Black : 76-1668
Red : 76-1670
Blue : 76-1468
Green : 76-1470
Yellow : 76-1472

TENMA®

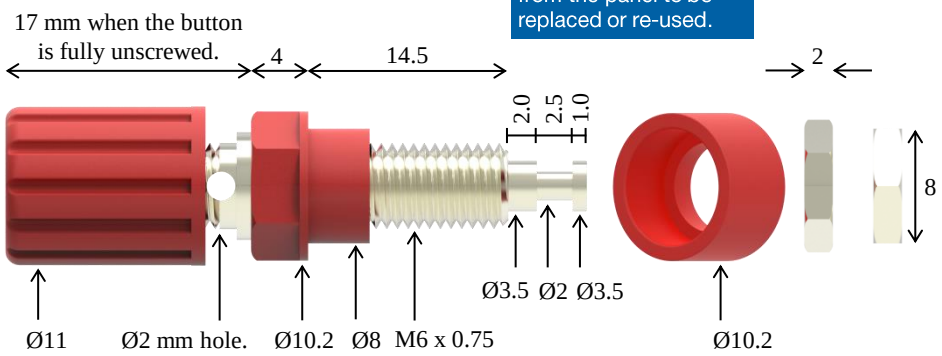
DATA SHEET (page 1 of 2).

Designation : 4 mm Banana (female) Jack (socket) w/ Solder Wire Attachment and M6 Threaded Stud and Hex Nuts. Quick Radial Wire Attachment (2 mm diameter Hole).

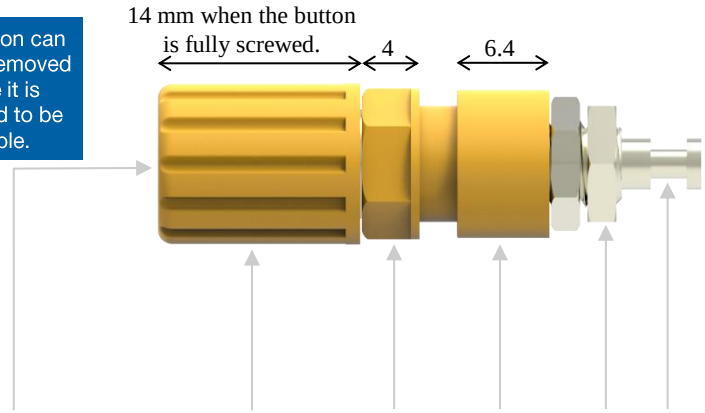
Applications : repairing or making of panels or boxes providing quick wire attachments and 4 mm banana connections for power supplies, measurements, controls, tests, ...

Thanks to the nuts, the socket can be removed from the panel to be replaced or re-used.

IP2X touchproof protection when the button is screwed fully.



The button can not be removed because it is designed to be unloosable.



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

The screwing button tightens the wire inserted into the radial Ø2 mm hole.

The front insulator and the rear insulating spacer make the socket compliant with conductive panels because they insulate the panel against the metal parts of the socket.

The terminal complies with usual 4 mm² - 6 mm² ring lug tightened between the two nuts. It offers solder wire attachment too with lead-tin or lead-free tin and 150 W maximum soldering iron.

How to use the wire attachment :

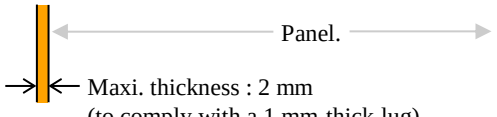
I gather a stranded or solid wire with the specifications below and a tool to strip the wire. I strip the end of the wire on 10 mm at least. I unscrew the button. I insert the wire into the radial Ø2 mm hole. I screw and tighten the button.

10 mm mini..

1.50 mm² maxi.
(approx. AWG16).

How to implement :

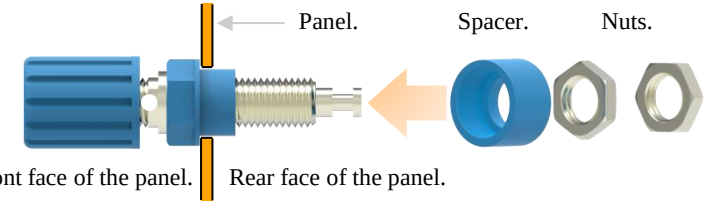
Step 1 of 5. I gather open-end spanners SW9 mm and SW8 mm, a panel with the specifications below, and a tool to drill the panel as below.



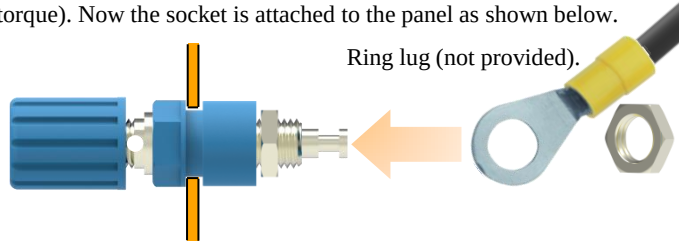
Pitch circle diameter to drill the panel : Ø8.0 (+0.1/-0) mm

Step 2 of 5. I drill the panel as above with the tool.

Step 3 of 5. If the nuts and the spacer are mounted on the socket then I remove them. I push the socket into the hole of the panel as shown below.



Step 4 of 5. I take care of the direction of the spacer (picture above) and I put it on the rear side of the socket. Then I put one of the two nuts on the rear side of the socket too. I hold the front hexagonal insulator with the spanner SW9, I hold the nut with the spanner SW8, then I screw and tighten it (2.3 N.m maxi. torque). Now the socket is attached to the panel as shown below.



Step 5 of 5. To connect the socket I can solder (150 Watt maxi. iron solder with lead-tin or lead-free tin) a wire on its terminal so I screw and tighten the other nut first (2.3 N.m maxi. torque) (it is a lock nut). Or I can attach a wire terminated by a usual ring lug (4 mm² - 6 mm² ring lug) so I put the ring lug (picture above) then I screw and tighten the other nut (2.3 N.m maxi. torque). Then the socket is ready to use.

Dimensions in millimeters.

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TENMA®

DATA SHEET (page 2 of 2).

Designation : 4 mm Banana (female) Jack (socket) w/ Solder Wire Attachment and M6 Threaded Stud and Hex Nuts. Quick Radial Wire Attachment (2 mm diameter Hole).

Electrical safety 33 V AC / 70 V DC	Very low voltages only : 33 V AC / 70 V DC, 36 A (at +40 °C).
Operating temperature range	-20 °C mini., +80 °C maxi. (please see above too).
Conformity	• 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 (or gold-coated) brass. Insulators : please contact us.
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 1980.
Packaging	One piece per bag (in one bag : 1 socket + 1 spacer + 2 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. 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.

Dimensions in millimeters.