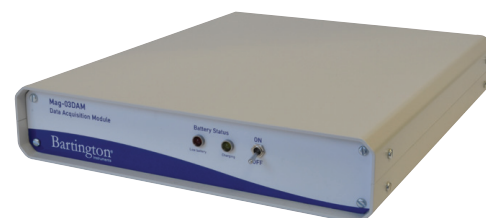


Mag-03DAM Data Acquisition Module

Designed to provide maximum resolution at low sampling frequencies, this portable, high resolution six-channel 24-bit acquisition unit is for the long-term recording of magnetic fields producing DC and low frequency signals, such as the Earth's magnetic field.

The Mag-03DAM connects and powers one or two magnetic field sensors. If only one sensor is used, the other inputs can record analogue signals such as temperature.



Features

- Selectable sampling frequency, 16- or 24-bit A to D, and low-pass filter frequency
- Data sampling and storage is controlled by the user's Windows® PC
- Acquired data is time-stamped and saved to disk
- Mains AC/DC adaptor supplied for battery charging, also enabling continuous operation

Typical Application

- Earth magnetic field monitoring

Mag-03DAM Specifications

Performance	
Number of input channels	Six (2x3 channels)
Input signal range	±10V
Resolution	16- or 24-bits, 24-bit monotonicity at up to 50Hz rate (single channel only)
Sampling rate	10Hz to 1027Hz software selectable
Scaling error	±0.05%
Linearity	0.002% of full scale at up to 50Hz data rate (typical)

* See the website of Lawson Laboratories (www.lawsonlabs.com) for more information.

Environmental	
Operating temperature range	-20°C to +60°C
Storage temperature range	-40°C to +85°C
Humidity	0-90% non-condensing

Mechanical	
Dimensions (W x H x D)	255 x 55 x 265mm
Weight	2.8kg
Enclosure	Aluminium
Connectors: mains adaptor sensor RS232 analogue output	2.1mm DC inlet 2 x Hirose RM15TRD10P 25-way D type 9-way D type
Output interface	RS232
Data acquisition card	Lawson Laboratories type 201*

Electrical	
Battery	RS 595-047, 12V, 2.1Ah, lead acid
Battery life	6 hours (dual sensor), 11 hours (single sensor)
Battery charging time	10 hours (typical)
Fuse	1A, anti-surge type 20mm
Analogue output voltage	±10V
Power input	9 to 24V DC, 120mA via mains adaptor provided
Power output to sensor	±15V, 54 ± 10mA
Sensor input	Unbalanced

RS232 25-way Comms Port to 9-way adaptor pin connections

Mag-03DAM 25 PIN	SIGNAL	COMPUTER 9 PIN
2	TX	3
3	RX	2
20	DTR	4
7	GND	5
4	RTS	7

9-way D-type socket pin allocation

PIN	SIGNAL
1	Magnetometer 1 – X axis output
2	Magnetometer 1 – Y axis output
3	Magnetometer 1 – Z axis output
4	Magnetometer 1 – common
5	Magnetometer 2 – X axis output
6	Magnetometer 2 – Y axis output
7	Magnetometer 2 – Z axis output
8	Magnetometer 2 – common
9	no connection

Data Acquisition Units

Bartington's data acquisition units accept analogue input from our sensors and output the signal in either analogue or digital format, depending on the unit selected.

The range includes:

Product	Function
Spectramag-6 Data Acquisition Unit	Simultaneous collection and analysis of magnetic field, vibration and acoustic data in three axes
Mag-03DAM Data Acquisition Module	Battery-powered processing of DC and low frequency signals from one or two magnetic field sensors

Product Compatibility

	Spectramag-6	Mag-03 DAM
Mag-13	•	•
Mag-03	•	•
Mag-03RC		
Mag639		
Mag648/649		
Mag670	•	•
Mag678/679		
Mag690	•	•