

VOLTCRAFT®

CE

Ⓢ Operating instructions

Probe PP-80 for „DSO-3074“

Probe PP-100 for „DSO-3104“

Probe PP-200 for „DSO-3204“

Item no. 2181309

Item no. 2272387

Item no. 2181311

Intended Use

PP-80 / PP-100 / PP-200 is a passive, damped contact probe with low impedance. In connection with an oscilloscope it allows the visual displaying of electric factors and signals. The measuring lead is connected to the oscilloscope via two BNC sockets.

The maximum input variables indicated on the device must never be exceeded.

Any use other than that described above could lead to damage to this product and involves risks such as short circuits, fire, electric shock, etc.

No part of the product may be modified or rebuilt, and the housing must not be opened.

Measurements are not permitted in damp rooms or outdoors, nor under adverse environmental conditions.

Adverse environmental conditions are:

- Wet conditions or high air humidity,
- dust and flammable gases, vapours or solvents,
- thunderstorms or similar conditions such as strong electrostatic fields, etc.

This quick guide explains the safety measures that should be taken to make working with the device as safe as possible.

Always observe the safety notes included in these operating instructions.

Package contents

- Probe (contact probe)
- Spring hook attachment
- Ground wire with alligator clip
- 8x cable marking
- Cap
- Trim pin
- Operating instructions



Up-to-date operating instructions

Download the latest operating instructions via the link www.conrad.com/downloads or scan the QR code. Follow the instructions on the website.

Safety instructions



Please read through the quick guide carefully before using of the device. It contains important information on its correct operation.



The warranty will be void in the event of damage caused by failure to observe these safety instructions! We do not assume any liability for any resulting damage!

We shall not accept liability for damage to property or personal injury caused by incorrect handling or non-compliance with the safety instructions! In such cases, the warranty will be null and void.

- The unauthorised conversion and/or modification of the product is not allowed for safety and approval reasons. Do not disassemble the product.
- The product is not a toy. Therefore, be especially careful when children are around.
- First, connect the measurement cable to the oscilloscope; then connect the probe to the signal measuring circuit to be tested. After finishing the measurements, first disconnect the measurement leads from the circuit before you disconnect the cable from the oscilloscope.



- Take particular care when dealing with voltages exceeding 30 V/AC or 30 V/DC! Even at these voltages, there is a danger of fatal electric shock if you touch electric conductors.
- Do not use the device in rooms or under unfavourable ambient conditions in which there are or could be combustible gases, vapours or dust. These can distort the measurement.
- Use only measurement lines and accessories for the measurement that match the specifications of the oscilloscope.
- If a safe operation can no longer be assumed, the device must be put out of operation and secured against unintended operation. Safe operation can no longer be assumed if:
 - the product exhibits visible damage,
 - does not function any longer and
 - the unit was stored under unfavourable conditions for a long period of time or
 - it has been subjected to considerable stress in transit.
- Never switch the device on immediately after having taken it from a cold to a warm environment. The condensation that forms might destroy your device. Allow the device to reach room temperature before switching it on.
- Do not disassemble the product! There is risk of a life-threatening electric shock!
- Do not carelessly leave the packaging material lying around, since it could become a dangerous plaything for children.
- The device is intended only for dry interior rooms (not bathrooms or similar damp rooms). The device must not get wet or damp. There is risk of a life-threatening electric shock!
- On industrial sites, the accident prevention regulations of the association of the industrial workers' society for electrical equipment and utilities must be followed.
- Measurement instruments used at schools, training facilities, do-it-yourself and hobby workshops should not be handled unless supervised by trained, responsible personnel.
- If you have doubts about how the device should be operated or how to connect it safely, consult a trained technician.
- Please handle the product carefully. The product can be damaged if crushed, struck or dropped, even from a low height.
- Regularly check the technical safety of the device and the measuring cables, e.g., for damage to the casing or pinching of the cables etc. The device may in no case be opened or used, if the covers have been removed.
!RISK OF FATAL INJURY!
Never exceed the maximum admissible input values. Never touch circuits or parts of circuits when they may contain voltages greater than 30 V/AC rms or 30 V/DC! Danger to life!
- If in doubt about how to connect the device correctly, or should any questions arise that are not answered in these operating instructions, please contact our technical service or another specialist

Unpacking

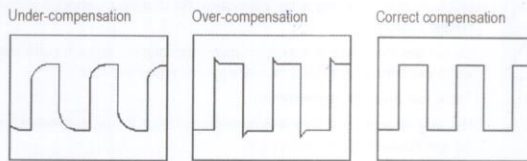
Check all the parts for completeness and damage after unpacking.



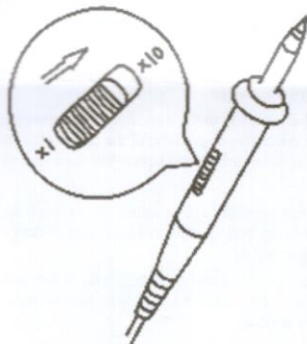
Damaged parts must not be used for safety reasons. In case of any damage contact our customer service.

Contact probe compensation

Before making a measurement with the contact probe, check the compensation. Most oscilloscopes have a rectangle generator with a 1 KHz testing signal for this purpose. If the compensation is necessary, it can be re-adjusted with the enclosed trim pin on the BNC connector.



Making measurements



Connect the contact probe with the oscilloscope.

Set the attenuation switch to the correct position.

Check the contact probe compensation and adjust it according to the instructions.



The measuring signal should only be applied to the internal conductor. The external conductor (reference earth) is connected to the earth potential (protective earth conductor)

- Check the contact probe and its measuring leads for any damage before each measurement. Never take any measurements if the protecting insulation is defective (torn, missing, etc.).
- To avoid electric shock, do not touch the connections/measuring points directly or indirectly during measurements.
- Never reach beyond the grip surface of the probes during a measurement process. There is danger of a life-threatening electric shock.
- Do not use the device shortly before or after a thunderstorm (lightning! / high-power surges!). Make sure that your hands, shoes, clothing, the floor, the measuring device and/or measuring lines, circuits and circuit components are always dry.

Cleaning

Before cleaning the device, disconnect it from the oscilloscope.



Live components may be exposed if the covers are opened or parts are removed, unless this can be done manually without tools.

Prior to cleaning or repairing the device, all lines must be detached and the device must be turned off.

- Do not use scouring, chemical or aggressive cleaning agents such as benzene, alcohol or such like. These might attack the surface of the device. Furthermore, the fumes are explosive and hazardous to your health. Moreover, you should not use sharp-edged tools, screwdrivers or metal brushes or the like for cleaning.
- For cleaning the device or the display and the measuring cables, use a clean, slightly damp, fuzz-free, antistatic cloth.

Disposal



Electronic devices are recyclable material and do not belong in the household waste.

Dispose of an unserviceable product in accordance with the relevant statutory regulations.

Technical data

General information	PP-80	PP-100	PP-200
Bandwidth (-3dB)	80MHz	100MHz	200MHz
System band width	X1: DC-6MHz X10: DC- 200MHz		
Attenuation	X1 / X10		
Rise time	X1: <50nS	X1: <50nS	X1: <50nS
	X10: <4,3nS	X10: <3,5nS	X10: <1,75nS
Input capacity	X1: 85pF-115pF X10: 18,5pF-22,5pF		
Oscilloscope input capacity	15pF - 40pF		
Input resistance	X1: 1M Ohm X2: 10M Ohm		
Max. input current	X1: <200V/DC or <200Vp/AC		
	X10: <600V/DC or <600Vp/AC		
Working conditions	-10 °C to +50 °C (15% to 80% rF)		
Storage conditions	-20 °C to +75°C (15% to 85% rF)		
Weight	55 g		
Size of contact probe	approx. 95 mm		
Coaxial cable length	approx. 120 cm		
Measuring category	CAT II		

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