

TECHNICAL DATA

THE AP9116 IS A 28 VDC POWERED, AUTOMATED VOICE ALERT DEVICE, WHICH PROVIDES AUDIO ALERT MESSAGES AND WARNING TONES FOR USE WITH THE AIRCRAFT AUDIO SYSTEM

THE AP9116 HAS 10 DISCRETE INPUTS, AND ARINC-429 INPUT, 2 AUDIO OUTPUTS AND A DISCRETE OUTPUT

GENERAL SPECIFICATION

POWER REQUIREMENTS: 28 VDC, (2.8W MAX)

WEIGHT: 0.550 kg MAX

TEMPERATURE:

OPERATING TEMPERATURE -20 TO +55 DEGREES C  
 STORAGE TEMPERATURE -55 TO +85 DEGREES C  
 SHORT DURATION HIGH OPERATING TEMPERATURE +70 DEGREES C

PRODUCT SPECIFICATION

AP9116-PS-R4

INTERFACE CONTROL DOCUMENT (ICD)

AP9116-ICD-R4

SOFTWARE

SOFTWARE DEVELOPMENT IN ACCORDANCE WITH THE REQUIREMENTS OF DO-178B LEVEL E

COOLING

FREE AIR CONVECTION

PRODUCT REVISION IDENTIFICATION

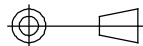
THE PRODUCT FOR WHICH THIS DOCUMENT RELATES SHALL BE IDENTIFIED WITH THE MAJOR REVISION NUMBER ONLY.

FOR EXAMPLE

DOCUMENT REVISION 2.03 REFERS TO PRODUCT REVISION 2

MINOR REVISIONS ARE RESERVED FOR DOCUMENTATION UPDATES THAT DO NOT AFFECT FORM FIT OR FUNCTION OF THE PRODUCT.

THIRD ANGLE PROJECTION TO B.S. 8888.  
 FOR GENERAL TOLERANCES & FINISHES  
 SEE NGINITY STANDARD NCPO01.



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APPROVED CHECKED	MATERIAL:- PRINCIPALLY ALUMINIUM ALLOY	FINISH:- ALOCROM & BLACK POWDER COAT	TOLERANCES .XX +/-0.75 .XXX +/-0.25	ISSUE DATE	1 05.07.06	2 02.10.06	3 05.11.06	4 20.02.08										
DRAWN PDC			SCALE: 1:1 DIMS: MM	TITLE AUTOMATED VOICE ALERTING DEVICE	DRAWING NUMBER AP9116MK				SHEET 1 OF 2				SIZE A2					

ELECTRICAL CONNECTIONS

PIN	CONNECTION	STATUS
1	+28VDC	+28 V POWER
2	OVDC	OV POWER
3	CHASSIS GROUND	CHASSIS GROUND
4	DIGITAL GROUND	DIGITAL GROUND
5	ANALOGUE GROUND	AUDIO INPUT LO
6	DISCRETE INPUT 1	WEIGHT ON WHEELS I/P (NOTE 1)
7	DISCRETE INPUT 2	SELF TEST INPUT (NOTE 1)
8	DISCRETE INPUT 3	MAINTENANCE MODE
9	DISCRETE INPUT 4	MUTE INPUT
10	DISCRETE OUTPUT	SYSTEM VALID (ACTIVE OV)
11	SERIAL PORT 0 TX	RS-232 TX (NOTE 2)
12	SERIAL PORT 0 TX	RS-232 RX (NOTE 2)
13	SERIAL PORT 1 RX A (HI)	ARINC-429 INPUT A (HI) (NOTE-5)
14	SERIAL PORT 1 RX B (LO)	ARINC-429 INPUT B (LO) (NOTE 5)
15	RESERVED)	NOT CONNECTED
16	RESERVED	NOT CONNECTED
17	RESERVED	NOT CONNECTED
18	RESERVED	NOT CONNECTED
19	RESERVED	NOT CONNECTED
20	RESERVED	NOT CONNECTED
21	DISCRETE INPUT 5	MESSAGE ENABLE #1 (NOTE 3)
22	DISCRETE INPUT 6	MESSAGE ENABLE #2 (NOTE 3)
23	DISCRETE INPUT 7	MESSAGE ENABLE #3 (NOTE 3)
24	DISCRETE INPUT 8	MESSAGE ENABLE #4 (NOTE 3)
25	DISCRETE INPUT 9	MESSAGE ENABLE #5 (NOTE 3)
26	DISCRETE INPUT 10	MESSAGE ENABLE #6 (NOTE 3)
27	DISCRETE INPUT 11	MESSAGE ENABLE #7 (NOTE 3)
28	DISCRETE INPUT 12	MESSAGE ENABLE #8 (NOTE 3 & NOTE 4)
29	AUDIO INPUT	AUDIO INPUT HI
30	AUDIO OUTPUT #1 LO	AUDIO OUTPUT #1 LO
31	AUDIO OUTPUT #1 HI	AUDIO OUTPUT #1 HI
32	AUDIO OUTPUT #2 LO	AUDIO OUTPUT #2 LO
33	AUDIO OUTPUT #2 HI	AUDIO OUTPUT #2 HI
34	RESERVED	NOT CONNECTED
35	RESERVED	NOT CONNECTED
36	RESERVED	NOT CONNECTED
37	RESERVED	NOT CONNECTED

CONFIGURATION

THE CONFIGURATION IN TERMS OF MESSAGE DEFINITION, MESSAGE SEQUENCING, DISCRETE INPUT CONFIGURATION AND ARINC-429 THRESHOLD LEVEL (100FT) SHOULD BE DEFINED AT TIME OF ORDERING USING NGINUITY FORM NCF016.

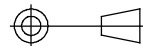
NOTE

- NOTE 1 CONNECT TO PIN 2 TO ACTIVATE
- NOTE 2 RESERVED FOR MANUFACTURING TEST
- NOTE 3 INPUT MAY BE CONFIGURED AS ACTIVE +28V OR ACTIVE OV, THIS SHOULD BE SPECIFIED AT TIME OF ORDER PLACEMENT
- NOTE 4 IF WEIGHT ON WHEELS (WOW) IS CONFIGURED MESSAGE ENABLE #8 IS NOT AVAILABLE
- NOTE 5 WITH RESPECT TO PIN 4

ALL INSTALLATION WIRES SHOULD BE SCREENED AND TERMINATED TO THE CONNECTOR BACKSHELL EXCEPT FOR POWER INPUT (PINS 1 & 2)

MK No.	NUMBER OF MESSAGES
3	3 + TEST MESSAGE
8	8 + TEST MESSAGE

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LJC				CHANGE	NEW	CRO0132	CR00135	CR00169													
DRAWN			SCALE: 1:1	TITLE AUTOMATED VOICE ALERTING DEVICE														DRAWING NUMBER			SIZE
PDC			DIMS: MM															AP9116MK			SHEET 2 OF 2