The Super Solar Caliper gets its power from light, eliminating the need for batteries. IP-67 Protection ensures excellent performance in harsh environments.
Top-of-the-line Digital caliper with Solar ABSOLUTE System needs no battery and has IP67 protection!

1 With no origin reset necessary, measuring can begin immediately and there is no overspeed error.

The linear encoder with ABSOLUTE System has eliminated the need to reset the origin after switching the instrument on. Also, origin reset is not required even when data is re-displayed after disappearance due to insufficient illumination during use.

2 World’s unique* solar-powered Super Caliper that is eco-friendly and needs no battery!

(*: According to Mitutoyo investigation in January, 2005)

The use of a Super Capacitor provides a large-capacity charge function* that allows extended operation even in dim conditions. *See back page

3 The display unit has better impact resistance under tough workshop conditions.

This transparent cover on the display unit has been thickened and shaped to protect the whole display unit and is made from a new material that absorbs impact.

4 IP67 protection assures waterproof reliability.

This Super Caliper can be used in conditions where it is subject to considerable exposure to cutting fluids, making it reliable as a mechanical caliper.

5 The components do not contain any harmful substances and they meet RoHS Directives.
Specifications

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Range</th>
<th>Resolution</th>
<th>Accuracy*</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>500-776</td>
<td>150mm</td>
<td>0.01mm</td>
<td>±0.02mm</td>
<td>180g</td>
</tr>
<tr>
<td>500-777</td>
<td>200mm</td>
<td>0.01mm</td>
<td>±0.02mm</td>
<td>210g</td>
</tr>
<tr>
<td>500-786</td>
<td>6”/150mm</td>
<td>0.0005”/</td>
<td>±0.001”/</td>
<td>±0.02mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.01mm</td>
<td>±0.001”/</td>
<td>±0.02mm</td>
</tr>
<tr>
<td>500-774</td>
<td>150mm</td>
<td>0.01mm</td>
<td>±0.02mm</td>
<td>180g</td>
</tr>
<tr>
<td>500-775</td>
<td>200mm</td>
<td>0.01mm</td>
<td>±0.02mm</td>
<td>210g</td>
</tr>
<tr>
<td>500-784</td>
<td>6”/150mm</td>
<td>0.0005”/</td>
<td>±0.001”/</td>
<td>±0.02mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.01mm</td>
<td>±0.001”/</td>
<td>±0.02mm</td>
</tr>
<tr>
<td>500-785</td>
<td>8”/200mm</td>
<td>0.01mm</td>
<td>±0.02mm</td>
<td>180g</td>
</tr>
</tbody>
</table>

*Quantizing error ±1 count is not included.

Features

**Functions**
- Origin setting
- Error reporting

**Protection level**
- IP67 (IEC60529)**

**Power supply**
- Solar cell**

**Maximum response speed**
- Unlimited

**Achieving IP67 protection level**

<table>
<thead>
<tr>
<th>Type</th>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6:</td>
<td>Dust-tight</td>
</tr>
<tr>
<td></td>
<td>7:</td>
<td>Protected</td>
</tr>
</tbody>
</table>

**Protection from solids (people or things)**
- 6: Dust-tight
- Protection against ingress of dust and full protection against contact

**Protection from liquids (water, etc.)**
- 7: Protected against the effects of temporary immersion in water.
- Ingress of water in quantities causing harmful effects shall not be possible when the enclosure is temporarily immersed to a depth of 1 m in water under standardized conditions of pressure and time.

Optional accessories

**Water-resistant connection cable**
- 40” (1m) cable: No.05CZA624
- 80” (2m) cable: No.05CZA625

**DP-1VR Digimatic Mini-processor**
- No.264-504-5A
  - (Data processing device for quality control applications)

**MIG-4A**
- No.982-548-10A
  - (Measurement data transmission device, RS-232C)

**USB Input Tool**
- (Measurement data input device with USB keyboard signals, sends data directly to spreadsheets, etc.)
- No.264-012

Dimensions

![Dimensions Diagram]

<table>
<thead>
<tr>
<th>Order No.</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
<th>e</th>
</tr>
</thead>
<tbody>
<tr>
<td>500-774/500-776</td>
<td>.83*</td>
<td>.65*</td>
<td>9.17*</td>
<td>1.57*</td>
<td>.63*</td>
</tr>
<tr>
<td>(21)</td>
<td>(16.5)</td>
<td>(23.3)</td>
<td>(40)</td>
<td>(16)</td>
<td></td>
</tr>
<tr>
<td>500-784/500-786</td>
<td>.96*</td>
<td>.79*</td>
<td>11.42*</td>
<td>1.97*</td>
<td>.63*</td>
</tr>
<tr>
<td>(24.5)</td>
<td>(20)</td>
<td>(290)</td>
<td>(50)</td>
<td>(16)</td>
<td></td>
</tr>
</tbody>
</table>

Optional accessories

**Water-resistant connection cable**
- 40” (1m) cable: No.05CZA624
- 80” (2m) cable: No.05CZA625

**Output switch**
- This connection cable is dedicated to the super caliper.
How the Super Caliper is Charged

The minimum illumination required in the uncharged state is 60 lux.

As shown in the table ‘JIS Z 9110 Artificial Illumination Intensity Standard’, this Super Caliper can be used without problems in a normal work environment.

The charge function allows the operator to use this Super Caliper without interrupting work even if the ambient illumination is temporarily insufficient.

- In the fully charged state this Super Caliper can operate for approximately an hour in an environment of 50-lux illumination (less than the minimum necessary illumination intensity).
- The time necessary for full charge differs, depending on the charging conditions. If this Super Caliper is left unused in an illumination of 500 lux (usual for manufacturing environments), it takes approximately one hour to reach full charge.

Fluids against which this caliper is protected (for reference)

* It has been proven that this Super Caliper operated satisfactorily during IP67-level testing using the following fluid products supplied by major manufacturers.

Water-insoluble cutting fluids
- Chlorine active sulfur
- Chlorine inert sulfur
- Active sulfur
- Inert sulfur

Water-soluble cutting fluids
- Emulsion
- Soluble
- Solution

Electrical discharge fluids

Brake fluid

Cleaning fluid

Water-soluble cleaning fluid

Rust-preventive oil