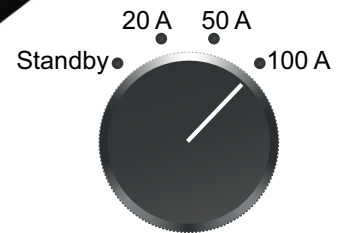




Probing Solutions.
Made in Germany.

EN



KSZ 100 D

Calibration Generator for Current Probes
20 A to 100 A

Datasheet



About the Probe Calibration Generator

The calibration generator K SZ 100D generates rectangular pulses of 20 A to 100 A with a pulse duration of 1 ms, or 0.5 ms at 100 A. The pulse current flows through a demountable current bar on the front panel. Current clamps and converters are contacted to this bar. Output current, pulse width and pulse period can be configured via remote control.

The device is used for HF and DC control of current clamps and current transformers and due to the accuracy of its signals for calibration. Both calibration processes can be performed in one step only. Remote control via USB or GPIB is possible.

Specifications

| | K SZ 100 D |
|--|---|
| Order number | 894-010-D00 |
| Electrical Specifications | |
| Current pulse (square wave) ¹ | 20 A - 100 A |
| Accuracy | ±2% |
| Pulse width ¹ | 1ms (20 A, 50 A), 0,5 ms (100 A), 10 μs - 2000 μs |
| Repetition frequency ¹ | 500ms - 5 s |
| Droop rate | 1% / ms |
| Rise time (current dependent) | 15 ns - 80 ns |
| Overshoot | <2% |
| Trigger output (low active) | 15 V _{peak} |
| Trigger pulse width | 100 μs |
| Mains voltage | 100 V - 240 V AC, 50 Hz - 60 Hz |

| Mechanical Specifications | |
|----------------------------------|--------------------------|
| Weight | 5500 g |
| Dimensions (W x H x D) | 235 mm x 140 mm x 375 mm |

| Environmental Specifications | | |
|-------------------------------------|---------------|---|
| Altitude | operating | up to 2000 m |
| | non-operating | up to 15000 m |
| Temperature Range | operating | 0 °C to +55 °C |
| | non-operating | -40 °C to +71 °C |
| Maximum Relative Humidity | operating | 80 % relative humidity for temperatures up to +31 °C, decreasing linearly to 40 % at +50 °C |
| | non-operating | |

Functionality, Schematic

Functionality:

The functionality of the KSZ100D results of the schematic.

The pulse current is generated from a capacitor battery flowing through a precise non-inductive resistor R1 and a fast switching transistor. The value of the pulsed current is determined by the voltage U1 and the resistance R1. U1 is stabilized.

At the contact bar a clamp device can be connected.

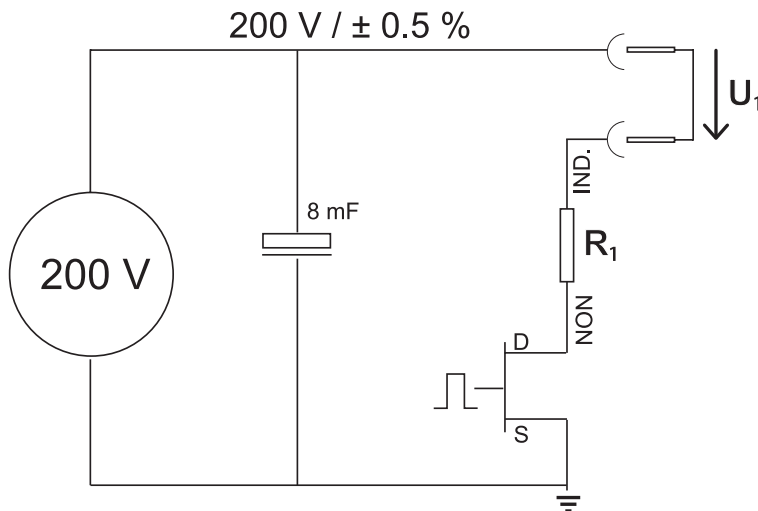
Current transformers can be connected via power lead to the safety connectors.

Internally a resistor of 200Ω is built into the outputs. It serves as short-circuit protection and is normally destroyed in case of a short circuit of the device. It must be replaced afterwards.

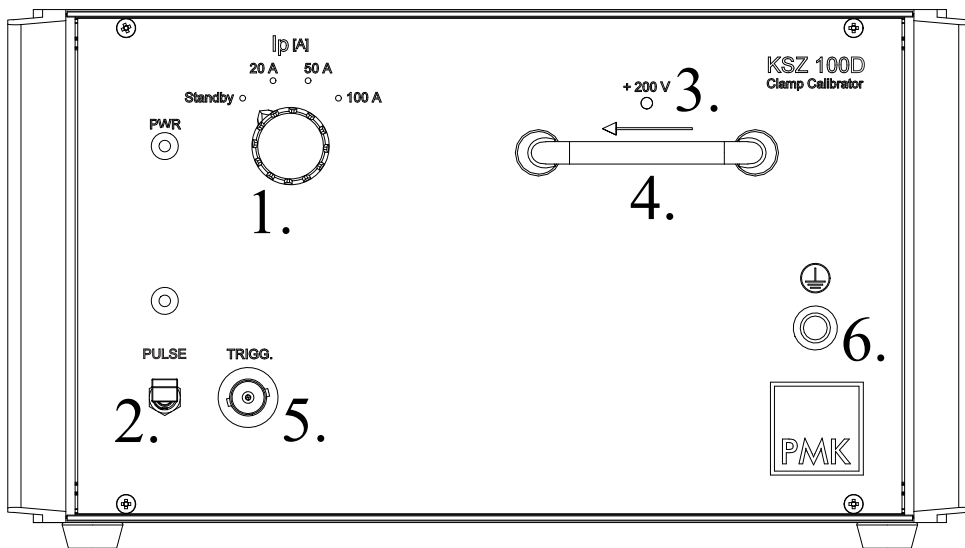
The ground connection of a probe or divider must be connected to the ground socket.

The charging voltage can be measured at the BNC socket with an digital voltmeter. The division ratio at the BNC socket is 1000:1. The output is buffered by an operational amplifier. The output current is maximum 10 mA.

Schematic KSZ 100D:



User Interface



1. Rotary switch "Ip (A)" from 20A up to 100 A
2. "PULSE" trigger switch and indicator LED
3. LED „200V“
4. Contact bar for current clamp or hall device
5. Trigger output
6. Earth ground

Scope of Delivery

| Item | Qty | Item | Qty |
|------------|-----|-------------------------|-----|
| Generator | 1 | Instruction Manual | 1 |
| Power Cord | 1 | Calibration Certificate | 1 |

Option for KSZ 100D

| Options | Order No. |
|---|------------|
| Interlock | INTERL-KSZ |
| Control cable (2m) for connection to a closing contact (protective cover). Connection to the device via LEMO-Push-Pull connector on the back of the device. | |

Manufacturer

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