SCALE: 10:1

DO NOT SCALE DRAWING

RED CONTROLLED

KNOWLES ELECTRONICS
ITASCA, ILLINOIS U.S.A.

DR. BY	DATE
MMM	5-29-07
CH. BY	DATE
GJP	5-30-07
APP. BY	DATE
GJP	5-30-07

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES.

THIRD ANGLE PROJECTION



TITLE

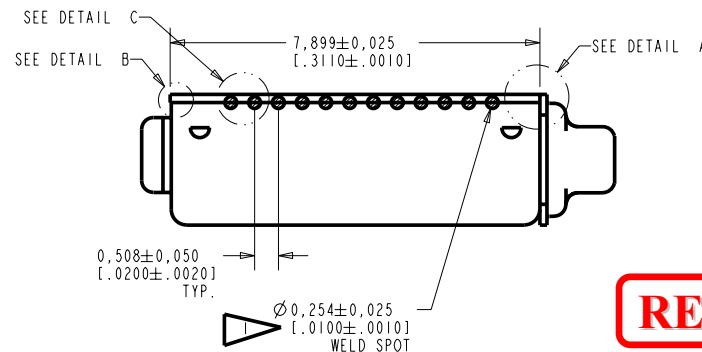
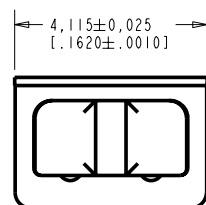
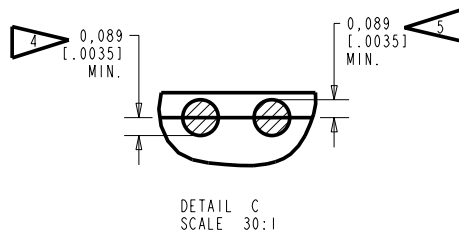
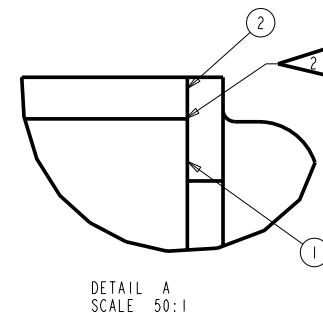
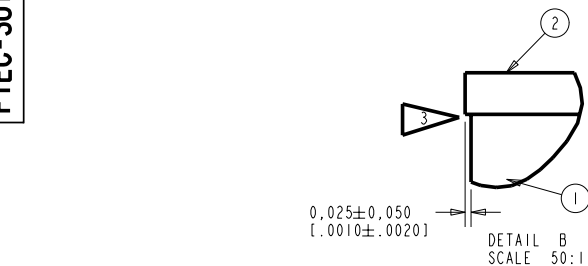
RECEIVER
ASSEMBLY

FTEC-30114-104

SHEET 3.1

PROPRIETARY NOTE: THIS DOCUMENT CONTAINS INFORMATION WHICH IS THE PROPRIETARY PROPERTY OF KNOWLES ELECTRONICS, LLC. OR ITS AFFILIATED ENTITIES. IT IS ISSUED FOR THE EXCLUSIVE USE OF THE RECIPIENT AND IS NOT TO BE REPRODUCED, COPIED, OR ANY THIRD PARTY PARTIAL OR WHOLLY IN ANY MANNER WITHOUT PRIOR WRITTEN PERMISSION OF, AND MUST BE RETURNED UPON REQUEST BY, KNOWLES ELECTRONICS, LLC.

FTEC-30114-104



RED CONTROLLED

NOTES:

- 1 DRAWING DEPICTS COVER WELD. WELD ITEM (2) TO ITEM (1) 12 WELDS PER SIDE. WELD PENETRATION DEPTH 0.064±0.025 [0.0025±0.0010] MEASURED AT CUP-TO-COVER SEAM. RE-WELD REWORK NOT PERMITTED. 0.008 [0.0003] MAX. SEAM GAP PERMITTED ALL AROUND BEFORE SEALING.
- 2 ITEM (2) MUST NOT EXTEND BEYOND ITEM (1) ON SURFACE WITH ACOUSTIC OUTLET SLOT.
- 3 ITEM (2) PERMITTED TO EXTEND BEYOND ITEM (1) AS DIMENSIONED ON SURFACE WITH TERMINAL PAD.
- 4 MINIMUM WELD SPOT OVERLAP ON CUP.
- 5 MINIMUM WELD SPOT OVERLAP ON COVER.

DIMENSIONS IN MILLIMETERS [INCHES]

MATERIAL SEE BILL OF MATERIAL				FINISH ---		RELEASE LEVEL		REVISION	
						Active		B	
						SCALE: 10:1		DO NOT SCALE DRAWING	
						DR. BY DATE		MM 5-29-07	
						CH. BY DATE		GJP 5-30-07	
						APP. BY DATE		GJP 5-30-07	
						TITLE		FTEC-30114-104	
						RECEIVER ASSEMBLY		SHEET 3.1	
								REV: B	



FTEC-30114-104			KNOWLES ELECTRONICS			FTEC-30114-104		
Sheet 4.1			ITASCA, ILLINOIS U.S.A.			Sheet 4.1		
By Date			Subject:			Revision		
Dr. MMM 5-29-07			RECEIVER ASSEMBLY			B		
Ch. GJP 5-30-07								
App. GJP 5-30-07								
COL. 1			2		3		4	
Part or Dwg. no.			Tot. Req.		Nomenclature:		Applicable Specs or Remarks	
FTEC-102-400			1		MOTOR, CUP, FERROFLUID & DIAPHRAGM ASSEMBLY			
TEC-015			1		FLAT COVER			
13-092-130101			A/R		CEMENT			
13-092-130203			A/R		CEMENT			
TEC-018			1		TUBE ASSEMBLY			

RED CONTROLLED

REVISION	A	c.o.	C10105843
	B	c.o.	C10107383
	EDITED SHEET 2.1		
	SJ 4-2-08		

FTEC-30114-104
Sheet 4.1

PROPRIETARY NOTE: THIS DOCUMENT CONTAINS INFORMATION WHICH IS THE PROPRIETARY PROPERTY OF KNOWLES ELECTRONICS, LLC. OR ITS AFFILIATED ENTITIES. IT IS ISSUED IN STRICT CONFIDENCE AND SHALL NOT BE REPRODUCED, COPIED, USED, OR DISCLOSED TO ANY THIRD PARTY PARTIALLY OR WHOLLY IN ANY MANNER WITHOUT PRIOR WRITTEN PERMISSION OF, AND MUST BE RETURNED UPON REQUEST BY, KNOWLES ELECTRONICS, LLC.

REF: 0

PRODUCTION TEST INFORMATION

SOFTWARE REVISION PCI/GPIB FCART	SOFTWARE 4.13 MIN.
HARDWARE REVISION PCI FCART	KE 1065D.004 MIN.
HARDWARE REVISION GPIB FCART	KE 1065C.008G MIN.

RED CONTROLLED

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Knowles:

FTEC-30114-I04