

# 测试钩(针、探笔) TEST PROBE & CLIP

CAT等级值知多少

## 1. 什么是CAT等级

根据国际电子电工委员会IEC1010-1的定义,我们把电工工作的区域分为四个等级,分别称作CAT I, CAT II, CAT III和CAT IV。CAT等级是向下单向兼容的,也就是说,一款CAT IV的产品在CAT I,CAT II和CAT III下使用是完全安全的,但是一款CAT I的产品在CAT II,CAT III,CAT IV的环境下使用就不保证安全了。

## 2. CAT等级对用户意味着什么

CAT等级意味着对客户的人身安全承诺它不仅是的耐高压! CAT等级严格规定了电气工作人员在不同级别的电气环境中可能遇到的电气设备的类型以及在这样的区域中工作所使用的测量工具必须要遵循的安全标准。对于测试探针、探笔、香蕉插头、插座、测试导线、鳄鱼夹等来说,他们所标注的CAT等级表明了他们各自所归属的最高的“安全区域”,CAT后面的电压数值则表示了他们能够受到电压冲击的上限。例如一个CAT III 600V的香蕉插头,表示这样一个香蕉插头可以在CAT I, II和III区域安全使用,在这三个区域里如果表受到最高600V的电压冲击,表不会对人体安全产生威胁,但是这款香蕉插头在CAT IV域使用的时候,或者说受到700V的高压冲击的时候,就不能保证同样的安全了。CAT等级是向下单向兼容的,也就是说,一款CAT IV的产品在CAT I,CAT II和CAT III下使用是完全安全的,但是一款CAT I的产品在CAT I,CAT III,CAT IV的环境下使用就不保证安全了,可能发生漏电、燃烧威胁到你的安全。

## 3. AMASS的产品是怎么做的

AMASS的有CE认证的测试探针、探笔、香蕉插头、插座、测试导线、鳄鱼夹等产品都在规格书上标称了它的CAT等级和耐压值,并且整个产品的材质、机械性能、耐压设计都严格遵守CAT等级的要求。AMASS的产品经过第三方的安全测试,保证符合这个标称,100%保证在标称的CAT环境下使用安全性,100%保证能够承受所标称的高压冲击,且不会对人体产生任何伤害。

## 4. 你以后该怎么做

请了解并熟悉你的电气工作环境所属的CAT安全等级和耐压等级,并选择与其CAT等级和耐压等级对应的AMASS的产品。

CAT定义如下图:

IEC 61010-1 标准规定的测量类别



CAT I	测量不直接连接到电网电源的电路	加电池等
CAT II	测量直接连接到低电压电网电源的电路	测试通过电源插座供电的家电、办公和实验室设备
CAT III	测量建筑物内的电气配电设施	固定用电设备, 配电网子, 固定连接到配电网的设备
CAT IV	测量低电压配电设施的电源	电表, 电网终端, 主要的过压保护装置

对于多用途和测试仪器而言,CE声明证实,其符合欧洲(低电压指令和EMC指令)法规。CE声明是产品进入欧洲国家的前提条件。遵守通过实施以下标准来证实: IEC61010-1 (第三版), EN 61010-1(德国) (VDE分类 VDE 0411-1)。测量、检测和实验室使用的电气设备的安规认证在这些标准中有详细的描述,在1990年IEC的标准是第一个颁布的。

经过多年来的修改和完善 (A1 1992, A2 1995),多数标准的修订版(所谓第二版)于2001年出版发行。上述标准被收录到德国版: EN 61010-1 标准的第二次发行之中。目前,可在标准号EN 61010-1:2002。

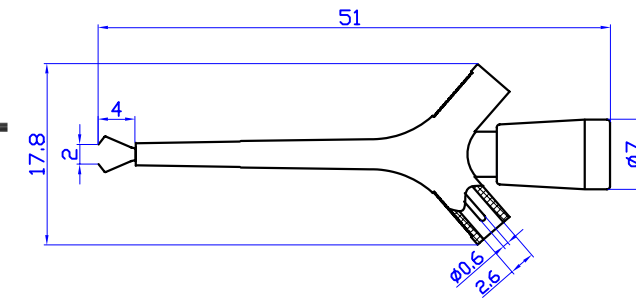
## • CAT 0,CATI,CATII,CATIII安全级别的含义:

- 注意, 测量设备的绝缘等级如1000V CATII, 600V CATII这些安全指标是IEEE非强制的要求, 可以由第三方自行或安全机构进行独立测试标定, 因此, 在测试时注意安全级别和量程范围是否相符, 否则会造成安全隐患! 以下是安全绝缘的分类, 必须提供相应的电压安全等级!
- 0类器具: 只靠基本绝缘提供防触电保护
- I类器具: 依靠基本绝缘+接地提供防触电保护
- II类器具: 依靠双重绝缘或加强绝缘提供防触电保护
- III类器具: 依靠安全特低电压提供防触电保护
- II类结构: 器具的部分结构属于II类
- III类结构: 器具的部分结构属于III类

Amass®

# 测试钩 ( 针、探笔 ) Test Probe & Clip

20.132. \*



材质

塑壳: PA  
主体: 铜  
表面: 镀金  
电气性能: 30Vac-60Vdc/Max.2A

Material

Insulator: PA  
Body: Brass  
Surface: Gold plated  
Rated voltage/current:

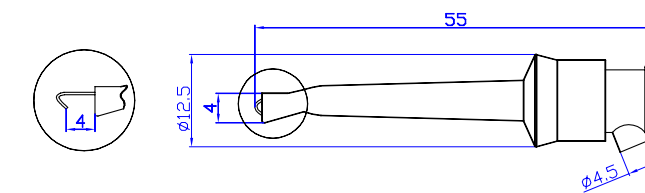
30Vac-60Vdc/Max.2A

Feature

Mini test clip with pin connection. Specially for the thin wires and small terminals.



20.135. \*



材质

塑壳: PA  
主体: 铜  
表面: 镀金  
电气性能: 30Vac-60Vdc/Max.10A

Material

Insulator: PA  
Body: Brass  
Rated voltage/current:

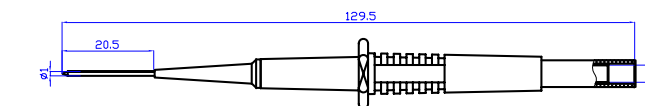
30Vac-60Vdc/Max.10A

Feature

Mini test clip with solder connection. Press with the good feeling and contact hook for wires up easily.



20.155. \*



材质

塑壳: PA  
主体: 铜和不锈钢  
电气性能: CATII 600V/Max.1A

Material

Insulator: PA  
Body: Stainless steel & Brass  
Rated voltage/current:

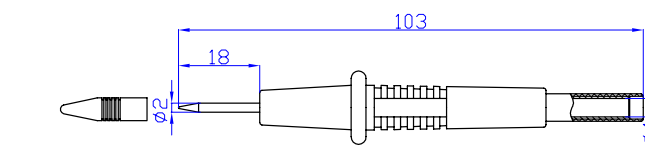
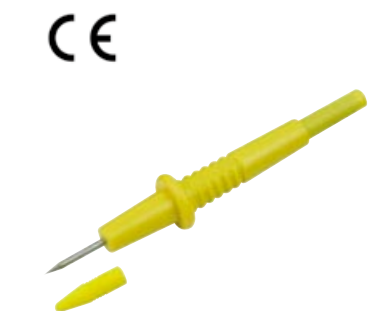
CATII 600V/Max.1A

Feature

Safety test probe with 4mm socket connection. Sharp stainless steel needle.



20.156. \*



材质

塑壳: PA  
主体: 铜和不锈钢  
电气性能: CATII 1000V/Max.10A

Material

Insulator: PA  
Body: Stainless steel & Brass  
Rated voltage/current:

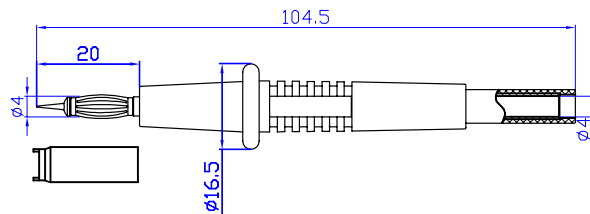
CATII 1000V/Max.10A

Feature

Safety test probe with 4mm socket connection. Sharp stainless steel tip with the perfectly protective cap.



20.157. \*



**Feature**

Safety test probe with 4mm socket connection. Spring-loaded tip with the protective cap.

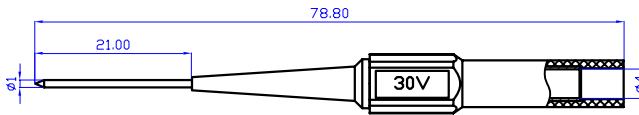
**材质**

塑壳:PA  
主体:铜  
弹片:镀铜  
表面:镀镍  
电气性能:CATII 1000V/Max.32A

**Material**

Insulator:PA  
Body:Brass  
Spring:Beryllium copper  
Surface:Nickel plated  
**Rated voltage/current:**  
CATII 1000V/Max.32A

20.160. \*



**Feature**

Safety test probe with 4mm socket connection. Sharp stainless steel needle.

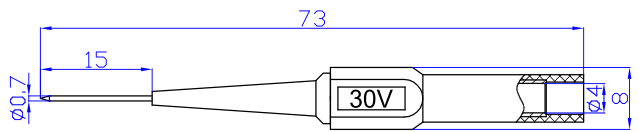
**材质**

塑壳:PA  
主体:不锈钢和铜  
电气性能:30Vac-60Vdc/Max.1A

**Material**

Insulator:PA  
Body:Stainless steel & Brass  
**Rated voltage/current:**  
30Vac-60Vdc/Max.1A

20.161. \*



**Feature**

Safety test probe with 4mm socket connection. Sharp stainless steel needle.

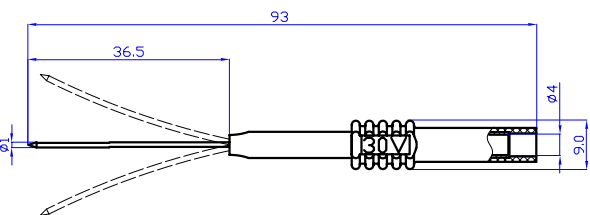
**材质**

塑壳:PA  
主体:不锈钢和铜  
电气性能:30Vac-60Vdc/Max.1A

**Material**

Insulator:PA  
Body:Stainless steel & Brass  
**Rated voltage/current:**  
30Vac-60Vdc/Max.1A

20.162. \*



**Feature**

Safety test clip with 4mm socket connection. Long sharp stainless steel tip and flexible spring with the silicone tube can meet kinds of your request.

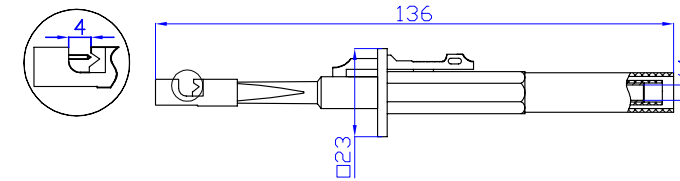
**材质**

塑壳:PA  
主体:不锈钢和铜  
电气性能:30Vac-60Vdc/Max.10A

**Material**

Insulator:PA  
Body:Stainless steel & Brass  
**Rated voltage/current:**  
30Vac-60Vdc/Max.10A

20.163. \*



**Feature**

Safety test probe with 4mm socket connection. Stainless steel tip can connect with the wire without cutting it.

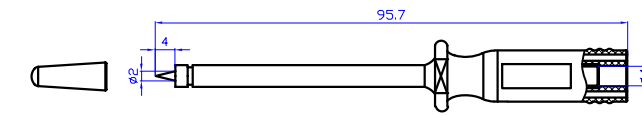
**材质**

塑壳:PA  
主体:不锈钢和铜  
电气性能:CATIII 1000V/Max.10A

**Material**

Insulator:PA  
Body:Stainless steel & Brass  
**Rated voltage/current:**  
CATIII 1000V/Max.10A

20.164. \*



**Feature**

Safety test probe with 4mm socket connection. Sharp stainless steel tip with the protective cap.

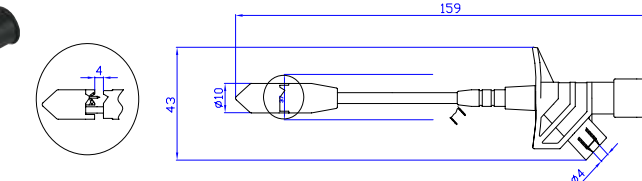
**材质**

塑壳:PA  
主体:不锈钢和铜  
电气性能:CATIII 1000V/Max.10A

**Material**

Insulator:PA  
Body:Stainless steel & Brass  
**Rated voltage/current:**  
CATIII 1000V/Max.10A

20.168. \*



**Feature**

Safety test probe with 4mm socket connection. Stainless steel tip can connect with the wire without cutting it.

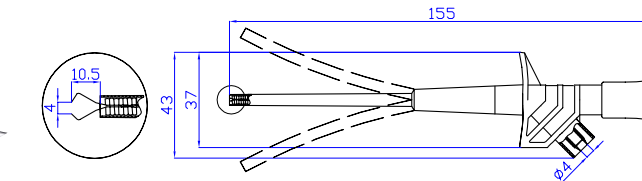
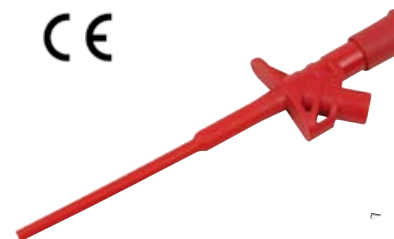
**材质**

塑壳:PA  
主体:铜和不锈钢  
表面:镀镍  
电气性能:CATIII 1000V/Max.10A

**Material**

Insulator:PA  
Body:Brass & Stainless steel  
Surface:Nickel plated  
**Rated voltage/current:**  
CATIII 1000V/Max.10A

20.169. \*



**Feature**

Safety test clip with 4mm socket connection. Flexible spring with the tube can contact the wires and terminals even at the corner.

**材质**

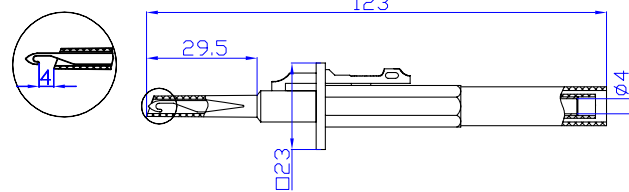
塑壳:PA  
主体:铜和不锈钢  
电气性能:CATIII 1000V/Max.10A

**Material**

Insulator:PA  
Body:Brass & Stainless steel  
**Rated voltage/current:**  
CATIII 1000V/Max.10A



20.170. \*

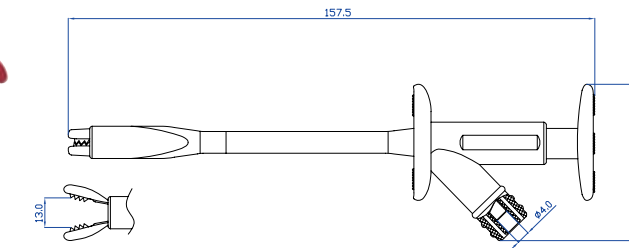
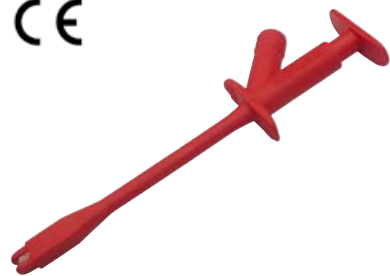


**Feature**  
Safety test clip with 4mm socket connection.  
The clip can connect the terminals easily.

**材质**  
塑壳 :PA  
主体 :铜和不锈钢  
电气性能 :CATIII 1000V/Max.20A

**Material**  
Insulator:PA  
Body:Brass & Stainless steel  
**Rated voltage/current:**  
CATIII 1000V/Max.10A

20.171. \*



**Feature**  
Safety test clip with 4mm socket connection. Flexible spring with the tube can contact the wires and terminals even at the corner.

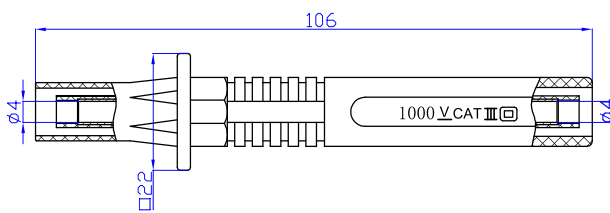
**材质**  
塑壳 :PA  
主体 :铜和不锈钢  
电气性能 :CATIII 1000V/Max.10A

**Material**  
Insulator:PA  
Body:Brass & Stainless steel  
**Rated voltage/current:**  
CATIII 1000V/Max.10A

20.211. \*



090.0058



**Feature**  
Safety test probe with 4mm socket connection on both end. Fuse inside.

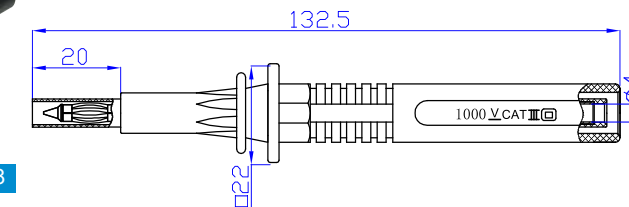
**材质**  
塑壳 :PA  
主体 :铜  
表面 :镀镍  
电气性能 :CATIII 1000V/Max.20A

**Material**  
Insulator:PA  
Body:Brass  
**Rated voltage/current:**  
CATIII 1000V/Max.20A

20.212. \*



090.0058

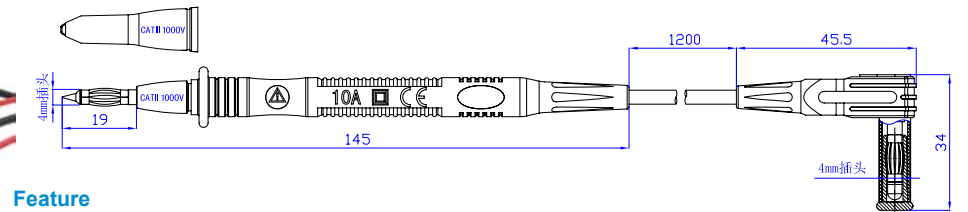


**Feature**  
Safety test probe with 4mm socket connection. Spring loaded side with the shrinkable tube. Fuse inside.

**材质**  
塑壳 :PA  
主体 :铜  
电气性能 :CATIII 1000V/Max.20A

**Material**  
Insulator:PA  
Body:Brass  
**Rated voltage/current:**  
CATIII 1000V/Max.20A

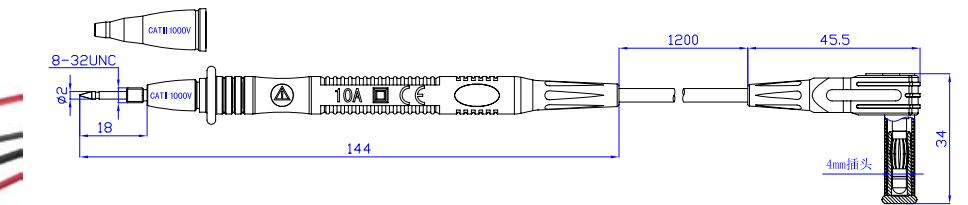
20.601. \*



**Feature**  
Safety test lead one end with the insulated 4mm spring loaded test probe and the other end with the insulated 4mm angled plug. Nickel plated plugs with the protective cap. Red+Black as a set.

**Rated voltage/current:** CATIII 1000V/10A 0.75mm<sup>2</sup> PVC 100

20.602. \*



**Feature**  
Safety test lead one end with the insulated test probe and the other end with the insulated 4mm angled plug. Nickel plated plugs with the protective cap. Red+Black as a set.

**Rated voltage/current:** CATIII 1000V/10A 0.75mm<sup>2</sup> PVC 100

