

# **AUTOMATIC AEROMAGNETIC DIGITAL COMPENSATOR (AADCII)**

## **SPECIFICATIONS**

<b>MANUFACTURER:</b>	<b>RMS INSTRUMENTS</b>
<b>INPUTS:</b>	one to four high sensitivity magnetometers of optical absorption type
<b>INPUT FREQUENCY RANGE:</b>	70KHz-350kHz-Cs sensor 140kHz-700kHz-K sensor 560kHz-2800kHz-He sensor 850kHz-4260kHz-Overhauser
<b>MAGNETIC FIELD RANGE:</b>	20,000-100,000 nT (gamma)
<b>RESOLUTION:</b>	1 pT (picotesla)
<b>COMPENSATION PERFORMANCE:</b>	improvement ratio 10-20 typical for total field improvement ratio 20-100 typical for gradient
<b>ACCURACY OF COMPENSATION:</b>	0.035 nT (gamma) standard deviation for the entire Aircraft flight envelope in the band width 0-1 Hz typical
<b>DATA OUTPUT RATE:</b>	10 Hz
<b>SYSTEM FREQUENCY RESPOND:</b>	0-0.9 Hz, 0-1.8 Hz, 0-3.3 Hz, selectable
<b>INTERNAL SYSTEM NOISE:</b>	0.3 Pt/sqrt(Hz), standard deviation in the bandwidth 0-3.2 Hz
<b>DURATION OF CALIBRATION :</b>	<b>FLIGHT MANOEUVRES</b> 5-8 minutes typical
<b>VECTOR MAGNETOMETER:</b>	3-axis fluxgate
<b>MICROCOMPUTER:</b>	LSI-11/73 (DEC) Main CPU and utilizing multiprocessor architecture
<b>KEYBOARD:</b>	limited alphanumeric
<b>DISPLAY:</b>	green fluorescent, 80 character self scan panel
<b>serial data communication port:</b>	<b>OUTPUTS:</b> RS232C- max. rate 19.2 Kbaud
<b>parallel output port:</b>	16 bit with full handshaking (DRV11-J) (optional) 4 analog outputs of 12 bit resolution, 10V full scale (optional) nominal 28 VDC
<b>POWER:</b>	110 W (single magnetometer) 155 W (four magnetometer) 21-36 VDC recommended max. operation range
<b>OPERATION TEMPERATURE:</b>	<b>ENVIRONMENTAL:</b> 0 TO 50 degrees C
<b>STORAGE TEMPERATURE:</b>	-20 to 55 degrees C
<b>RELATIVE HUMIDITY:</b>	0-99%, non-condensing
<b>ALTITUDE:</b>	0-6000 m (0-20,000 ft.)
<b>PHYSICAL DATA:</b>	console dimensions: 483 x 178 x 440 mm (19 x 7 x 17.3 in ) console weight (max. configuration of four magnetometers): 13.6 kg (30 lbs)