

Pinhole Detector



Ascott Analytical Equipment Limited

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Pinhole Detector

The Pinhole Detector uses the wet sponge principle to detect through-pinholes, cracks and damaged areas on non-conductive coatings on conductive substrates. These flaws would eventually lead to corrosion and premature failure of the coating.



Operation is by a wet sponge, moistened with a wetting agent, being moved over the coating. The wetting agent penetrates any pinhole and makes a conductive path through to the substrate.

The Pinhole Detector detects this conductive path and indicates that a pinhole has been detected by sounding an audible alarm and giving a visual warning by a red flashing indicator.

The Pinhole Detector has test voltages of 9 Volts, 67.5 Volts and 90 Volts, which are easily selectable.

The Pinhole Detector must not be used in any area which could have a combustible or flammable atmosphere, as the test voltage can cause a spark and an explosion could occur.

Specification

Accuracy: $\pm 1\%$.

Maximum test thickness 9V: 300 μm .

Maximum test thickness 67.5V & 90V: 500 μm .

Compliance

ISO 29601.



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Supply

Supplied in an industrial foam-filled Carrying Case with 150mm Sponge Assembly and 5m Earth Cable.



Ordering

T01-30640 Pinhole Detector 9V/67.5V/90V

T01-30645 Spare Earth Cable 5m

T01-30646 Spare Sponge Assembly

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Instructions

Detection

Connect the plugs on the Pinhole Detector Handle and Earth Cable to the colour-coded sockets on the base of the instrument.



Connect the Earth Cable to the base metal of the item under test. It is essential that the base metal of the item being tested is also connected to a true earth.

Switch the Pinhole Detector on and select the test voltage of 9V, 67.5V or 90V using the mode keypad. The test voltage should normally be 90V.

A test voltage of 9V can be used for coatings with a mean thickness of up to 300µm.

Wet the Sponge with water containing a wetting agent. Squeeze the Sponge so that the excess water is removed and the Sponge does not drip.

Place the Sponge on the coating to be tested and move over the full area of the coating, ensuring a wet interface is maintained between the Sponge and the surface.

If a pinhole is detected, the water will make a conductive path through the pinhole in the coating to the metal substrate, the alarm will sound and the red flashing fault indicator will illuminate. The flaw can now be marked for repair and further testing can be resumed.

To switch the Pinhole Detector off, press the mode keypad until the selectable voltages indicators are not illuminated.

If the coating has been applied recently, it should be cured in accordance with the manufacturer's instructions before testing. In the absence of manufacturer's instructions the coating should be cured for at least 10 days.

The surface of the coating should be free of oil, dirt and other contaminants before testing.

Replacing Battery

When the battery requires replacement, the red Lo Bat indicator will illuminate.

With the instrument switched off remove the cover located on the rear of the instrument, replace with an alkaline PP3 battery, ensuring correct polarity.