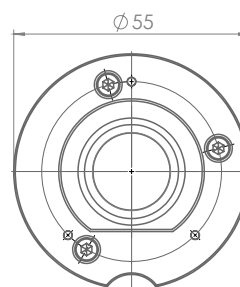
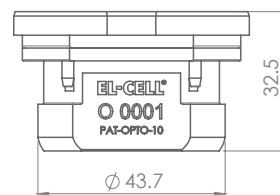


Measurements in mm:



PAT-Cell-Opto-10

PAT series test cell for optical and X-Ray characterization in the reflective mode

The PAT-Cell-Opto-10 is an advanced next generation battery test cell. It is designed for in situ characterization of electrodes using methods such as light microscopy, Raman spectroscopy, or X-Ray in reflection mode.

The PAT-Cell-Opto-10 utilizes the cableless PAT socket for cell connection. This way, it can be directly plugged into a PAT battery tester like the PAT-Tester-x-8 or a PAT docking station to connect it to a third-party battery tester.

Key Features

- High cycling stability due to improved sealing concept
- Dedicated sample holders for different electrode arrangements available
- Fast assembly and dismantling and easy cleaning of cell components
- Electrodes are easily accessible for post-mortem analysis
- Integrated PAT-Button for automatic cell identification in EL-Software
- Cableless cell connection via PAT socket

Use Cases:

- 2-electrode setup
- 3-electrode setup
- Light microscopy
- Raman spectroscopy
- X-Ray
- Aprotic electrolytes

Product website:



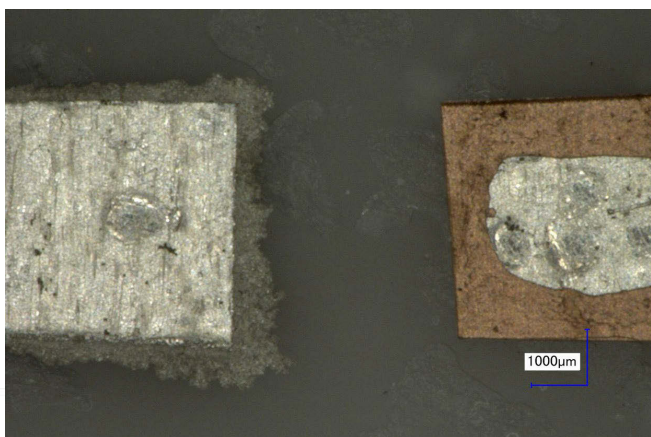
Manual (PDF):



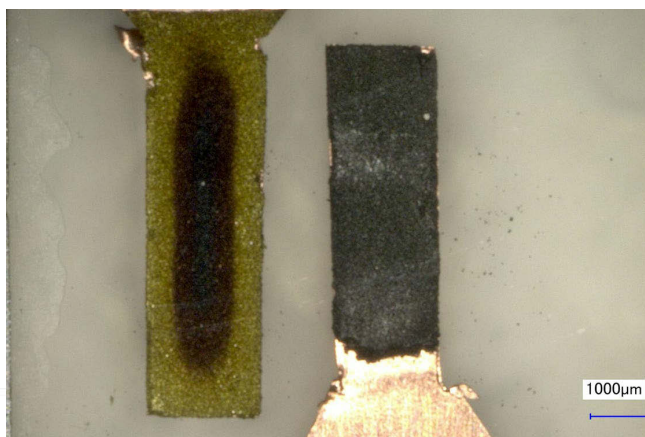
Specifications

Height	32 mm
Width / Depth	55 mm
Weight	0.3 kg
Electrode dimensions	up to 10 mm in diameter
Operational temperature range	-20 to +80 °C
Optical characterization mode	Reflective
Cell operation	2 or 3 electrodes
Cell connection	Cableless via PAT Socket

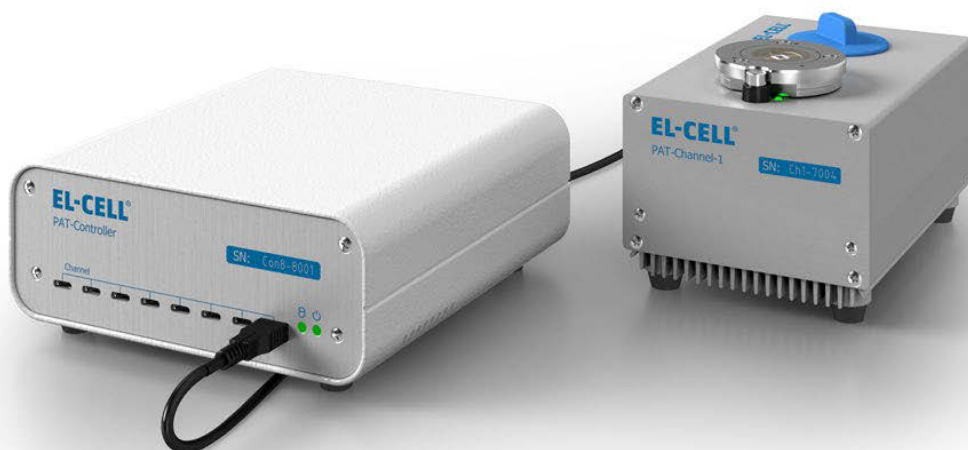
Sample test results



Lithium metal electrodes embedded into a glass fiber separator soaked with electrolyte. Applying a current of 20 µA for 5 hours makes the lithium to dissolve from the supporting copper foil (right electrode) and to plate as dendrites on the opposite side (left electrode).



The picture shows two graphite electrodes embedded in a glass fiber separator soaked with electrolyte. The graphite electrode on the left is being lithiated from the lithium metal electrode below the separator.



Electrochemical test setup showing a PAT-Cell-Opto-10 readily connected to a PAT-Tester-x-8 potentiostat