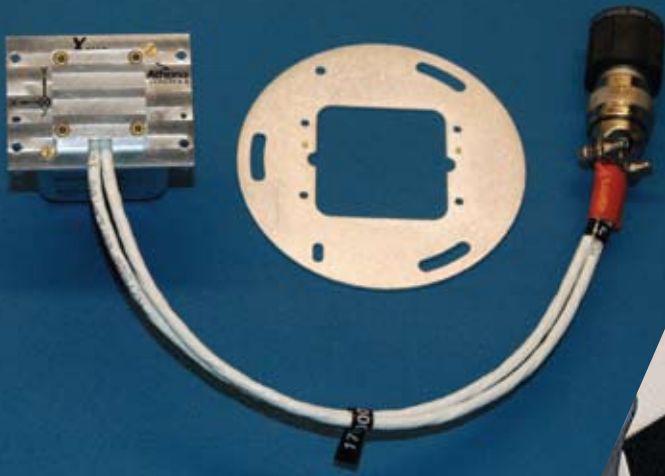


# Tri-Axial External Magnetometer



More accurate heading information with the flexibility of installation anywhere in an aircraft.

The Rockwell Collins' XMAG™ was designed to complement Athena products and can provide sensing data factored into the Kalman filter with data from multiple sensors to measure the earth's magnetic field. With easy installation anywhere on an aircraft, the XMAG is suitable for manned and unmanned aircraft of all sizes.

The XMAG includes an adapter plate that enables flexible mounting in preferred magnetically clean aircraft locations. Because of its small size and light weight, the XMAG fits in many existing locations in general, business and unmanned aircraft.

## KEY BENEFITS

- › Automatic ground and airborne calibration when used with an Athena or Micro INS™
- › Supports two electrical outputs: analog or digital serial outputs—perfect for replacing legacy magnetometers
- › Developed to DO-178B and qualified to DO-160E

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## SPECIFICATIONS

### Performance

Calibrated temperature range	-55 to 70°C
Bias stability	200 nT
Max scale factor error	0.2% of FS
Cross-axis misalignment	2 mrad
Full scale measurement range	+/- 100,000 nT
Measurement resolution	1 nT

### I/O

Digital serial outputs	2 (1x RS-232 1x RS-422)
Analog outputs	3x 0-5 VDC +/- 60,000 nT
Output bandwidth	Up to 250 Hz digital >300 Hz analog
Baud Rates	2400 bps; 4800 bps; 9600 bps; 19200 bps; 38400 bps; 57600 bps 115200 bps
Input power	<1 W @ 9-36 VDC DO-160E compliant Reverse polarity protection 50 ms operation through power dropout

### Mechanical and environmental

Temperature range	-55 to 70°C
Altitude	Up to 65000 ft
Weight	5 oz

### Power characteristics

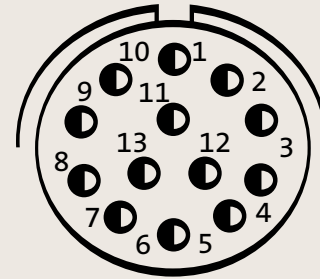
Parameter	Min	Typ	Max	Unit	Comments
Input voltage (V <sub>IN</sub> )	9	-	36	V <sub>DC</sub>	RTCA/DO-160E Category B qualified
Input power	500	700	900	mW	
Sustained dropout	50	-	-	ms	

### Analog output specifications

	Min	Typ	Max	Unit	Comments
V <sub>OUT</sub>	0.0	-	5.0	V <sub>DC</sub>	RL>500Ω
V <sub>OFFSET</sub>	2.490	2.5	2.510	V <sub>DC</sub>	RL>500Ω
Scale factor	25.974	26.214	26.454	nT/mV	RL>500Ω

## CONNECTOR INFORMATION

Amphenol AL06F11-35S MIL-C-38999 circular connector



# 11-35

### PIN OUT

PIN #	Signal
1	MAIN RTN
2	MAIN SUPPLY
3	RS-232 TX
4	RS-422 TX-
5	RS-422 TX+
6	RS-232 RX
7	DGND
8	RS-422 RX+
9	RS-422 RX-
10	MAG X ANALOG
11	MAG Y ANALOG
12	AGND
13	MAG Z ANALOG

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Rockwell Collins delivers smart communication and aviation electronic solutions to customers worldwide. Backed by a global network of service and support, we stand committed to putting technology and practical innovation to work for you whenever and wherever you need us. In this way, working together, we build trust. Every day.

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