

Terrameter SAS 4000



- Your choice, when information demands are at their peak!

- Resistivity, IP and SP data at highest possible productivity

ABEM

Technical Specifications: Terrameter SAS 4000 Resistivity, IP & SP

General

Computer	PC compatible
Memory Capacity	More than 1 500 000 readings
Display	LCD, 200 x 64 pixels. 8 lines of 40 char.
Multifunction connector	Current and potential for all four channels including RS232 communication for external devices as PC, LOG & Imaging LUND Imaging System, SAS LOG
External devices	Optional Clip-on rechargeable power pack or external 12V DC through SAS-EBA
Power	Rugged cast Aluminium case, meets IEC IP 66
Casing	Weight 5,3 kg
Dimensions	105 x 325 x 270 mm (W x L x H) with SAS-EBA
Ambient temperature	-5°C to + 50°C, operating

Receiver

Resistivity

Number of channels	4 bipolar, galvanically isolated
Input impedance	10 M Ω minimum
Resolution (theoretical)	30 nV
(WI Accuracy (typical)	1 %
(WI Precision (measured)	better than 0,1 %
	(in the range 4 - 200, Ω at 1 second integration)
Dynamic range	Up to 140 dB plus 64 dB automatic gain (at 1 second integration)

Induced Polarisation (IP)

Number of channels	4 bipolar, galvanically isolated
Input impedance	10 M Ω minimum
Resolution	30 nV
Type of IP meas.	Time domain chargeability (M)
Initial time delay	10 ms up to 10 s in steps of 10 ms
Precision (typical)	0,01 ms
IP chargeability	Up to ten time windows on all four channels
IP basic integr. interval	20 ms / 16.66 ms depending on power line frequency
Integration interval	Up to 8 seconds
Dynamic range	Up to 140 dB plus 64 dB automatic gain (at 1 second integration time)

Self Potential (SP)

Number of channels	4 bipolar, galvanically isolated
Input impedance	10 M Ω minimum
Maximum input voltage	400 Volt
Automatic ranging	0-250 mV, 0-10 V, 0-400 V
Resolution (theoretical)	30 Nv
Accuracy (typical)	1 %
Accuracy (measured at 1 second integration)	At 100 mV better than 0,2 % At 5 V better than 0,2 % At 100 V better than 0,2 %
Precision (measured at 1 second integration)	At 100 mV better than 0,2 % At 5 V better than 0,1 % At 100 V better than 0,1 %
Dynamic range	Up to 140 dB plus 64 dB automatic gain (at 1 second integration)

Transmitter

Output current	1,2,5,10,20,50,100,200,500,1000 mA (operator set or autoranging)
Maximum output voltage	400 V (800 V peak-to-peak)
Maximum output power	100 W

Cycle type in resistivity mode	Plus-Minus-Minus-Plus
Cycle type in IP mode	Plus-Zero-Minus-Zero
Pulse length	0.1 to 4 seconds
Output current accuracy	Better than 0,5 % at 100 mA

Accessories

Multi-electrode Survey Systems for 2D & 3D

LUND Resistivity & IP Imaging

A centrally switched system for automatic resistivity, IP profiling and vertical imaging

See the LUND brochure for more information

Borehole logging

SAS LOG 300 logging unit

Cable length	300 m
Cable markings	Every meter
Probe diameter	40 mm
Weight (200 m)	15 kg
Dimensions	330x750x225 mm (WxLxH)

Survey modes and ranges:

16 " short normal	0,05 -100 000 Ω m
64 " long normal	0,5 -100 000 Ω m
18 " lateral	0,5 -100 000 Ω m
Fluid resistivity cell	0,05 -100 000 Ω m
Self Potential	0,05 -1 000 mV
Temperature	0°C to + 50°C
Temperature precision	\pm 0,01°C (0-20°C) \pm 0,1°C (20-50°C)
Temperature accuracy	\pm 1°C
Water level indication	

STANDARD FIELD EQUIPMENT

1	ABEM Terrameter SAS 4000 includes: One SAS 4000 Receiver / Transmitter unit One RS232 Cable (9 pin D-sub) One SAS-EBA External Battery Adapter One SAS 4000 Software kit One SAS 4000 Documentation kit	33 0020 30
2	Multi-Channel Adapter	33 0020 02
3	Tools and Spares kit	33 0020 01
4	Tool Bag	38 3000 02
5	S & W sounding cable set Includes: 2 x 250 m cable on reel 2 x 750 m cable on reel 4 x interconnect cable 4 x crocodile clip Transport plywood box	33 0012 40
6	Stainless steel electrode	33 0012 61
7	Non-polarizable electrode	33 0015 79

With reservations for changes; our products undergo continuous development

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