

# Grad-03ACU Analogue Correction Unit

The Grad-03ACU is a power supply unit providing analogue correction to the Grad-03 gradiometer. It gives visual readout of the gradient outputs with a resolution of 1nT.



Performance	
Signals generated	Differential signals $\Delta X$ , $\Delta Y$ , $\Delta Z$ . All other signals from the sensors are buffered
Range	$\pm 100\mu\text{T}$
Bandwidth at-3dB	2kHz
Noise	$< 20\text{pTrms}/\sqrt{\text{Hz}}$ at 1Hz
Scaling: X, Y, Z $\Delta X$ , $\Delta Y$ , $\Delta Z$	10 $\mu\text{T}/\text{V}$ 1 $\mu\text{T}/\text{V}$
Differential offset error	$< \pm 2\text{nT}$ after adjustment
Differential scaling error	$< \pm 2\text{nT}$ after adjustment
Temperature coefficient of scale factor	$< 5\text{ppm}/^\circ\text{C}$
Linearity error	$< 0.001\%$

Mechanical	
Dimensions (WxHxD)	200 x 120 x 70mm
Weight	0.9kg
ACU external connector	15 way 'D' type pinned

Electrical	
Voltage input	12V nominal (9-18V) DC
Power consumption	2.6W typical, including Grad-03 sensors
Output impedance	$< 1\Omega$

## Accessories

	Grad-03L	Grad-03M
Gradiometer to ACU cable	Optional extra	Optional extra
Mating connector	Optional extra	Optional extra
PicoLogger for ACU	Optional extra	Optional extra
Cable from ACU to PicoLogger	Optional extra	Optional extra