Haefely Hipotronics recently obtained accreditation to calibrate and certify PD calibrators from SCS, Switzerland (Swiss equivalent of DKD, Germany). The KAL 9520 has been designed to exceed the normal requirements of a PD calibrator. Its wide range (from 100 fC to 50 nC), its small injection capacitor and its advance features (double pulse, polarity pulse selection, internal and external synchronization, linear range selection, etc.) make the KAL 9520 unique.

The high voltage step generator included into the KAL 9520 allows the use of extremely low injection capacitors (1 pF up to 200 pC) as recommended in the upcoming standards.

Its fast pulse rise time (< 35 ns) creates a complete flat response of the calibration pulse in the frequency domain long beyond the IEC recommended measuring band.

The PD calibrator is easily controlled from its touch screen and all options are selected by the user oriented menu.

**FEATURES**
- SCS (IEC 17025) calibration certificate (optional)
- Any Selectable PD level
- Ultra wide range (0.1 pC to 50000 pC)
- Number of pulses is selectable
- Selectable pulse polarity
- Hand held, Rechargeable battery
- Touch screen
- Programmable frequency or light triggered

**BENEFITS**
- No need for different PD calibrators: The KAL9520 includes all one needs in a “regular” PD calibrator and adds all one would wish in a “reference” PD calibrator, like double pulse, pulse polarity selection, programmable repetition rate, any selectable PD value and number of pulses and pulse phase shift selection.
- Inspector and quality department friendly: The KAL 9520 is delivered with our traceable test certificate and as an option, a complete SCS (IEC 17025) test certificate can be provided.
- Compact and easy to use: The values and features are selected through an intuitive menu on its touch screen. Its compact size makes the calibrator easy to transport for checking installations before performing the PD test.

**PERFORMANCE CHECK OF MEASURING CHAIN**

With the advance features of the KAL 9520, inspectors and quality departments can easily perform a performance test (linearity and time response) of the PD measuring test system and truly trust the measuring result.
TECHNICAL SPECIFICATIONS

Signal generation

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full discharge range</td>
<td>100 fC to 50 nC</td>
<td>Logarithmic/Linear scale</td>
<td></td>
</tr>
<tr>
<td>Double impulse mode</td>
<td>Range:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Time interval in between pulses</td>
<td>100 fC to 500 pC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pulse Rise Time (10 % - 90 %)</td>
<td>200 ns to 500 μs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pulse Duration (10 % - 10 %)</td>
<td>≤ 20 ns</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>≤ 150 ns</td>
<td></td>
</tr>
<tr>
<td>Polarity</td>
<td>positive, negative bipolar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discharge tolerance</td>
<td>± 5 % or ± 50 fC</td>
<td>Discharge tolerance</td>
<td>± 50 fC</td>
</tr>
<tr>
<td>Rise time &quot;s&quot;</td>
<td>≤ 60 ns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time to steady state &quot;s&quot;</td>
<td>≤ 200 ns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step voltage duration &quot;μs&quot;</td>
<td>≥ 5 μs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulse synchronization</td>
<td>Light synchronization</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Internal synchronization</td>
<td>50 or 60 Hz</td>
<td></td>
</tr>
<tr>
<td>PRF (Light synchronization)</td>
<td>1 to 12 impulses/cycle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRF (Internal synchronization)</td>
<td>0.1 to 600 Hz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase shift setting with light synchronization</td>
<td>0° to 360°, step 1°</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Discharge levels

<table>
<thead>
<tr>
<th>Capacitance</th>
<th>Discharge level (Single impulse)</th>
<th>Discharge level (Double impulse or bipolar impulse)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 pF</td>
<td>0.1 pC to 200 pC</td>
<td>0.1 pC to 6 pC</td>
</tr>
<tr>
<td>10 pF</td>
<td>201 pC to 2 nC</td>
<td>7 pC to 60 pC</td>
</tr>
<tr>
<td>100 pF</td>
<td>2.1 nC to 20 nC</td>
<td>61 pC to 500 pC</td>
</tr>
<tr>
<td>200 pF</td>
<td>20.1 nC to 50 nC</td>
<td></td>
</tr>
</tbody>
</table>

Mechanical

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>0.8 kg (complete package 1.4 kg)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>120 mm x 200 mm x 42 mm (W x L x H)</td>
</tr>
<tr>
<td>Power Supply</td>
<td>100 - 240 V, 40 - 70 Hz</td>
</tr>
</tbody>
</table>

Applicable Standards

<table>
<thead>
<tr>
<th>Standard</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEC 60885-3:2015</td>
<td></td>
</tr>
</tbody>
</table>

SCOPE OF SUPPLY

KAL 9520 PD calibrator with rechargeable battery, charger and banana connection cables.

OPTIONS

KAL 9520/SCS (IEC 17025) calibration and certificate for the KAL 9520.