Cylindrical Battery Cell Holder - Horizontal Configuration

Part Number: **IP-CBH-HO-XXXXX**

BASi

Reach Your Potential

The customized cylindrical cell holder is designed to securely accommodate a single cylindrical battery cell in a horizontal configuration. The cell is positioned between fixed and spring-loaded electrical contacts, with an adjustable sliding mechanism to accommodate different cell lengths. A mechanical toggle clamp provides secure and stable cell positioning during testing. The holder provides reliable electrical contact and can be configured with separate current and voltage-sensing terminals for accurate 2-wire or 4-wire Kelvin measurements. It is suitable for battery characterization, EIS, charge–discharge, DCIR, OCV, and cycle-life testing.



Cell Model	Diameter	Height
26650	26mm	65mm
26700	26mm	70mm
26800	26mm	80mm
32650	32mm	65mm
32140	32mm	140mm

TECHNICAL SPECIFICATIONS

Parameter	Specification
Product Name	Customized Cylindrical Battery Cell Holder
Holder Type	Single-cell cylindrical cell holder
Cell Configuration	1 × cylindrical cell
Cell Compatibility	Customized according to required cell diameter and length
Recommended Cell Diameter	Ø10–30mm
Recommended Cell Length	30–100mm
Cell Positioning	Horizontal
Contact Mechanism	Spring-loaded movable contact
Adjustment Mechanism	Sliding contact with locking arrangement
Cell Fixing	Toggle clamp / mechanical locking clamp
Electrical Contacts	Conductive metal contact pins
Contact Material	Copper/brass, nickel- or gold-plated
Base Material	Insulating engineering polymer / Aluminium with electrical insulation
Base Construction	Rigid machined base plate
Terminal Connection	Banana plug / test lead connection
Electrical Configuration	2-wire or 4-wire Kelvin configuration
Positive Connection	Red terminal
Negative Connection	Black terminal
Current Rating	Up to 10–15 A standard
High-Current Option	Up to 30 A, subject to contact design
Contact Pressure	Spring-loaded for stable electrical contact
Cell Replacement	Quick and easy
Polarity Identification	Clearly marked + / –
Mounting	Bench-top / screw mounting
Operating Temperature	Approx. –20 to +80 °C
Application	Battery testing and electrochemical characterization

MECHANICAL DESIGN

The holder consists of a **rigid base plate**, two vertical support blocks, and adjustable electrical contact assemblies. One contact can be positioned along the base slot according to the **length of the cylindrical cell**. The spring-loaded contact mechanism maintains consistent pressure against the battery terminals.

A **toggle clamp** is provided for secure mechanical positioning of the cell during testing, helping to prevent movement or loss of electrical contact.

ELECTRICAL CONNECTION

For EIS and precision battery measurements, the holder can be configured with **four electrical connections**:

- **P+** – Positive current/force
- **S+** – Positive voltage sense
- **S–** – Negative voltage sense
- **P–** – Negative current/force

This 4-wire Kelvin configuration helps minimize the effect of lead and contact resistance during **EIS, DCIR and other low-resistance measurements**.

SUITABLE APPLICATIONS

- ✓ Cylindrical Li-ion battery testing
- ✓ Battery charge/discharge testing
- ✓ **Electrochemical Impedance Spectroscopy (EIS)**
- ✓ DC internal resistance (DCIR) measurement
- ✓ OCV measurement
- ✓ Cycle-life testing
- ✓ Battery performance evaluation
- ✓ Battery material research
- ✓ Potentiostat/galvanostat testing
- ✓ Battery cycler testing
- ✓ R&D and quality-control testing

PART NUMBERS FOR ORDERING

BASi Part Number	Short Description	Long Description
IP-CBH-HO-26650	Batt. Hol for cust. cyld.Cell	Customized Cyldrical Battery holder - Horizontal - 26650 - 26mm dia, 65mm Height, cell position - horizontal, 2-wire or 4-wire,up to 10-15 A standard. Available for 26650 / 26700 / 26800 / 32650 /32140 batteries.
IP-CBH-HO-26700	Batt. Hol for cust. cyld.Cell	Customized Cyldrical Battery holder - Horizontal - 26700 - 26mm dia, 65mm Height, cell position - horizontal, 2-wire or 4-wire,up to 10-15 A standard. Available for 26650 / 26700 / 26800 / 32650 /32140 batteries.
IP-CBH-HO-26800	Batt. Hol for cust. cyld.Cell	Customized Cyldrical Battery holder - Horizontal - 26800 - 26mm dia, 65mm Height, cell position - horizontal, 2-wire or 4-wire,up to 10-15 A standard. Available for 26650 / 26700 / 26800 / 32650 /32140 batteries.
IP-CBH-HO-32650	Batt. Hol for cust. cyld.Cell	Customized Cyldrical Battery holder - Horizontal - 32650 - 26mm dia, 65mm Height, cell position - horizontal, 2-wire or 4-wire,up to 10-15 A standard. Available for 26650 / 26700 / 26800 / 32650 /32140 batteries.
IP-CBH-HO-32140	Batt. Hol for cust. cyld.Cell	Customized Cyldrical Battery holder - Horizontal - 32140 - 26mm dia, 65mm Height, cell position - horizontal, 2-wire or 4-wire,up to 10-15 A standard. Available for 26650 / 26700 / 26800 / 32650 /32140 batteries.



CORPORATE HEADQUARTERS

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