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TK 100C

Probe Calibrator

Datasheet



TK 100C DATASHEET

About the TK100C Probe Calibrator

The TK100C facilitates DC, LF and HF adjustment of HV-probes.

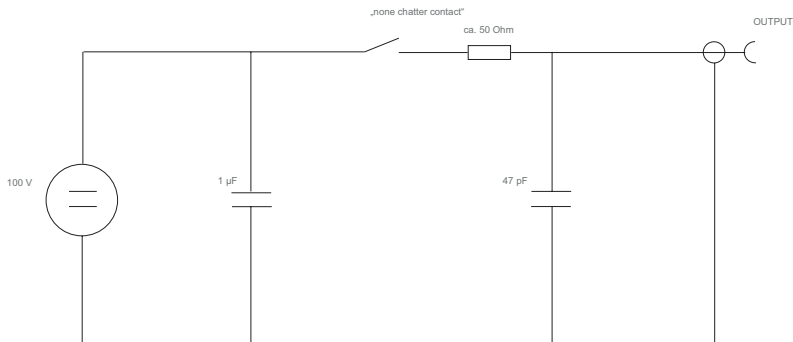
Mode of Operation

The function of TK100C can be seen from the circuit principle.

A stabilized 100 V DC source loads a 1 μ F capacitor. A „none chatter contact“ connects the voltage to a RC network of approx. 50 Ω and 47 pF. The rise time between 10% and 90% is approx smaller 6 ns. The duration of the square wave pulse is 5 ms.

For optimum results the HV-probe or divider should be connected coaxial.

Picture 1: circuit principle



TK 100C			
Order-Number	896-235-000		
Electrical Specifications			
Squarewave output voltage	+100 V \pm 0.5%	Repetition Rate	100 Hz
Risetime	< 6 ns	Pulse Width	5 ms
Overshoot	< 3 %	-	-
Mechanical Specifications			
Dimensions	135 x 30 x 70 mm	Weight (probe only)	120 g
Environmental Specifications			
Altitude	operating	up to 2000 m	
	non-operating	up to 15000 m	
Temperature Range	operating	0° C to +50° 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	95 % relative humidity for temperatures up to +40° C	

Scope of Delivery

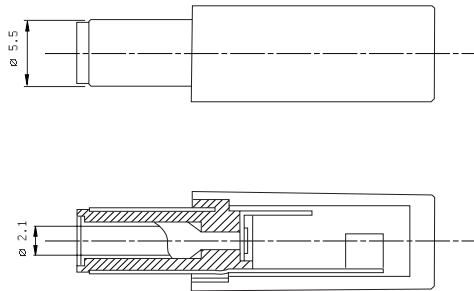
Items	Qty	Items	Qty
BNC Adapter 2.5	1	Wall plug transformer	1
BNC Adapter 5.0	1	Set wall plug transformer primary adapters (EU, US/JP, UK, AUS)	1
BNC Adapter 5.0-L	1	Trimmer Tool	1
BNC Adapter 4 mm	1	Instruction Manual	1
Probe-Calibrator TK 100C	1	-	-

Power Supply

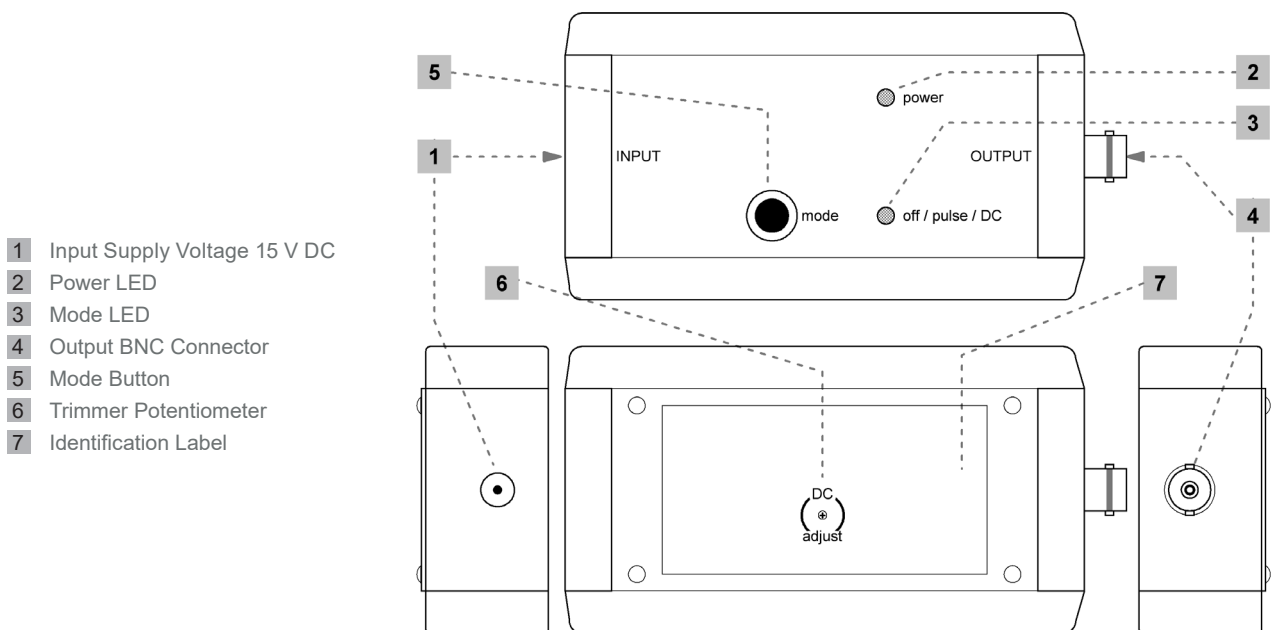
Input	Output
100 - 230 V AC, 50 Hz	15 V DC ≥ 0.3 A

Connector

DC Line connector with 2.1 mm diameter hole and 5.5 mm outer diameter.



How to use this instrument



Setup:

1. Connect the probe calibrator to the power supply and the power supply to mains.

NOTE: The Power LED (2) is lit,
The Mode Indicator LED (3) is off.
There is no voltage applied to the BNC Output (4)

2. Connect the probe to the BNC jack of the measuring instrument and adjust the scope-to-probe divider ratio.

4. Connect the probe to the BNC Output (4) of the TK 100C

Operation:

- By pressing the Mode Button (5) once, the TK 100C provides a 100 V square wave signal of 5 ms duration.

NOTE: The TK 100C is in pulse mode. The Mode Indicator LED (3) blinks.

- By pressing the Mode Button (5) again the TK 100C is set to DC Mode, providing 100 V DC

NOTE: The Mode Indicator LED (3) glows constantly.

- If the Mode Button (5) is pressed again the TK 100C will go into Standby once again.

NOTE: The Mode Indicator LED (3) is turned off again.

Make sure to set the trigger level at the scope to a decent value for best results.
(e.g. 50% of the pulse amplitude)

Manufacturer

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