

Willmore Mk IIIC Series



- Low Noise 10^{-10} m/s²
- High Responsivity 10^4 Vm/s²
- Wide Band Output
- Optional Loop Defined Responses
- Broadband
- Long Period (Narrow band)
- Short Period
- Horizontal and Vertical Operation
- Easy to Install & Operate

SEASONICS WILLMORE MkiIIC was the first of a range of wideband seismic instruments and set a standard for all subsequent developments which is hard to match.

Although relatively small and portable compared with standard long period seismometers, it is most suited to either vault or shallow borehole use and provides a variety of loop defined responses that may be generated.

The instrument consists of the standard WILLMORE MkIII suspension to which a low noise capacitive displacement transducing system has been added. A current proportional to the mass displacement is fed back to the 'moving coil' of the MKIII transducing system to maintain the mass at equilibrium. Adjustable electronic feedback damping is included to give the user, besides the noise reduction of the technique, an instrument capable of detecting earth motion from the micro-seismic to the strong motion range. DC drift may be effectively eliminated by the servo control which also acts as a low frequency cut off.

All instruments are normally supplied overdamped and it is a simple operation to adjust the damping factor to the desired level. Since the damping is electronically controlled, shaping of the damping amplifier is possible allowing both short and long period responses to be realised. Response curves to the customer's specification can be produced.

The seismometer is enclosed in a stainless steel air tight housing which is not normally evacuated.

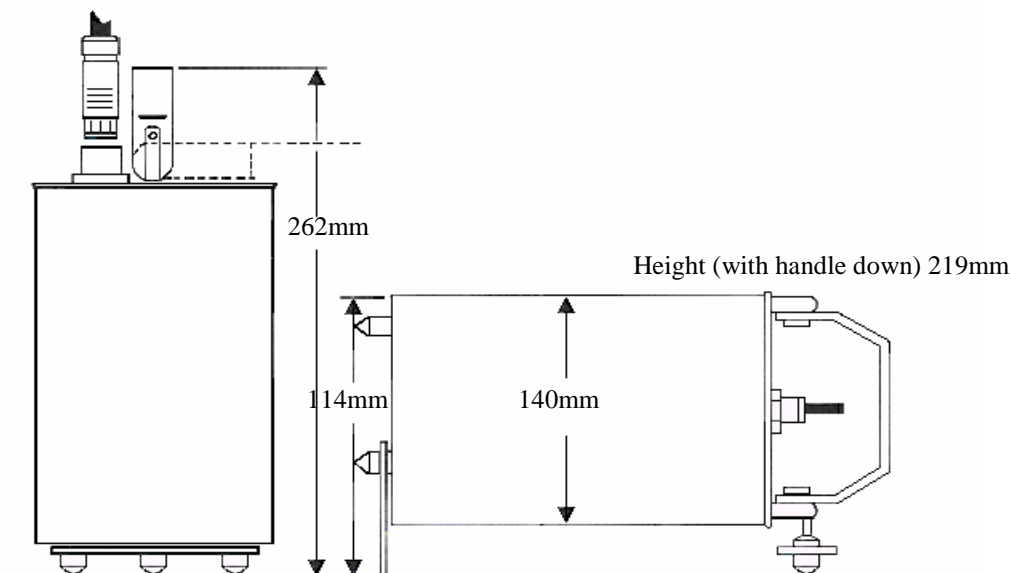
Specifications:

Dynamic Range	140dB
Maximum Output	10^{-3} m/s^2
Noise Level	10^{-10} m/s^2 per root Hertz
Sensitivity Variation over Temperature range	Less than 1%
Period variation over temp. range	Less than 5%, Linear to 200 Hz
Movement range	$\pm 2\text{mm}$ ultimate. Working range $\pm 1.5\text{mm}$
Standard Output Responses Available	
Acceleration Response	Flat DC to 25Hz, 10^4 V/m/s^2
Velocity Broadband	20s to 20Hz, 10^6 V/m/s (Other ranges available)
Long Period Narrow Band	$2 \times 10^6 \text{ V/m/s}$ at 20 sec
Short Period	$5 \times 10^6 \text{ V/m/s}$
Temperature range	-40 to +50°C
Suspension	5 Spoke Kinematic
Inertial Mass	1.2Kg
Weight	3.5Kg
Packed weight in double carton	6Kg

Housing:

Polished stainless steel, magnetic stainless top lid with "O" ring seal.

Dimensions (approx)	Overall Height	262mm
	Overall dia.	138mm
Connections	1.5m flying lead	
	Fischer waterproof connector	



DSL022



Sensonics Ltd
Northbridge Road
Berkhamsted
Herts, HP4 1EF
United Kingdom
Tel: +44 (0)1442 876833
Fax: +44 (0)1442 876477
www.sensonics.co.uk