BUCKLEYS

MANUFACTURERS OF SPECIALIST TEST EQUIPMENT

DC Pinhole/Holiday Detectors

test for defects in coatings & linings over conductive materials

DC Pinhole/Holiday Detectors

A high-voltage DC holiday detector is a quick and effective means of locating defects and faults in non-conductive coatings over conductive materials. The detector unit is used in conjunction with a suitable electrode and passed over the entire coating area. Weak spots, faults and pinholes are located by the completion of an electrical circuit through the defect to the conductive material beneath; triggering the detector unit's alarm.

DC pinhole/holiday detectors have a wide range of applications across numerous industries; from locating leaks in flat roofs to integrity-testing corrosion resistant coatings on pipelines; from testing cable insulation to locating faults on waterproof bridge-deck coatings.

Buckleys manufacture a wide range of electrodes and accessories for our detectors; designed to make the testing process as effective and as quick as possible. In addition to this, we offer a range of kits which have been created with a specific purpose in mind and include a combination of accessories which are optimised for that application; such as our PHD Pro'6S, PHD Pro'30S and PHD Pro'40S kits.

We also manufacture electrodes to customers' specifications as well as offering innovative solutions to unique testing situations or environments.

PHD Pro' range

Buckleys PHD Pro' pinhole/holiday detectors offer unsurpassed accuracy and reliability in a compact, battery-powered portable unit.

The highly versatile PHD Pro' range is available in three outputs; the PHD Pro'6 has an output voltage range of 500V to 6kV - ideal for testing thinner coatings of between 4µm and 570µm, while the PHD Pro'30 can test coatings thicknesses up to 14.4mm and the PHD Pro'40 can test thicknesses up to 25.6mm.

The PHD Pro' is available in three kit levels; Basic kit, Standard/Pipeline kit and Complete kit.

The **Basic kit** *(PHD Pro'6B, 30B and 40B)* offers an entry-level option; capable of performing basic coatings test procedures and is ideal for those who already have suitable accessories and electrodes.

Part numbers: 0.5-1kV: 6002-0059, 1-30kV: 6002-0060, 2-40kV: 6002-0061

The **Standard/Pipeline kit** *(PHD Pro'6S, 30S and 40S)* is configured to suit a range of test procedures; providing the ideal mobile pinhole/holiday detector kit for testing coatings outside of the factory/production environment.

Part numbers: 0.5-1kV: 6002-0062, 1-30kV: 6002-0063, 2-40kV: 6002-0064

The **Complete kit** *(PHD Pro'6C, 30C and 40C)* includes an extensive range of accessories and electrodes, designed to handle a variety of test procedures. Supplied in a high-visibility transit case; the kit is ideal for on-site testing.

Part numbers: 0.5-1kV: 6002-0065, 1-30kV: 6002-0066, 2-40kV: 6002-0067

Features

- Compact and portable
- Simple to use
- Clear display and controls
- Visual and audible alarm with volume control
- Automatic output voltage selector
- Accurate sensitivity control
- Compatible with older PD accessories
- Robust powder-coated, cast aluminium enclosure
- One year 'back to base' warranty
- CE approved

DCCT range

The DCCT is designed to be a static, mains-powered pinhole/holiday detector; ideal for use in automated testing facilities and production lines.

The DCCT's casing is designed to fit industry-standard mounting racks and is available in four outputs - 1-7.5kV, 2-15kV, 4-30kV and 5-40kV.

All variants are available with a test probe handle for manual use or without; for connection to production-line electrodes.

Part numbers (units without handle): 1-7.5kV: 6002-0004, 2-15kV: 6002-0006, 4-30kV: 6002-0008, 5-40kV: 6002-0010
(unit with handle): 1-7.5kV: 6002-0005, 2-15kV: 6002-0007, 4-30kV: 6002-0009, 5-40kV: 6002-0011

Features

- Housed in a robust metal case
- Easy adjustment of test voltage
- Clearly readable kV meter
- Resettable high-speed counter
- Variable alarm and sensitivity
- Visual and audible alarms
- Suitable for low or high speed testing
- Conforms to DC testing of cables BS EN 62230:2007

Specifications

Specifications	DC voltage range	Sensitivity range	Testable thicknesses	Battery life*	Weight	Dimensions
PHD Pro'6	0.5-6kV	10-450µA	4µm-576µm	16 hours*	1.64kg	172mm x 85mm x 235mm
PHD Pro'30	1kV-30kV	10-450µA	16µm-14.4mm	10 hours*	1.64kg	172mm x 85mm x 235mm
PHD Pro'40	2kV-40kV	0-450 µA	64µm-25.6mm	8 hours*	1.64kg	172mm x 85mm x 235mm
DCCT 1-7.5kV	1-7.5kV	0-600 µA	16µm-900µm	n/a‡	17kg	50cm x 30cm x 33cm
DCCT 2-15kV	2-15kV	0-600 µA	64µm-3.6mm	n/a‡	17kg	50cm x 30cm x 33cm
DCCT 4-30kV	4-30kV	0-600 µA	256µm-14.4mm	n/a‡	17kg	50cm x 30cm x 33cm
DCCT 5-40kV	5-40kV	0-600 µA	400µm-25.6mm	n/a‡	17kg	50cm x 30cm x 33cm

‡DCCT is powered by a mains AC supply. *Tested as BSEN-50356 @ max. output with 10000mAh NiMH cells. *Observed average battery life. Test voltage formula: NACE SP 0274.

Accessories


Knurled Thumb-Nut & Back-Nut
6005-0465


PHD Pro' High-Visibility Transit Case
6005-0457


Gold-plated stackable 4mm Banana Plugs
2009-0037


45° Gauze Mesh Electrodes
6005-0235


PHD Pro' Coiled Interconnecting Lead
6005-0451


Phosphor-Bronze Brush Electrodes
(See Data Sheet E1)


Insulated Extension Rod End-Section
6005-0460


5m Earth Lead
6005-0073


Drum Brush Electrode
6005-0237


Rolling Spring Electrode Attachment
5700-0065


Flexible Probe Electrode
6005-0239


High-Voltage Lead (DCCT)
6005-0071


Insulated Extension Rod Mid-Section
6005-0459


Rechargeable D-Cell Battery
6005-0022


PHD Pro' Carrying Bag
6005-0456


Anti-static Wristband
4016-0132


Trailing Earth Lead
6005-0079


Curved Phosphor-Bronze Brush Electrodes
6005-0146

Also available

We are able to make a wide variety of electrodes to suit our clients' requirements and we can offer innovative solutions to simplify the testing process.

We designed and manufactured this bespoke electrode system to test internal coatings on large-diameter sections of pipework. The electrode system is connected to a DC pinhole/holiday detector and drawn through pipework. Its double-leaf silicone-rubber electrode design ensures excellent contact is made with the coating.

For more information on Buckleys products, call our sales team on +44 (0)1303 278888, email sales@buckleys.co.uk or visit: www.buckleysinternational.com

Buckleys House, Unit G, Concept Court, Shearway Business Park
Shearway Road, Folkestone, Kent CT19 4RG, UK
Tel: +44 (0)1303 278888 Fax: +44 (0)1303 274331 Email: sales@buckleys.co.uk

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www.buckleysinternational.com

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