



DCVG SURVEY EQUIPMENT



REVISION 1

OVERVIEW

DCVG is a survey method developed to determine and evaluate the condition of pipeline coatings. As the coating is the prime corrosion defense mechanism it is important to be able to assess its effectiveness particularly in situations where the status of the secondary corrosion prevention system (the Cathodic Protection system) is in question.

A common method uses a highly accurate and multi ranged centre zero voltmeter in conjunction with current interrupters to measure voltage gradients in the soil along the pipeline route. Localised changes in measured gradients indicate increased current flow and by deduction this usually means a coating defect is present. The accuracy of the instrument and the skill of the operator allows detailed investigation of the location and the collected data can be interpreted to categorise many defects along the route and prioritise on coating repairs.

STANDARD PACKAGE/SPECIFICATION

- 1 off DC Voltage Gradient Survey Meter complete
8 ranges 10mV to 4V *
- 1 off DC Voltage Gradient Interrupter rated to
50amps **
- 2 off Probe Handles ***
- 3 off Probe assemblies including outer sheaths,
tips and Cu Electrodes
- 2 off Right Hand Connector Leads
- 2 off Left Hand Connector Leads
- 3 off Probe Tip Holders
- Washers (pack of 5)
- Wooden Probe Tips (pack of 5)
- PTFE Sealing Tape (pack of 2 reels)
- 1 off Battery Charger ****
- 1 off Charge Splitter
- 1 off Copper Sulphate Bottle
- 1 off Carrying Case
- 1 off Probe Carrying Case





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PRODUCT SPECIFICATION

* The input impedance of the Survey Meter is 1 Giga-ohm

Centre zero and full scale deflection ranges of:	4.0	volt
	2.5	volt
	1.0	volt
	250	millivolt
	100	millivolt
	50	millivolt
	25	millivolt
	10	millivolt

** The Switcher Unit is able to switch the cathodic current in two ways:-

Either 0.3 seconds ON 0.6 second OFF; or 0.6 seconds ON 1.2 seconds OFF
Interruption rated at 100volts and 100 amps are available on request

*** The handles of the probes are switchable to provide bias voltage ranges from 1.3 volts to 30 millivolts and thereafter can be fine tuned by a potentiometer to set the meter null point. The body of each probe is a copper/copper sulphate cell making contact to the ground through a wooden tip which is saturated with the copper sulphate solution.

**** The charger unit is rated at 20VA. The input may be selected as either 110volts or 220volts. The output is 20 volts. It is capable of charging the meter, switcher and handle simultaneously using the splitter supplied. The full set may be fully charged from "flat" overnight.

Service

We offer a refurbishing and re-calibration service on equipment produced by both us and third parties.

Training

We can offer full product training both field and classroom based from our offices in the UK. We would also be pleased to carry out training at client premises or at any other location to suit particular requirements.