

APPLICATION		REVISIONS			
NEXT ASSY	USED ON	REV	DESCRIPTION	DATE	APPROVED
268-0003-004-000		NC	FORMAL RELEASE PER EO 74012	2-15-05	KP
		A	SEE EO 74301	7-7-05	KP
		B	SEE EO 74455	9-15-05	KP
		C	SEE EO 74574	10-6-05	KP
		D	SEE EO 74671	10-27-05	KP
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		F	SEE EO 75569	8-21-06	KP
		G	SEE EO 76135	2-16-07	KP
		H	SEE EO 76975	12-6-07	KP
		J	SEE EO 77552	4-18-08	KP
		K	SEE EO 77659	5-21-08	K.E.

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PRODUCT CONTROL DRAWING

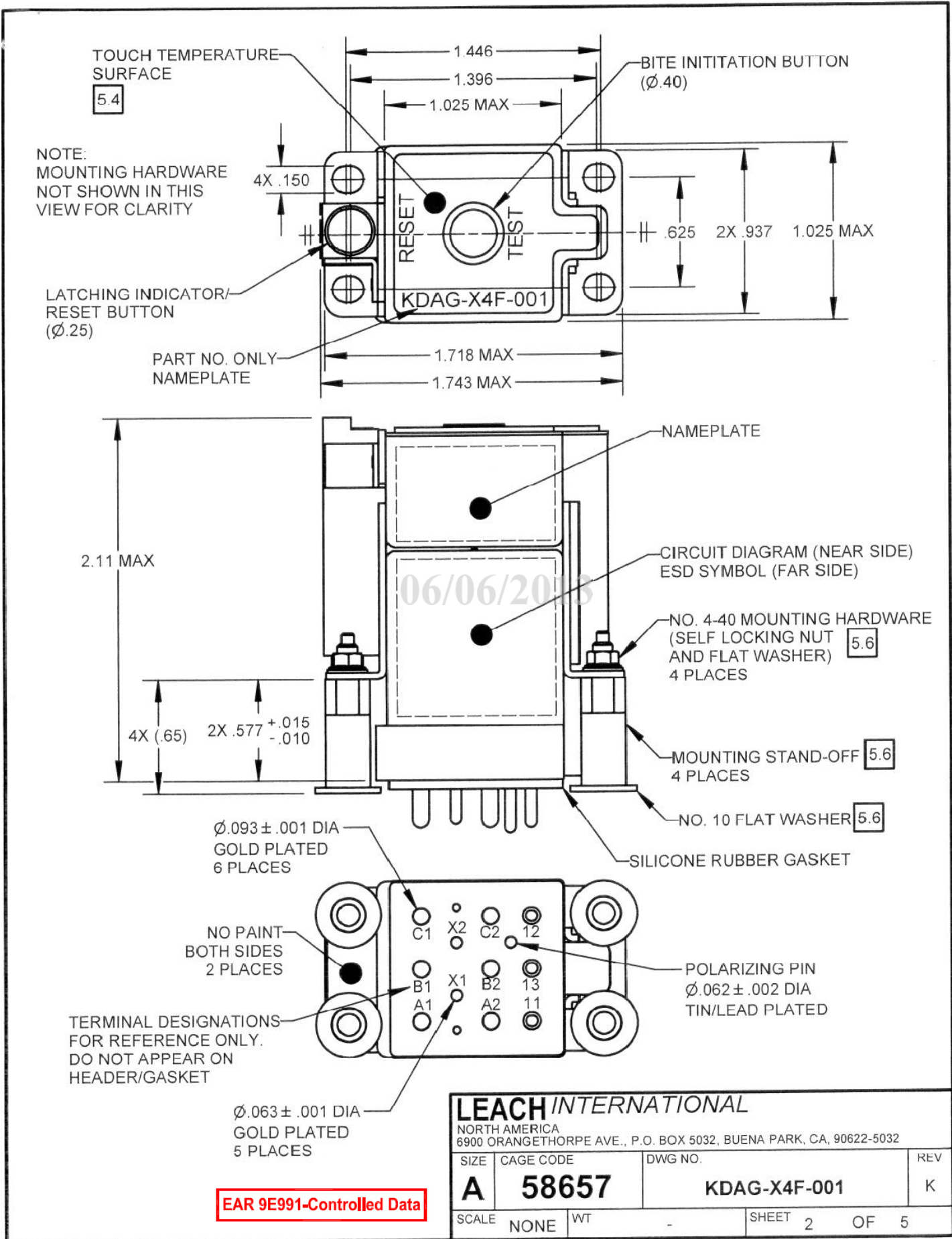
(PCD)13

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FAA/PMA
CONFIGURATION CONTROL

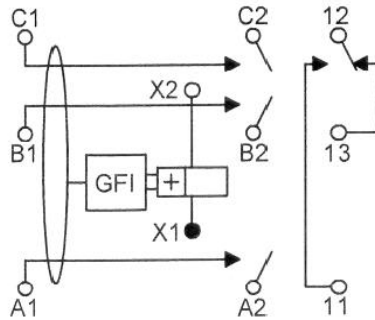
CONFIGURATION CONTROL
DRAWING
Check Before Processing
E.O. Changes

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOL ANGLES ± 1° DEC .XX ± .03 .XXX ± .010	DRAWN 1-8-04	EDDIE KOLESAR		LEACH INTERNATIONAL NORTH AMERICA 6900 ORANGETHORPE AVE., P.O. BOX 5032, BUENA PARK, CA, 90622-5032			
	CHK	V. EFROS	7-17-06				TITLE
MATERIAL	ENGR	EDDIE		RELAY, GROUND FAULT INTERRUPTER, 3PST/AUXILIARY, 25 AMP, 115 VAC 400 Hz COIL			
	PROJ	R. LOWE	7-17-06				
FINISH PARA 5.2	Q.A.	M. LANGLEY	7-18-06	SIZE	CAGE CODE	DWG NO.	REV
	MFG.	J. LIANG	7-17-06	A	58657	KDAG-X4F-001	K
	ENGR MGR	F. MA	7-18-06	SCALE	-	WT	PARA 5.1
				SHEET	1	OF	5



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LEACH INTERNATIONAL			
NORTH AMERICA 6900 ORANGETHORPE AVE., P.O. BOX 5032, BUENA PARK, CA, 90622-5032			
SIZE	CAGE CODE	DWG NO.	REV
A	58657	KDAG-X4F-001	K
SCALE	NONE	WT	-
SHEET 2		OF 5	



CIRCUIT DIAGRAM

MFR 58657 - YYWW
(YY: YEAR, WW: WEEK)

06/06/2013

SNXXXXX
(5 DIGIT)

LEACH INTERNATIONAL
NORTH AMERICA
RELAY, GROUND FAULT INTERRUPTER
MAIN CONTACTS: 3PST-N.O., 25 AMP
115/200 VAC, 400 Hz
AUX CONTACTS: SPDT, 2 AMP
28 VDC OR 115 VAC, 400 Hz
COIL 115 VAC, 400 Hz
LEACH PART NO.: KDAG-X4F-001
BOEING PART NO.: S283A004-5



ESD SYMBOL

MARKINGS

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SIZE	CAGE CODE	DWG NO.	REV
A	58657	KDAG-X4F-001	K
SCALE	WT	SHEET	OF
-	-	3	5

DETAIL SPECIFICATIONS

1.0	COIL DATA		
1.1	OPERATING VOLTAGE		
	1.1.1 NOMINAL OPERATING VOLTAGE	115 VAC	
	1.1.2 NORMAL OPERATING VOLTAGE RANGE	95 VAC - 124 VAC	
1.2	MAXIMUM PICK UP VOLTAGE		
	1.2.1 OVER THE TEMPERATURE RANGE WITH COLD COIL	95 VAC	
	1.2.2 OVER THE TEMPERATURE RANGE WITH HOT COIL	100 VAC	
	1.2.3 OVER THE TEMPERATURE RANGE WITH HOT COIL AND CARRYING CONTINUOUS RATED CURRENT	108 VAC	
1.3	DROP OUT VOLTAGE	12 TO 36 VAC	
1.4	COIL CURRENT:		
	1.4.1 MAXIMUM COIL CURRENT	.050A (OVER TEMPERATURE RANGE WITH NOMINAL CONTROL VOLTAGE APPLIED)	
	1.4.2 MINIMUM COIL CURRENT	.027A (BETWEEN 20 °C AND 35 °C WITH NOMINAL CONTROL VOLTAGE APPLIED)	
1.5	OPERATE TIME @ 115 VAC	45 MILLISECONDS MAXIMUM	
1.6	RELEASE TIME @ 115 VAC	50 MILLISECONDS MAXIMUM	
1.7	BOUNCE	MAIN: 1 MILLISECOND MAXIMUM AUX: 4 MILLISECONDS MAXIMUM	
1.8	DUTY CYCLE	CONTINUOUS	
2.0	CONTACT DATA	<u>MAIN</u>	<u>AUX</u>
2.1	CONFIGURATION	3 PST	1 PDT
2.2	RATED LOAD AT	115 VAC, 400 Hz	
2.3	RESISTIVE	25 AMP	2 AMP
2.4	MOTOR	15 AMP	
2.5	RUPTURE	100 AMP	
2.6	MAXIMUM CONTACT VOLTAGE DROP	150 MV INITIAL 175 MV AFTER START OF LIFE TESTS	
2.7	LIFE		
	2.7.1 ELECTRICAL	50,000 CYCLES MINIMUM	
	2.7.2 MECHANICAL	100,000 CYCLES MINIMUM	
3.0	GROUND FAULT INTERRUPTER DATA		
3.1	CURRENT THRESHOLD	3.0 ± .5 AMP RMS	
3.2	INTERRUPTER TRIP TIME @ 5X THRESHOLD	10 MILLISECONDS MAXIMUM	
3.3	DETECTION TIME THRESHOLD MINIMUM	.4 MILLISECOND	
3.4	DETECTION TIME THRESHOLD MAXIMUM	½ CYCLE	
3.5	MAXIMUM GROUND FAULT CURRENT	340 AMP RMS	

06/06/2013

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A	58657	KDAG-X4F-001	K
SCALE	WT	SHEET	OF
-	-	4	5

4.0	ENVIRONMENTAL DATA		
4.1	TEMPERATURE RANGE	-15 °C TO +70 °C	
4.2	ALTITUDE	25,000 FEET MAXIMUM	
4.3	VIBRATION/SHOCK/ACCELERATION	PER LEACH SPEC 550-0573-000-000	
4.4	DIELECTRIC STRENGTH:	<u>MAIN</u>	<u>AUX</u> <u>COIL</u> (X1 & X2 TO CASE)
	4.4.1 SEA LEVEL	1,250 VRMS	1,250 VRMS 500 VRMS
	4.4.2 AFTER LIFE	1,000 VRMS	1,000 VRMS 500 VRMS
4.5	INSULATION RESISTANCE AT 500 VDC	100 MEGOHMS MINIMUM	
4.6	ENVIRONMENTAL STRESS SCREENING	LEACH SPEC 550-0557-000-000	

5.0	PHYSICAL DATA		
5.1	WEIGHT	.30 LB MAXIMUM (EXCLUDING MOUNTING HARDWARE)	
5.2	FINISH	POLYURETHANE PAINT OVER EPOXY PRIMER, LUSTERLESS AIRCRAFT BLACK	
5.3	CONSTRUCTION		
	5.3.1 RELAY	HERMETICALLY SEALED	
	5.3.2 ELECTRONIC HOUSING	ENVIRONMENTALLY SEALED	

5.4 SPECIFIED SURFACE, INCLUDING INDICATOR/RESET PUSH BUTTON SHALL MEET BOEING SPECIFICATION S283A004, PARA 3.1.2.6.

5.5 MATING SOCKET
NOT SUPPLIED WITH RELAY LEACH PN: SO-1061-8916

5.6 MOUNTING HARDWARE KIT
SHIPPED WITH UNIT IN PLASTIC BAG LEACH PN: 002-9667-000-000

NUT, SELF-LOCKING, NO 4, CRES,
SILVER PLATED NAS1291C04M, QTY 4

WASHER, FLAT, NO. 4, CRES, PASSIVATED
SUPPLIED WITH HARDWARE KIT
USE OF WASHER IN INSTALLATION IS OPTIONAL NAS620C4L, QTY 4

MOUNTING SPACER, NO. 4-40 UNC-2A,
CRES, PASSIVATED LEACH PN: 002-9559-000-000, QTY 4

WASHER, FLAT, NO 10, CRES, PASSIVATED NAS620C10L, QTY 4

6.0	REFERENCE DOCUMENTS		
6.1	BOEING PART NUMBER: S283A004-5		
6.2	BOEING SPECIFICATION: S283A004		
6.3	ACCEPTANCE TEST PROCEDURE: 550-0573-000-000		

7.0	CONFIGURATION DEFINITION		
7.1	BASELINE RECORD: 501-0686-001		

8.0 APPLICATION NOTES

TO ENSURE CORRECT AND SAFE OPERATION OF THE GFI, THE RESISTANCE OF THE PATH FROM THE INSTALLED GFI MOUNTING BASE TO AN AIRCRAFT SAFETY GROUND SHALL BE LESS THAN 2.5 MILLI-OHMS.

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A	58657	KDAG-X4F-001	K
SCALE	WT	SHEET	OF
-	-	5	5