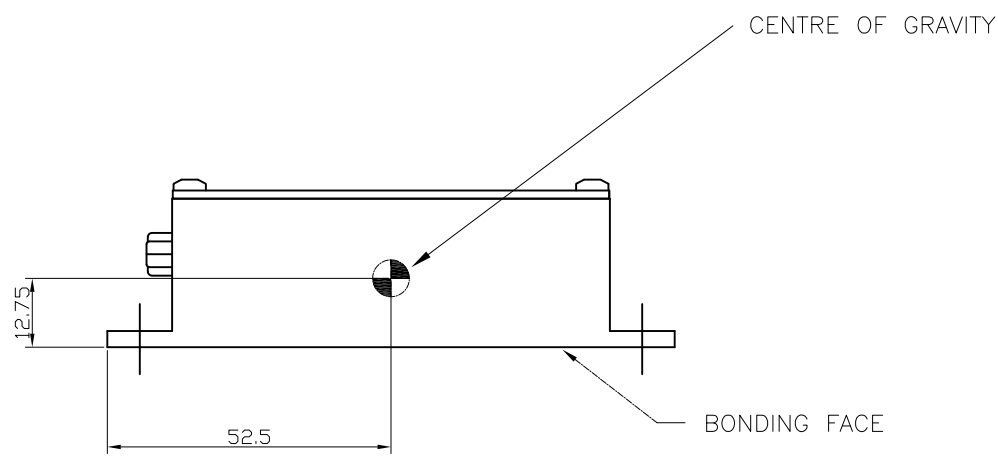


MATING ELECTRICAL PLUG
TYPE ITT CANNON
DAA15S-A197-F0



TECHNICAL DATA

THE IP5010 ARINC-429 TO NMEA-0183 CONVERTER MODULE, IS A 28VDC POWERED RUGGEDISED PROTOCOL CONVERTER, COMPRISING OF 1 ARINC-429 INPUT CHANNEL AND 1 RS-232 OUTPUT CHANNEL.

THE IP5010 HAS THE OPTION FOR EITHER AN RS-422 OR USB INTERFACE AS AN ALTERNATIVE TO RS-232.

THE IP5010 PROVIDES AN NMEA-0183 OUTPUT STREAM CONTAINING GGA AND RMC SENTENCES, ASSEMBLED FROM PARAMETERS RECEIVED ON THE ARINC-429 INTERFACE.

THE 'MKXX' PART NUMBER SUFFIX DEFINES THE CUSTOMER SPECIFIC CONFIGURATION OPTIONS, SUCH AS BAUD RATE, PARAMETER MAPPING AND INTERFACE TYPE.

GENERAL SPECIFICATION

POWER REQUIREMENTS: +28V POWERED (2W MAX)

WEIGHT: 0.350 kg MAX

TEMPERATURE:

OPERATING TEMPERATURE -45 TO +70 DEGREES C
STORAGE TEMPERATURE -55 TO +85 DEGREES C

PRODUCT SPECIFICATION

IP5010MKXX-PS-R1

INTERFACE CONTROL DOCUMENT (ICD)

IP5010MKXX-ICD-R1

SOFTWARE

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

COOLING

FREE AIR CONVECTION

PRODUCT REVISION IDENTIFICATION

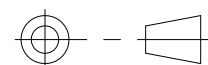
THE PRODUCT FOR WHICH THIS DOCUMENT RELATES SHALL BE IDENTIFIED WITH THE MAJOR REVISION NUMBER ONLY.

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 NGINIVITY STANDARD NCP001.



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IF IN DOUBT ASK

CAUTION- THIS DRAWING MAY NOT HAVE BEEN PRINTED FULL SIZE

APPROVED CHECKED	MATERIAL:-- PRINCIPALLY ALUMINIUM ALLOY	FINISH:-- ALOCROM 1200	TOLERANCES .XX +/-0.75 .XXX +/-0.25	ISSUE DATE CHANGE	1 15.12.09 NEW	1.01 10.03.10 CR00191													
LJC																			
DRAWN PDC			SCALE: 1:1 DIMS: MM	TITLE ARINC-429 TO NMEA-0183 CONVERTER MODULE				DRAWING NUMBER IP5010MKXX SHEET 1 OF 2				SIZE A2							

ELECTRICAL CONNECTIONS

PIN	FUNCTION	NOTES
1	+28VDC POWER INPUT	+18 TO +32 VDC (+28V NOMINAL)
2	0V POWER INPUT	
3	CHASSIS	
4	ARINC-429 SPEED SELECT	ACTIVE LO
5	ARINC-429 RX A	
6	ARINC-429 RX B	
7	RS-232 TX OR RS-422 TX+	DUAL FUNCTION PIN (RS-232 OR RS-422)
8	RS-422 TX-	RS-422 OPTION ONLY
9	RS-232 RX OR RS-422 RX+	DUAL FUNCTION PIN (RS-232 OR RS-422)
10	RS-422 RX-	RS-422 OPTION ONLY
11	DIGITAL GROUND	
12	USB +5V	USB OPTION ONLY
13	USB D+	USB OPTION ONLY
14	USB D-	USB OPTION ONLY
15	USB 0V	USB OPTION ONLY

NOTES:

+28V DC POWER IS SUPPLIED TO THE IP5010MKXX ON PINS 1 & 2 (2 AMP SUPPLY).

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

EFFECTIVITY

ARINC-429 BUS SPEED SELECT (PIN 4), LINK TO 0V DC (PIN 2) FOR 12.5KHZ OPERATION, OPEN CCT. OR LINK TO +28V DC (PIN 1) FOR 100KHZ OPERATION

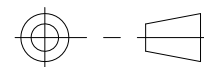
ARINC-429 INTERFACE IS OPTO-ISOLATED AND DOES NOT REQUIRE A SIGNAL GROUND

RS-232 SIGNALS (PINS 7 & 9) REFERENCED TO DIGITAL GROUND (PIN 11)

RS-422 SIGNALS (PINS 7, 8, 9 & 10) REFERENCED TO DIGITAL GROUND (PIN 11)

USB CABLE NOT TO EXCEED 5 METRES IN LENGTH

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DRAWN PDC			SCALE: 1:1 DIMS: MM	TITLE ARINC-429 TO NMEA-0183 CONVERTER MODULE					DRAWING NUMBER IP5010MKXX SHEET 2 OF 2					SIZE A2					