

active PROBE HZ030

Manual

English



ACTIVE PROBE HZ030

All data valid at 23 °C after 30 minute warm-up

Electrical specifications

Attenuation ratio:	10:1 ± 0.5 % at DC
Dynamic Measuring Range:	
Range:	±8 V
System bandwidth ¹⁾ :	600 MHz (-3 dB)
Bandwidth (probe only):	1 GHz
Maximum rated input voltage:	20 V

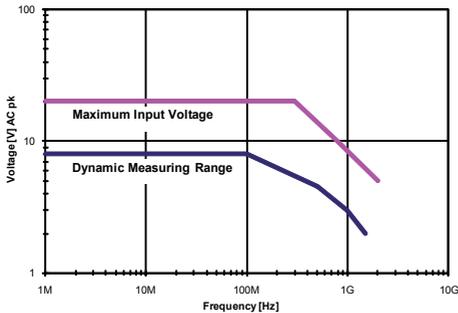
Max. Input Voltage and Dynamic Measuring Range

The **HZ030 Aktiv-Tastkopf** active probe is protected against electro-static-discharge voltage (ESD). Applying input-voltages outside the specified limits can result in destruction of the probe's amplifier.



Make sure you comply with the below input voltage vs. frequency chart to avoid input linearity errors and damage to the probe.

Input Voltage vs. Frequency



Electrical characteristics

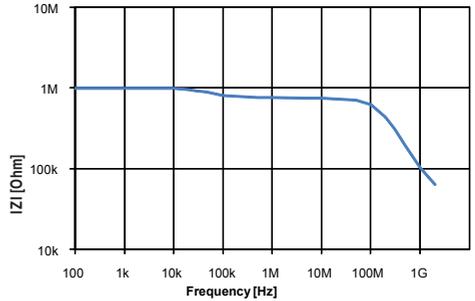
Input resistance (System):	>1 MΩ
Input capacitance (System):	0.9 pF (typical)
Oscilloscope Input Coupling:	50Ω AC / DC
Overshoot:	6% (typical)

Input Impedance



Note that the input impedance of the probe decreases as the frequency of the applied signal increases.

Typical Input Impedance



Mechanical characteristics

Weight (probe only):	96 g
Cable length:	1.3 m

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 +70° C
Maximum relative humidity	
operating:	80 %
	for temperatures up to +30° C
	decreasing linearly to 40% at 50° C

1) Connected to oscilloscope > 500 MHz

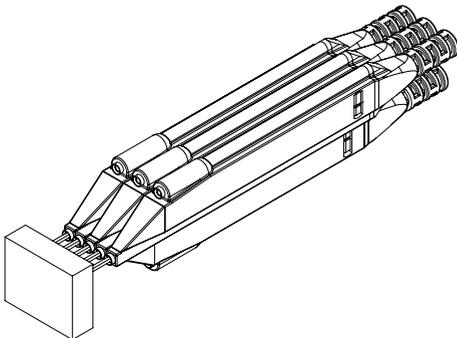
About the Probe HZ030

HAMEG Instruments GmbH presents a unique Inline Probing System – the **HZ030 active probe** which can contact adjacent square pins in 2.54 mm pitch simultaneously. The probe's housing is T-shaped so that many probes can be positioned next to each other in a never ending chain.

Like this a number of measurements can be performed at the same time. The **HZ030 active probe** is system-independent and its standard BNC connector can be plugged onto any measuring instrument with a 50Ω input.

With an input resistance of 1 MΩ and an input capacitance of 0.9 pF the **HZ030 active probe** is suitable for measurements in all frequency ranges. Compared to passive probes the **HZ030 active probe** offers a high input impedance into the GHz-range. Passive probes with their relative high input capacitance load the signal source already at frequencies above 100 kHz.

That's why the **HZ030 active probe** with its high input resistance and its low input capacitance is the ideal probe for most of your daily measurements.



The HZ030 testing adjacent pins in 2.54 mm Pitch

Included in delivery

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 this item immediately.

Item	Qty
Instruction Manual	1
Spring Tip 0.5 mm	1
Solid Tip 0.5 mm	1
Ground Blade	1
Marker Bands 4 colors	1
L-In Adapter	1
Ground Lead 6 cm	1
Ground Lead 12 cm	1
Ground Lead 90° 5cm	1
Ground Lead 90° 10cm	1
Power Supply	1
Picohook™ black	1
Picohook™ red	1
Protection Cap 2.5	1
self adhesive Cu Pad (2 x 2 cm)	2
Probe	1
Y-Lead Adapter to 0.8mm sockets	1
Z-Ground	1



Use ground lead only for connections to earth ground



The accessories provided with the probe have been safety tested. Do not use any other accessories than those "originally" provided.

Safety Information HZ030

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 probe assembly in a manner not specified the protection this product provides may be impaired.

- Only qualified personnel should use this probe assembly.
- Use only grounded instruments.
- Do not connect the probe ground lead to a potential other than earth ground. Always make sure the probe and the measurement instrument are grounded properly.
- Connect and disconnect properly.
- Connect the probe output to the measurement instrument and connect the ground lead to earth ground before connecting the probe to the circuit under test. Disconnect the probe input and the probe ground lead from the circuit under test before disconnecting the probe from the measurement instrument.

Observe probe ratings.

- Do not apply any electrical potential to the probe input which exceeds the maximum ratings of the probe.
- Make sure to comply with the voltage versus frequency derating curve on page 8.
- 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.

Safety symbols

Die folgenden Symbole können auf dem Produkt oder in dieser Bedienungsanleitung erscheinen:



Caution, risk of danger
Refer to manual



Caution, risk of electric shock



Earth (ground) terminal

General

Operating Basics

When using this active probe device make sure the measuring instrument is set to 50 Ω input coupling and the probe is connected to the power supply. In order to get best measurement results please make sure that the power cord does have the maximum possible distance to the probe tip.

Handling

Note that the probe cable is a sensitive part of the probe. Do not damage through excessive bending or pulling. Avoid mechanical shock to this product in general to guarantee accurate performance and protection.

Cleaning

To clean the exterior of the probe use a soft cloth moistened with either distilled water or isopropyl alcohol. Before use allow the probe to dry completely.

Warranty and repair

HAMEG instruments are subjected to a strict quality control. Prior to leaving the factory, each instrument is burnt-in for 10 hours. By intermittent operation during this period almost all defects are detected. Following the burn-in, each instrument is tested for function and quality, the specifications are checked in all operating modes; the test gear is calibrated to national standards.

The warranty standards applicable are those of the country in which the instrument was sold. Reclamations should be directed to the dealer.

Only valid in EU countries

In order to speed reclamations customers in EU countries may also contact HAMEG directly. Also, after the warranty expired, the HAMEG service will be at your disposal for any repairs.

Return material authorization (RMA):

Prior to returning an instrument to HAMEG ask for a RMA number either by internet (<http://www.hameg.com>) or fax. If you do not have an original shipping carton, you may obtain one by calling the HAMEG service dept (+49 (0) 6182 800 500) or by sending an email to service@hameg.com.

北京海洋兴业科技股份有限公司

北京市西三旗东黄平路 19 号龙旗广场 4 号楼(E座)906 室

电 话: 010-62176775 62178811 62176785

企业 QQ: 800057747

企业官网: www.hyxyyq.com

邮编: 100096

传真: 010-62176619

邮箱: info.oi@oitek.com.cn

购线网: www.gooxian.net



扫描二维码关注我们
查找微信企业号: 海洋仪器

Accessories

Accessories

2 selbstklebende
CU Masseplättchen
(2 x 2 cm)
2 adhesive CU Pads
(2 x 2 cm)



Z-Ground
Z-Ground



Ground Blade
Ground Blade



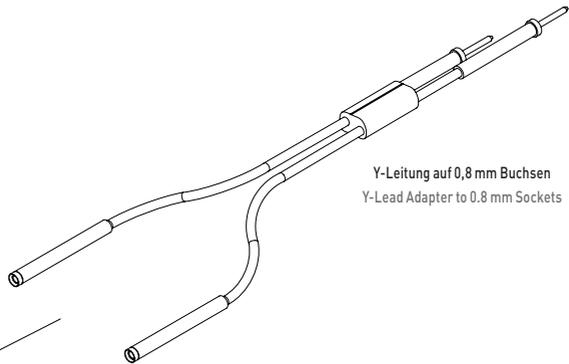
1 Federspitze
1 Spring Tip



1 feste Spitze
1 Solid Tip

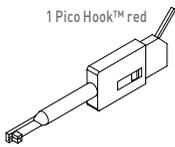


L- In Adapter
L-In Adapter

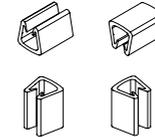
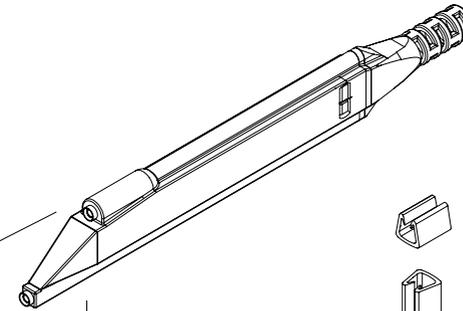
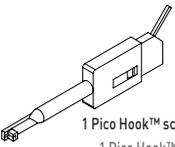


Y-Leitung auf 0,8 mm Buchsen
Y-Lead Adapter to 0.8 mm Sockets

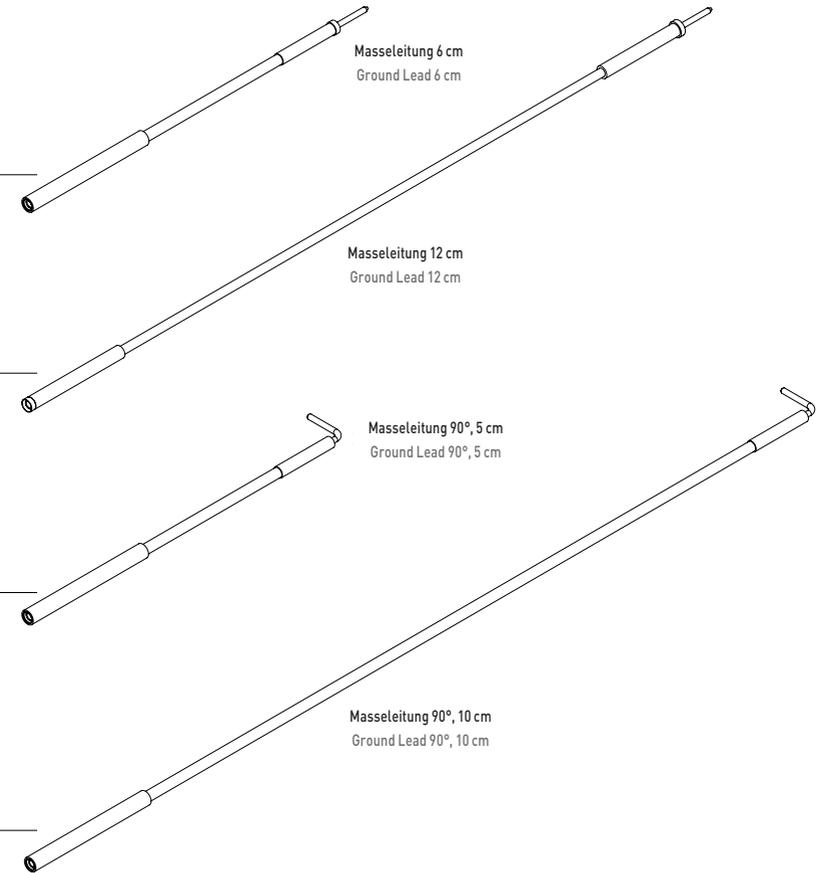
1 Pico Hook™ rot
1 Pico Hook™ red



1 Pico Hook™ schwarz
1 Pico Hook™ black



Kabelmarkierer (4 Farben)
Marker Bands (4 Colors)



Masseleitung 6 cm
Ground Lead 6 cm

Masseleitung 12 cm
Ground Lead 12 cm

Masseleitung 90°, 5 cm
Ground Lead 90°, 5 cm

Masseleitung 90°, 10 cm
Ground Lead 90°, 10 cm