

# BODENSEEWERK SEA GRAVITY METER SYSTEM KSS 31

The Gravity Meter System Kss 31, a high performance instrument for marine/air gravity measurement, has its application in oil prospecting and earth geophysics exploration.

The system consists of two main assemblies: the Gyro-stabilized platform including the gravity sensor and the Data handling & control system.

The following features will characterize the system:

### High Accuracy —

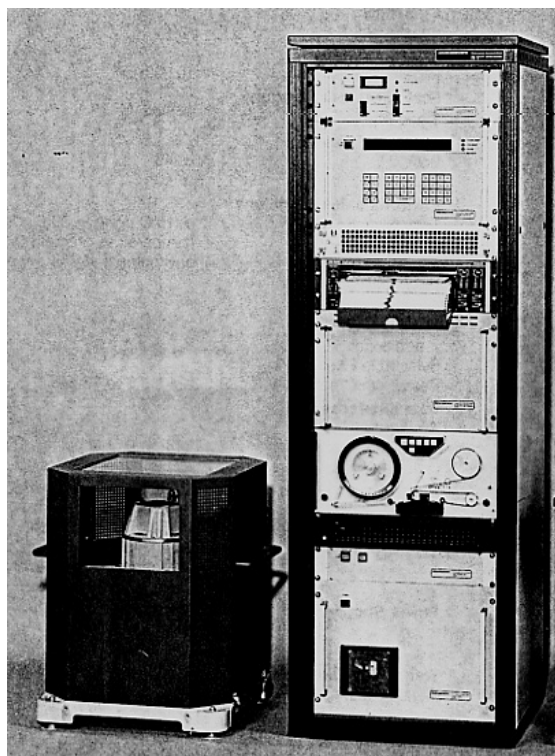
Using best precision mechanics and software controlled electronics with short recovery time for maximum accuracy after a profile change. Valuable measurement during turn-maneuvers.

### Ease of Operation —

- Freely programmable features via keyboard at the central processor unit
- Automatic run/up/down procedure
- No adjust required after a modular component change
- Continuous self-test of the system with status print out
- Fail-safe operational logic avoiding any system damage in failure case
- Ease of maintenance due to Built-in test facility.

### Special Capability —

On-line pre-processing capability of Eotvos, Free Air, and Bouguer corrections if appropriate NAV-DATA are available to the system.



# Technical Specifications

<b>Accuracy on Profile</b> for Vertical Acceleration (mgal RMS)	Dynamic** (mgal RMS)	Effective* * (mgal RMS)
<15.000	0,5	0.2
15.000 — 80.000	1	0.4
80.000 — 200.000	2	0.8
<b>Accuracy during Turn</b> for Vertical Acceleration (mgal RMS)		
15.000 — 80.000	2.5***	1***
<b>Drift Rate</b> (mgal/month)	<3	
<b>Measuring Range</b> (mgal)	10.000	
<b>Scale Factor Calibration</b> Standard	<0.5 %	
<b>Platform Freedom</b>		
Roll	± 40 <sup>0</sup>	
Pitch	± 40 <sup>0</sup>	
<b>Environmental Conditions</b>		
Temperature	+ 15 <sup>0</sup> C up to + 30 <sup>0</sup> C (temperature gradient for the environment < 2 <sup>0</sup> C per hour)	
<b>Response Time</b>		
Gravity Sensor:		
Low Pass 1st Order	t = 36 sec	
additional		
Selectable Filters:		
Bessel 4th Order	t =10,5 to 75 sec	
<b>Data Interfaces</b>		
<b>Analogue</b> Output for Signal Monitoring (selectable via keyboard)	for 2 to 6 channel strip chart recorders (± 5V)	
<b>Digital</b> Data Interface	Standardized V24 or RS232C Serial Interlace for Data Transmission from ships Navigation System to Magnetic Tape Recorder to Printer or Teletype	
<b>Power Supply</b>	220 V; 50/60 Hz; 1 Ph or 110V; 60 Hz; 1 Ph	
<b>Weight and Dimensions</b>		
Platform with sensor	72 kg 52 x 52 x 69 (cm <sup>3</sup> )	
Data handling subsystem (19' rack)	200 kg 55 x 65 x 183 (cm <sup>3</sup> )	

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