

# KSZ 10B

Current Probe Calibrator

## Instruction Manual



Information in this publication supersedes that in all previously published material.  
Specifications are subject to change without notice.

## **Manufacturer**

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## **Warranty**

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PMK GmbH warrants this oscilloscope accessory for normal use and operation within specifications for a period of two (2) years from date of shipment and will repair or replace any defective product which was not damaged by negligence, misuse, improper installation, accident or unauthorized repair or modification by the buyer. This warranty is applicable only to defects due to material or workmanship. PMK GmbH disclaim any other implied warranties of merchantability or fitness for a particular purpose. PMK GmbH will not be liable for any indirect, special, incidental, or consequential damages (including damages for loss of profits, loss of business, loss of use or data, interruption of business and the like), even if PMK GmbH has been advised of the possibility of such damages arising from any defect or error in this manual or product.



(EC conformity marking)

This electronic product is classified within the WEEE/ RoHS\* category list as monitoring and control equipment (category 9). Category 9 products are exempted from the restrictions under the scope of the RoHS directive.

Your help and efforts are required to protect and keep clean our environment. Therefore return this electronic product at the end of its life either to the manufacturer or take care of separate WEEE collection and professional WEEE treatment yourself. Do not dispose as unsorted municipal waste!

\* EC Directives:

- |                           |   |   |
|---------------------------|---|---|
| WEEE Directive 2002/96/EC | - | Waste Electrical and Electronic Equipment   |
| RoHS Directive 2002/95/EC | - | Restriction of the use of certain Hazardous Substances in Electrical and Electronic Equipment |

## **Safety Information**

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To avoid personal injury and to prevent fire or damage to this product or products connected to it, review and comply with the following safety precautions. Be aware that if you use this instrument in a manner not specified the protection this product provides may be impaired.

**Only qualified personnel should use this instrument.**



**Warning:**

Dangerous voltages capable of causing death are present when using this instrument.  
Use extreme caution when handling, testing and adjusting.

**Connect and disconnect properly.**

Connect the probe output to the measurement instrument before connecting the probe to the generator.  
Disconnect the probe from the generator before disconnecting the probe from the measurement instrument.  
+200 Volts lie against the red safety connector and earth ground. Make sure the calibrator is turned off while removing or exchanging the contact bar.

**Keep away from live circuits.**

Avoid open circuitry. Do not touch connections or components when power is present.

**Do not operate with suspected failures.**

Refer to qualified service personnel.

**Indoor use only.**

Do not operate in wet/damp environment. Keep product surfaces dry and clean.

**Do not operate the product in an explosive atmosphere.**

**Do not modify the instrument.**

**Adapt to the respective safety regulations at all time.**

**Always make sure the instrument is connected to earth ground.**

**Functionality:**

The functionality of the KSZ 10B is described by the simplified diagram ( Fig. 1).

By a fast noninductive switching transistor a pulsed current is generated from a condenser bank through an exact resistor. The value of the pulsed current is determined by the value U1 and the value of resistance R1. U1 is stabilized.

At the contact bar a clamp device can be connected.

Current transformers can be connected via power lead to the safety connectors.

**Simplified diagram of the Current Probe Calibrator KSZ 10B:**

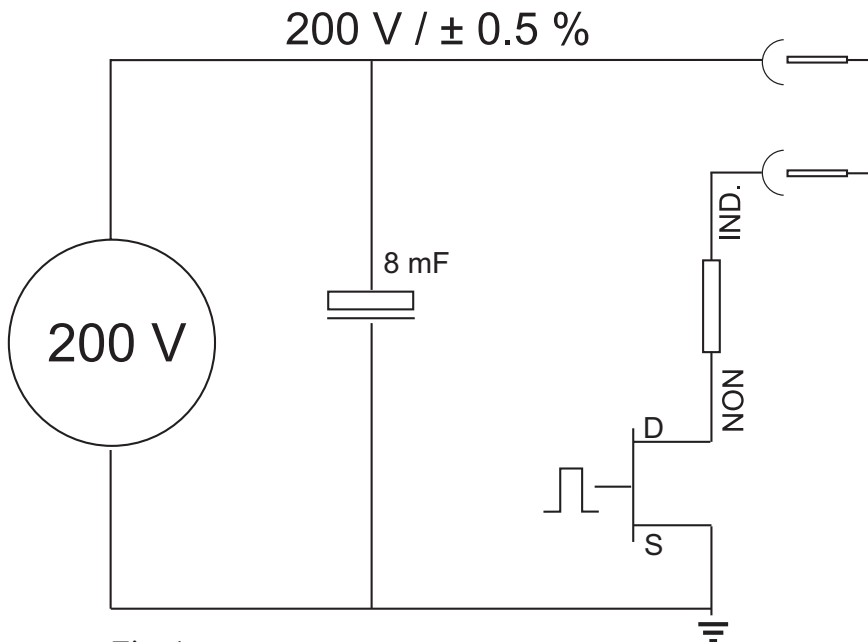
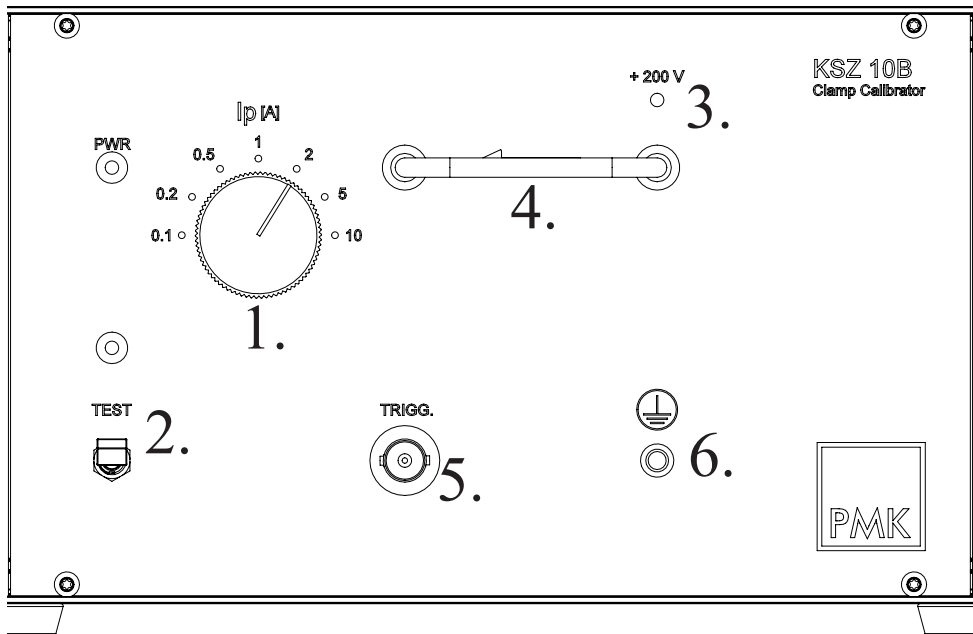


Fig. 1



1. "Ip (A)" rotary switch from 0.1 A up to 10 A
2. "TEST" trigger switch and indicator LED
3. "200 V" LED
4. Contact Bar for Clamp or Hall device
5. Trigger Output
6. Earth ground

Make sure the Calibrator is warmed up before testing. In order to counteract temperature drifts while testing, let the unit warm up by pulsing continuously for one minute prior to your tests. Follow the general instructions on how to use this instrument for further information.

1. Turn on the KSZ 10B by pressing the switch at the backplate.  
Notice that the LED "**PWR**" at the front of the calibrator is lit.
2. Wait until the LED "**200 V**" is lit ( approx. 20 seconds)
3. Connect Clamp or Hall device to the contact bar.  
(In case of Hall device remove the bar by pulling it slowly out of its sockets.)
4. Connect Trigger output to an oscilloscope if needed.
5. Set desired value on rotary switch "**Ip (A)**" - do not switch while testing!
6. Activate trigger switch "**TEST**" to start the test. Notice that the red LED "**TEST**" is blinking.

## **Specifications**

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Square wave current output (switchable)	0.1/ 0.2/ 0.5/ 1.0/ 2.0/ 5.0/ 10.0 A
Accuracy	± 2 %
Square Wave pulse width	1 msec.
Drooprate	1 % / 1 msec.
Rise time	16 - 34 nsec. <sup>(1)</sup>
Overshoot	< 2 %
Repetition frequency	1 Hz
Trigger output	approx. 10 V / 100 nsec.
Power supply voltage	90 - 250 V AC / 50 - 60 Hz
Dimensions (L x W x H)	approx. 370 x 240 x 140 mm

(1) Depending on selected current range

## **Scope of Delivery**

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**KSZ10B**

The following items are included in the scope of delivery. Please check the delivery for completeness. If any item is missing, send a message to our service department and we will send you the item immediately.

<b>Item</b>	<b>Qty.</b>
Generator	1
Power cord	1
Instruction manual	1

## **Ordering Information**

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<b>Version</b>	<b>Order-No.</b>
US	894-001-0US
EU	894-001-02A