

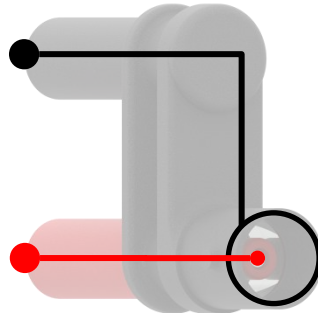
21130

Designation : Female BNC Connector to two 4 mm Banana (male) Plugs Adapter.

Applications : to connect safely a DMM (Digital MultiMeters) to BNC leads. General purpose electronic testing, controlling, and measuring.

How to use.

The 19 mm = 3/4 inch spacing between the two 4 mm banana male connections complies with the spacing between the banana sockets of most of DMM and power supplies.



Electrical connections.

4 mm banana black male connection ← → "ground" outer contact of the BNC connector.

4 mm banana red male connection ← → "signal" central contact of the BNC connector.

Although the bayonet lugs are not in metal to offer electrical safety, their durability is good because the insulating material includes glass fibers.

IP2X touchproof protection on the BNC connector and the 4 mm banana plugs to prevent accidental contact.

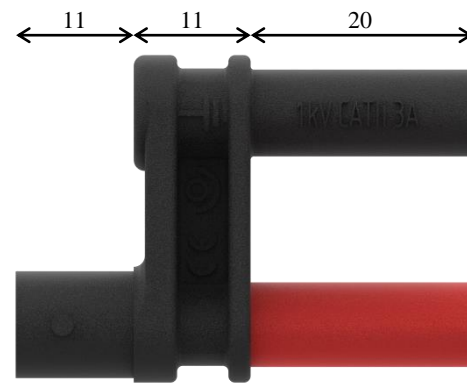


Although the adapter includes a BNC connector, it should not be used to supply high frequency signals because of its low bandwidth due to the 4 mm banana plugs. They introduce discontinuity and mismatch. The adapter offers no characteristic impedance (50 Ω, 75 Ω, ...). For this reason, it complies with any 50 Ω and 75 Ω (and other characteristic impedances) male BNC connectors. The benefit of the adapter is to connect male BNC connectors to 4 mm banana sockets.

Maximum voltages between the "ground" and "signal" contacts :
1000 V CAT II / 600 V CAT III / 300 V CAT IV.



The insulated female BNC (Bayonet Neill-Concelman) connector complies with the male BNC connectors of the worldwide most famous manufacturers.



Earth / ground marking. It reminds the 4 mm banana black male connection is mated to the « ground » outer contact of the BNC connector.

European Union marking.

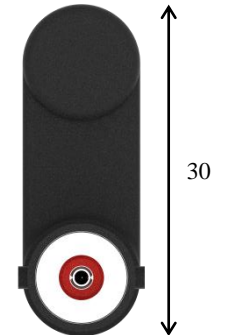
Voltage markings.

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



The 4 mm banana male connections comply with the 4 mm banana sockets of the worldwide most famous manufacturers.

10.4
(11.2 mm overall width including the two bayonet lugs.)



30

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Electrical safety

1000 V CAT II
600 V CAT III
300 V CAT IV

Grounded or floating ground.
("Floating ground" means the 4 mm banana male black plug can be connected to 1000 V CAT II / 600 V CAT III / 300 V CAT IV too.)

According to EN / IEC 61010-031:2015. 1000 V CAT II / 600 V CAT III / 300 V CAT IV, grounded or floating ground, reinforced insulation, 3 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 ;
- 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.

According to EN / IEC 60529 : IP2X (touchproof).

Operating temperature range

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

Conformity

- European Directive "Low Voltage Directive" 2014/35/UE.
- International / European standard EN / IEC 61010-031:2015.
- International / European standard EN / IEC 60529.
- European Directive "RoHS" 2011/65/EU.
- European REACH regulation n°1907 / 2006.

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 : nickel-coated brass.
Insulators and lantern contact springs : please contact us.

Weight

0.009 kg.

Origin

Designed and manufactured in France.

Reliability benchmark

Year of 1st placing on the market 2010.

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. 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.

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