

Black : 76-1656  
 Red : 76-1658  
 Blue : 76-1484  
 Green : 76-1486  
 Yellow : 76-1488



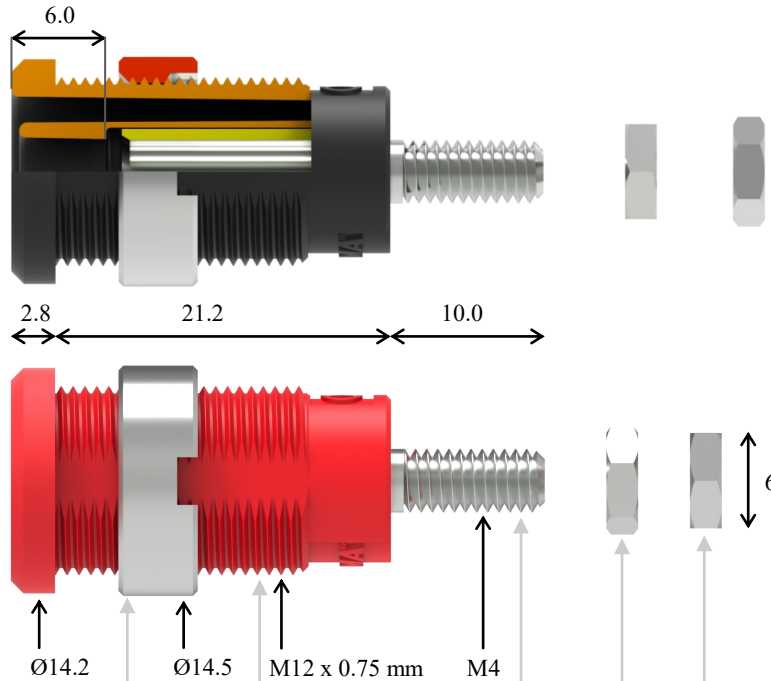
DATA SHEET (PAGE 1 OF 2).

Designation : 4 mm Banana (female) Jack (socket) w/ M4 Threaded Stud and Hex Nuts. Panel mounting, nut fixing.

Applications : repairing and making of panels or boxes providing heavy duty and safety 4 mm banana connections for power supplies, measurements, controls, tests, ...

IP2X touchproof protection and double port.

Thanks to the round nut, the socket can be removed from the panel to be repaired or re-used.



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

Round nut to attach the socket to the panel by screwing with the wrenches of part number 76-1706. Tightening torque, 2.3 N.m maxi. (at 20 °C).

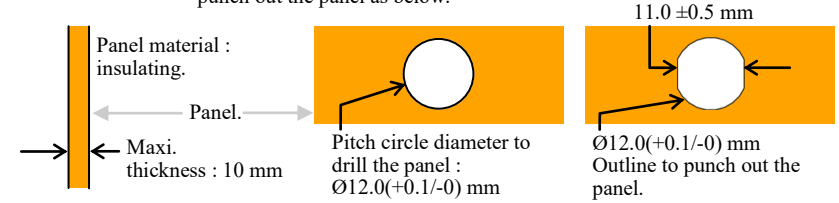
Flat surface for anti-rotation purpose (if needed).



Terminal : M4 threaded stud and 2 M4 nuts (complying with both lead-tin and lead-free tin soldering and 150 W maximum soldering iron). Screwing by open-end spanner SW6 (6 mm). Tightening torque, 0.3 N.m maxi. (at 20 °C).

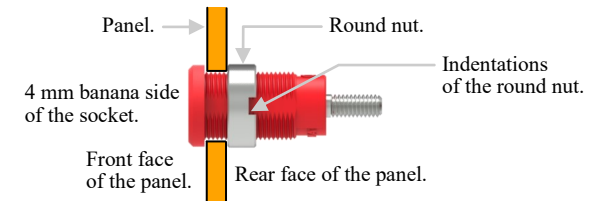
How to implement :

Step 1 of 6. I gather the set of wrenches part number 76-1706, an open-end spanner SW6 (6 mm), a panel with the specifications below, and a tool to drill or punch out the panel as below.

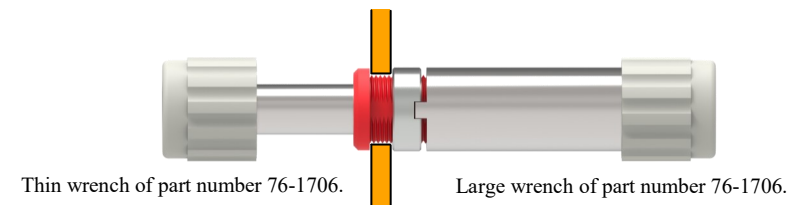


Step 2 of 6. I drill or punch out the panel as above with the tool.

Step 3 of 6. If the round nut is screwed on the socket then I remove it. I push the socket into the hole of the panel as shown below. With my hand I screw the round nut on the socket as shown below.



Step 4 of 6. I insert the thin wrench of part number 76-1706 into the 4 mm banana side of the socket as shown below. I insert the large wrench of part number 76-1706 into the indentations of the round nut as shown below.



Step 5 of 6. I hold one wrench with my hand and the other wrench with my other hand. I rotate to screw and tighten the round nut (2.3 N.m maxi. torque).

Step 6 of 6. Now the socket is attached to the panel. Depending on my application I achieve the connection with the M4 threaded stud by using the two M4 nuts provided and the open-end spanner SW6 (6 mm) (tightening torque, 0.3 N.m maxi.). Then the socket is ready to use.

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## DATA SHEET (PAGE 2 OF 2).

Designation : 4 mm Banana (female) Jack (socket) w/ M4 Threaded Stud and Hex Nuts. Panel mounting, nut fixing.



### Electrical safety

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

The design of the socket front face meets the requirements of EN / IEC 61010-031:2008 and the socket design is compatible with EN / IEC 61010-1:2010 for reinforced insulation at 1000 V CAT II / 1000 V CAT III / 600 V CAT IV and 36 A (at 40 °C).

These specifications come from the creepage distances, clearances, solid insulation, and CTI of the socket. And the considered building and implementation specifications are : insulating panel ; pollution degree of the micro-environment, 1 or 2 ; relative humidity of the micro-environment, 80 % maximum for temperatures up to 31 °C decreasing linearly to 50 % relative humidity at 40 °C ; temperature range of the micro-environment, +5 °C to +40 °C ; indoor use ; and altitude, 2000 m maximum. IP2X (touch-protected) protection on the front face according to EN / IEC 60529.

### Operating temperature range

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

### Protection against fire

The socket design is compatible with the EN / IEC 61010-031:2008 requirements of protection against the spread of fire and resistance to heat by its basic insulation. The socket design is compatible with the EN / IEC 61010-1:2010 requirements of eliminating / reducing the sources of ignition within the equipment by its basic insulation. The socket isn't designed to comply with the building of equipment containing or using flammable liquids and with circuits producing heat.

### Conformity

- European Directive "Low Voltage Directive" 2014/35/EU.
- European Directive "RoHS" 2011/65/EU.
- European REACH regulation n°1907 / 2006.
- International / European standard EN / IEC 61010-031:2008.
- International / European standard EN / IEC 61010-1:2010.
- International / European standard EN / IEC 60529.

### 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. Insulator : please contact us, CTI < 175.

### Colors

Black Red Yellow Green Blue White

### Weight

0.007 kg.

### Origin

Designed and manufactured in France.

### Reliability benchmark

Year of 1st placing on the market 1996.

### Packaging

One piece per bag (in one bag : 1 socket + 1 round nut + 2 M4 nuts).



## 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 60529:2001. The 2001 version of the European / international standard regarding the degrees of protection provided by enclosures.

EN / IEC 61010-1:2010. The latest version (in February 2012) of the European / international standard regarding the safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1: General requirements. Version year 2010.

EN / IEC 61010-031:2008. The latest version (in February 2012) of the 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. Version year 2008.

"LVD". European Directive 2006/95/EC on the harmonisation 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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