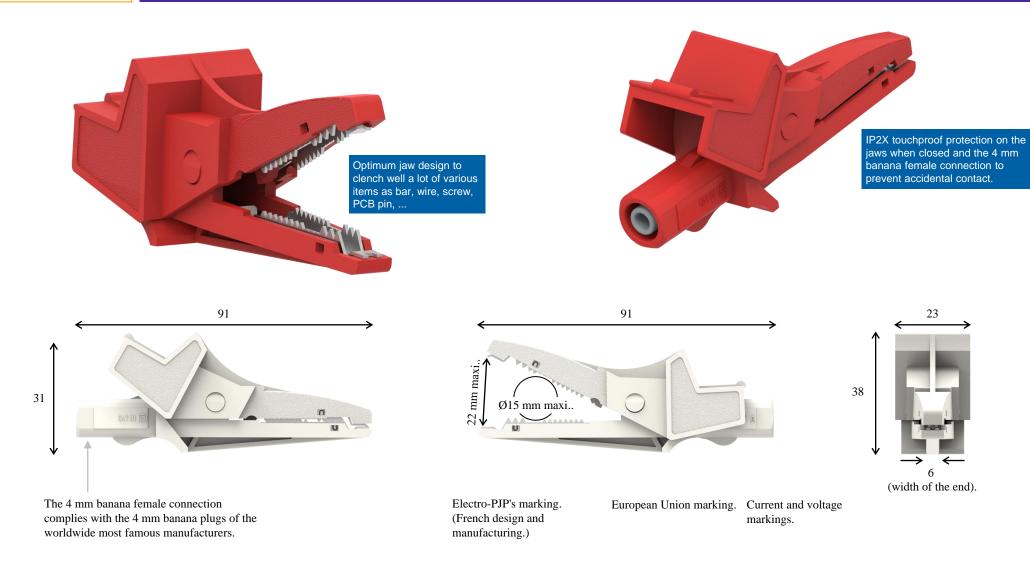


## **5004/LM-IEC**

Designation: Alligator Clip w/ 4 mm Banana (female) Jack (socket).

Applications: to grasp conductive parts safely. General purpose electric and electronic testing, controlling, and measuring.





## DATA SHEET (page 2 of 2).

## **GLOSSARY:**

**5004/LM-IEC** 

Designation: Alligator Clip w/ 4 mm Banana (female) Jack (socket).

ACCESSIBLE. Able to be touched with a standard test finger or test pin.

BASIC INSULATION. Insulation of HAZARDOUS LIVE parts which provides basic protection.

CAT II. Measurement or overvoltage category II. For measurement

performed on / equipment connected to the building wiring.

CAT III. Measurement or overvoltage category III. For measurement performed on / equipment connected to part of a building wiring installation.

CAT IV. Measurement or overvoltage category IV. For measurement performed on / equipment connected to the origin of the electrical supply to a

CLEARANCE. Shortest distance in air between two conductive parts.

CREEPAGE DISTANCE. Shortest distance along the surface of a solid insulating material between two conductive parts.

CTI. Comparative Tracking Index of the insulating material in accordance with IEC 60112

DOUBLE INSULATION. Insulation comprising both BASIC INSULATION and SUPPLEMENTARY INSULATION.

EN / IEC 60529. European / international standard regarding the degrees of protection provided by enclosures.

EN / IEC 61010-1. European / international standard regarding the safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General requirements.

EN / IEC 61010-031. European / international standard regarding the safety requirements for electrical equipment for measurement, control and laboratory use – Part 031: Safety requirements for hand-held probe assemblies for electrical measurement and test.

"LVD". European Directive 2014/35/EU on the harmonization of the laws of Member States relating to electrical equipment designed for use within certain voltage limits. (Usually called the Low Voltage Directive.)

MAINS. Low-voltage electricity supply system to which the equipment concerned is designed to be connected for the purpose of powering the equipment.

MAINS CIRCUIT. Circuit which is intended to be directly connected to the MAINS for the purpose of powering the equipment.

OVERVOLTAGE CATEGORY. Numeral defining a TRANSIENT

POLLUTION. Addition of foreign matter, solid, liquid or gaseous (ionized gases), that may produce a reduction of dielectric strength or surface

POLLUTION DEGREE. Numeral indicating the level of POLLUTION that may be present in the environment.

POLLUTION DEGREE 1. No POLLUTION or only dry, non-conductive POLLUTION occurs, which has no influence.

POLLUTION DEGREE 2. Only non-conductive POLLUTION occurs except that occasionally a temporary conductivity caused by condensation is expected.

REINFORCED INSULATION. Insulation which provides protection against electric shock not less than that provided by DOUBLE INSULATION.

"RoHS". European Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

SOLID INSULATION. Insulating materials.

SUPPLEMENTARY INSULATION. Independent insulation applied in addition to BASIC INSULATION in order to provide protection against electric shock in the event of a failure of BASIC INSULATION.

TRANSIENT OVERVOLTAGE. Short duration overvoltage of a few milliseconds or less, oscillatory or non-oscillatory, usually highly damped.

WORKING VOLTAGE. Highest r.m.s. value of the a.c. or d.c. voltage across any particular insulation which can occur when the equipment is supplied at rated voltage.

## Electrical safety

1500 V DC / 1000 V AC CAT II 1000 V CAT III 600 V CAT IV

The clip is designed to reduce the risk of short-circuits and arc flashes. For this purpose the metal jaws can not be touched when closed (IP2X). According to EN / IEC 61010-031:2015. 1500 V DC / 1000 V AC CAT II / 1000 V CAT III / 600 V CAT IV, reinforced insulation, 20 A (at +40 °C).

These specifications come from the creepage distances, clearances, accessible parts, and solid insulation of the clip. And the considered specifications of the environment are:

- pollution degree, 1 or 2;
- $\bullet$  relative humidity, 80 % maximum for temperatures up to 31 °C decreasing linearly to 50 % relative humidity at +40 °C;

• temperature range, -20 °C to +60 °C;

• indoor use; and

• altitude, 2000 m maximum.



Protective fingerguard. Keep behind this protective fingerguard to operate safely the clip while connecting to hazardous live voltages.

According to EN / IEC 60529. IP2X (touchproof) when the jaws are closed.

Operating temperature range	-20 °C mini., +60 °C maxi
Conformity	<ul> <li>European Directive "Low Voltage Directive" 2014/35/UE.</li> <li>International / European standard EN / IEC 61010-031:2015.</li> <li>European Directive "RoHS" 2011/65/EU.</li> <li>European REACH regulation n°1907 / 2006.</li> <li>International / European standard EN / IEC 60529.</li> </ul>
Environment	<ul> <li>"RoHS" compliant, Pb ≤ 4 % in conductor, Pb ≤ 0.1 % in insulator, Hg ≤ 0.1 %, Cr VI ≤ 0.1 %, Cd ≤ 0.01 %, PBB ≤ 0.1 %, and PBDE ≤ 0.1 %.</li> <li>REACH compliant, no substances from the candidate list of SVHC for authorisation at mass concentrations greater than 0.1 %.</li> </ul>
Materials	Conductors: nickel-coated steel, tinned steel, and brass. Insulators: please contact us.
Colors	Black Red Yellow Green Blue White G/Y Brown
Weight	0.023 kg.
Origin	Designed and manufactured in France.
Reliability benchmark	Year of 1st placing on the market 1995.



Contact us at :

sales@electro-pip.com

+33(0) 384 821 330

www.electro-pjp.com

ELECTRO-PJP ZI «Charmes d'Amont» 13 rue de Madrid 39500 TAVAUX FRANCE