



KAL 9511

Basic Partial Discharge Calibrator

Datasheet



HAEFELY

Current and voltage – our passion

Designed by



General Description

Partial discharge calibrator KAL 9511 is a successor to the popular Tettex 9216. KAL 9511 covers a wide range of applications.

It is compact, easy to use and has the same long battery operation capability of Tettex 9216 but offers higher performance by using more than 10x smaller Injection Capacitance resulting in a higher SNR (Signal to Noise Ratio).

Its unique high-end design ensures flat response of the calibration pulse in the frequency domain far beyond the IEC-recommended measuring band.

The PD calibrator is easily controlled by two large buttons. Charge values are displayed on a large display together with battery status and light synchronization indication. An SCS calibration certificate can be delivered with the KAL 9511 upon request.

Features	Advantages
<ul style="list-style-type: none">▪ SCS (IEC 17025) calibration certificate (optional)	<ul style="list-style-type: none">☑ Guarantees the reliability of the partial discharge measuring chain due to the included traceable test certificate and the optional SCS (IEC 17025) calibration certificate.
<ul style="list-style-type: none">▪ Full compliance with IEC 60270:2000+AMD1:2015	<ul style="list-style-type: none">☑ Results reliability, plausibility, compliance and repeatability.
<ul style="list-style-type: none">▪ Optimized for type and routine tests▪ Selectable pulse polarity	<ul style="list-style-type: none">☑ Application oriented: Three different calibrator types provide sufficient charge ranges to cover all potential applications.
<ul style="list-style-type: none">▪ Robust and modern design▪ Large screen▪ Handheld	<ul style="list-style-type: none">☑ Ease of use

Applications

HAEFELY AG is accredited to calibrate and certify PD calibrators from SCS, Switzerland (Swiss equivalent of DKD, Germany). A calibration certificate can be delivered optionally with the KAL 9511.

- Power and distribution transformers
- Instrument transformers
- Rotating machines
- Switchgears (MV/HV/GIS)
- Surge arresters
- Bushings
- Cables (for Double Pulse see KAL 9520)
- Power capacitors
- Components testing
- Research and development

Scope of Supply

- KAL 9511 PD calibrator
- Banana connection cables
- Operating Manual

Technical Data

Signal generation			
	Type A	Type B	Type C
Full discharge range (logarithmic scale)	1 – 100 pC	10 – 1'000 pC	100 – 10'000 pC
	1.5 pF	15 pF	150 pF
Polarity	Positive or negative (full range)		
Discharge tolerance	± 5 % or ± 1 pC whichever is the greater		
Rise time ¹⁾	≤ 60 ns		
Time to steady state ¹⁾	≤ 200 ns		
Step voltage duration ¹⁾	≥ 5 µs		
Pulse synchronization	Light synchronization	50/60 Hz	
	Internal clock		
Pulse Repetition Frequency (PRF)	300 Hz (Light/Internal synchronization)		

¹⁾ Unipolar step voltage as per IEC 60270:2000+AMD1:2015

Environmental	
Operating temperature	0 °C ... +50 °C
Storage temperature	-20 °C ... +70 °C
Humidity	5 ... 90% r.h., non-condensing

Mechanical	
Dimensions (W x D x H)	84 x 190 x 35 mm (3.3 x 7.5 x 1.4 in)
Weight	0.5 kg (1.1 lb) – calibrator itself 2.5 kg (5.5 lb) – calibrator including a case and accessories
Battery	AA lithium 1.5 V battery non-rechargeable Typical operation time ≥ 4000 hours @ 100 pC
Protection Class	IP 50

Applicable Standards	
General	IEC 60270:2000+AMD1:2015
CE conformity	EMC Directive 2014/30/EU and RoHS Directive 2011/65/EU

Global Presence

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HIGH VOLTAGE



INSTRUMENTS



EMC

precision.

swiss made.