

402-IECIV



DATA SHEET (page 1 of 2).

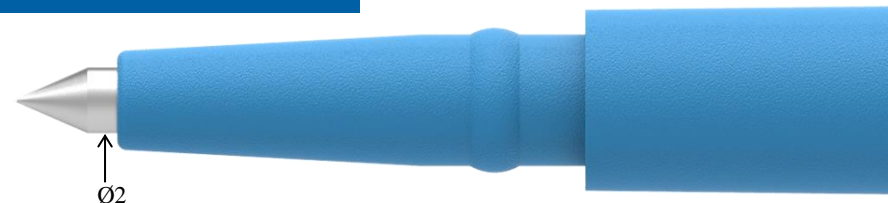
Designation : Sharp Steel Tip Probe Body w/ 4 mm Banana (female) Jack.

Applications : to measure voltages up to 1000 V CAT IV on contacts which are small, difficult to access, remote, coated with oxidation, paint, dust, enamel, ...

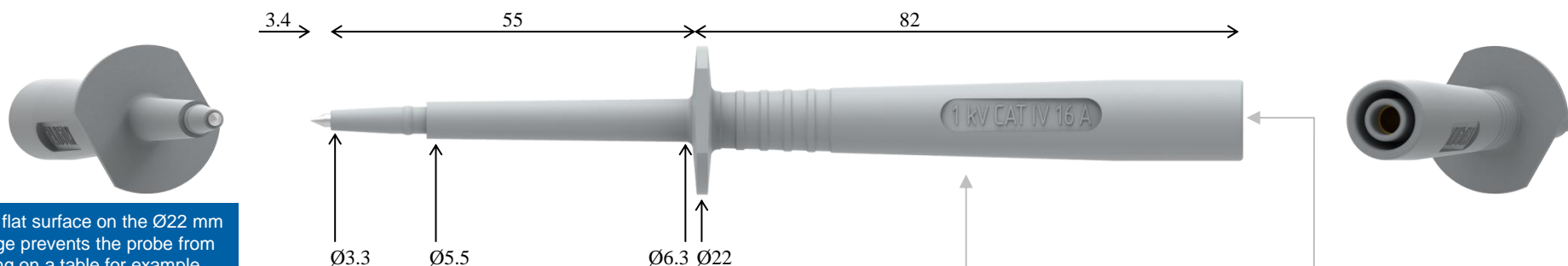
Because the tip is sharp and can hurt the probe is provided with a removable insulating sleeve which covers the tip.



Sharp steel tip to scrape coatings.



The probe complies with the CAT III and CAT IV (and CAT II) environments. The CAT III and CAT IV include higher electric energy than the CAT II so any short-circuit in the CAT III or CAT IV is very hazardous. But because of the low length of its conductive tip, the probe reduces the risk of short-circuits between electric potentials. By reducing the risk of short-circuit, the probe complies with the CAT III and CAT IV environments.



The flat surface on the Ø22 mm flange prevents the probe from rolling on a table for example.

Electro-PJP's marking.
(French design and manufacturing.)

Voltage and current markings.

European Union marking.

The 4 mm banana female connection complies with the 4 mm banana plugs of most of the worldwide most famous manufacturers.

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DATA SHEET (page 2 of 2).

Designation : Sharp Steel Tip Probe Body w/ 4 mm Banana (female) Jack.

Electrical safety

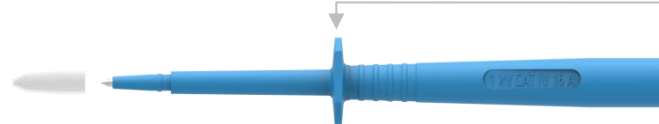
According to EN / IEC 61010-031:2015+A1:2018. 2000 V CAT II / 1500 V CAT III / 1000 V CAT IV, reinforced insulation, 16 A (at +40 °C).

2000 V CAT II
1500 V CAT III
1000 V CAT IV

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

- pollution degree, 1 or 2 ;
- relative humidity, 80 % maximum for temperatures up to 31 °C decreasing linearly to 50 % relative humidity at +40 °C ;
- temperature range, +5 °C to +40 °C ;
- indoor use ; and
- altitude, 2000 m maximum.

Fingerguard. Keep behind this Fingerguard to operate safely the product while connecting to hazardous live voltages (more than 30 V AC and 60 V DC).



Operating temperature range

-20 °C mini., +80 °C maxi. (please see above too).

Protection against the spread of fire

According to EN / IEC 61010-031:2015+A1:2018. Reinforced insulation.

Conformity

- European Directive "Low Voltage Directive" 2014/35/EU.
- International / European standard EN / IEC 61010-031:2015.
- European Directive "RoHS" 2011/65/EU.
- European REACH regulation n°1907 / 2006.
- European regulation 2017 / 821 "Conflict minerals".

Environment

- "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 %.
- REACH compliant, no substances from the candidate list of SVHC for authorisation at mass concentrations greater than 0.1 %.

Materials

Conductors : brass and steel. Insulators : please contact us.

Colors

Black Red Yellow Green Blue White
Brown Gray

Weight

0.019 kg.

Origin

Designed and manufactured in France.

Reliability benchmark

Year of 1st placing on the market 1994.

Packaging

Bag of 5 probes of the same color (default packaging).

GLOSSARY :

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 building.

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 61010-031:2008. 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 OVERVOLTAGE condition.

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

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.

Contact us at :

sales@electro-pjp.com

+33(0) 384 821 330

www.electro-pjp.com

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