

# KERSTEN®



## Translation of the original operating instructions

### **IMPORTANT:**

Read diligently before use and keep for later reference.

For operating instructions in other languages, see [www.kersten.de](http://www.kersten.de)

# KERSTPEN

The test probe for KERSTEN charging and discharging systems

**KERSTEN item no.:** 25644  
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## **2. General**

### **2.1 Notes on the operating instructions**

These operating instructions contain important information on using the KERSTPEN.

Strict compliance with the safety warnings and handling instructions is a prerequisite to safe usage of the KERSTPEN.

Local accident prevention regulations and general safety rules pertinent to application of the tested KERSTEN products must furthermore be complied with.

Carefully study the operating instructions before commencing with any work! The instructions constitute a component of the product and must be kept in a designated place that will at all times be accessible to staff.

All the information, technical data, graphics and illustrations contained in these operating instructions are based on data available at the time of compilation.

We furthermore recommend that staff, after careful study of the operating instructions, undergo training and instruction by our qualified staff on the use of the KERSTPEN.

## 2.2 Explanation of symbols

Warnings are identified by symbols in these operating instructions. The individual notes are preceded by signal words to highlight the risk level. It is imperative that notes/warnings be heeded to avoid accidents, injury to persons and material damage.



### **Warning!**

... points out a potentially hazardous situation which, if not avoided, may lead to serious injuries and even death.



### **NOTE!**

... points out useful tips, recommendations and information to ensure efficient and smooth operation.

## 2.3 Limited liability

All the information and notes in these operating instructions were compiled taking into account applicable standards and regulations, state-of-the-art technology and the know-how and experience we gained over many years.

The manufacturer accepts no liability for damages caused by:

- disregard of the operating instructions
- improper use
- deployment of untrained staff
- unauthorised alterations
- technical modifications
- use of spare parts that are not approved
- the use of accessories other than the original

## 2.4 Warranty provisions

The warranty conditions are set out in a separate document in the sales documentation.

## 2.5 Customer service

Our Sales team will gladly assist you with any technical issues you may have.

Telephone: +49 (0) 761 / 47944 0

Fax: +49 (0) 761 / 47944 99

E-mail: [info@kersten.de](mailto:info@kersten.de)

Internet: [www.kersten.de](http://www.kersten.de)



### NOTE!

Please provide the identification of your apparatus when contacting our customer service. This information is given on the nameplate.

## 3. Safety

### 3.1 Intended use

The KERSTPEN is a multi-purpose test instrument measuring AC or DC high voltage on KERSTEN charging and discharging products, without making contact.

The KERSTPEN is an accessory for KERSTEN charging and discharging systems designed exclusively for use by qualified electricians familiar with and trained on the use and operation of KERSTEN charging and discharging systems. A qualified electrician is a suitably technically qualified person with the knowledge and experience needed to recognise and avoid potential electrical hazards.

**Warning!**

Dangers of improper use!

Any improper or other than normal use of the KERSTPEN may lead to hazardous situations!



It is therefore imperative to:

- use the KERSTPEN exclusively for the purposes described above.
- refer to Chapter 5 (Application) for further information on the proper use of the KERSTPEN.
- always test the KERSTPEN with a known voltage before testing.

**NOTE!**

Never operate the apparatus when under the influence of alcohol, medication or drugs!

### 3.2 Responsibility of the operating company

In addition to the occupational safety notes given in these operating instructions, the safety, accident prevention and environmental protection regulations applicable where the KERSTPEN will be used shall also be observed. Of particular importance:

- The operating company must be familiar with the applicable industrial safety regulations and must perform a risk assessment to identify additional hazards caused by specific working conditions where the KERSTPEN will be applied.
- The operating company must ensure that all persons using the KERSTPEN will also be familiar with and trained in the use of KERSTEN charging and discharging systems.
- The operating company must ensure that all users of the KERSTPEN have read and fully familiarised themselves with the operating instructions.
- The company must furthermore regularly train and inform the users of the hazards associated with using the KERSTPEN.

The operating company will furthermore also be responsible to ensure that the KERSTPEN will always be in a technically sound condition.

### Warning!

Risk of injury to those inadequately qualified!



Improper use of the KERSTPEN may lead to serious material damage and personal injury. It is therefore imperative that:

- specific tasks will be carried out exclusively by the persons named in the specific chapters of these instructions.
- specialists are immediately consulted in cases of doubt.

## 4. Technical data

Supply voltage	V DC	3 (two 1.5 V AAA batteries)
Measuring instruments category	CAT	1 (please observe Chapter 5)
Weight	g	40 (incl. batteries)
Dimensions	L Ø	148 mm max. 17 mm
Protection class	IP	64
Relative humidity	%	80% @ 30°C 50% @ 40°C
Operating temperature	°C	-20...50
Display		LED

## 5. Application

The KERSTPEN shall be used exclusively by qualified electrical staff familiar with and trained on KERSTEN discharging and charging



systems. The KERSTPEN is designed exclusively for functional tests on KERSTEN charging and discharging systems.

The KERSTPEN will indicate whether high voltages exist on KERSTEN charging and discharging components. The instrument is not suited for testing of the performance of KERSTEN charging and discharging components.

Since KERSTEN charging and discharging products are tested at high voltage, the KERSTPEN must maintain the following minimum safe distances to the high-voltage needles of KERSTEN charging and discharging products.



**Warning!**

Risk of injury unless minimum safe measuring distances are maintained.

Improper use of the KERSTPEN may lead to serious material damage and personal injury.

Operating voltage	Minimum safe measuring distance
3 kV	5 mm
4 kV	7 mm
6 kV	12 mm
10 kV	20 mm
25 kV	55 mm

KERSTEN charging and discharging assemblies with components with inaccessible high-voltage needles must be tested with the KERSTPEN in direct contact with the needles. The same applies to all high-voltage cables and high-voltage generators.

For functional testing of the KERSTEN charging and discharging assemblies, the KERSTPEN must maintain the above minimum distances to the test object, high voltage switched on. The tip of the KERSTPEN will light up red if the component functions properly.

Check the following if the KERSTPEN tip does not light up – see Chapter 6.

## 6. Troubleshooting

Possible cause	Action	Note
Component to test not in operation	Switch on high-voltage supply. Check plug connection.	Refer to the relevant operating instruction for notes on checking the KERSTEN charging and discharging systems.
Voltage on component to test too low	Check power supply.	
Measuring distance too long	Do not exceed the measuring distance given in Chapter 5 too much.	
Batteries flat	Replace batteries and test KERSTPEN on a known voltage.	Please refer to Chapter 4 for the batteries required.
Component to test is faulty	Contact KERSTEN.	See Chapter 2.5 Customer service.

## 7. Disposal

### 7.1 Batteries

The German Battery Ordinance obligates every consumer to return all used and flat primary batteries and secondary batteries. Disposal via household waste is prohibited. Old primary and secondary batteries may be handed in at public communal collection points and any points selling such batteries, free of charge.

### 7.2 KERSTPEN

The device is not allowed to be disposed of in the household waste. You may return both the supplied battery and the KERSTPEN to KERSTEN after use.