Patent Claims (PCT Article 34)

1. Connector bridge for an electrical device connector (1) for connecting electrical devices, in particular household appliances, to a plug socket of an alternating current network, the device connector (1) being formed as a unit by the connector bridge which is connected to the end piece of a three-core connection cable for the device and which is extrusion-coated in an injection mould, and which is itself constructed from a dimensionally stable insulation member (2) for receiving and fixing a rectangular phase conductor pin (3b), neutral conductor pin (3c) and earth conductor pin (3a), the phase, neutral and earth conductor pins (3a, b, c) also being injection moulded in/on in the same operating step as the injection moulding of the insulation member (2) in openings of the insulation member (2) corresponding to the cross-section thereof, the phase, neutral and earth conductor pins (3a, b, c) projecting relative to the connector bridge and the device connector (1) to a sufficient extent to be introduced into the plug socket, the phase conductor pin (3b), neutral conductor pin (3c) and earth conductor pin (3a) each having inclined introduction members (5), the phase conductor pin (3b) and neutral conductor pin (3c) each having insulation (4) at the insulation member side and the phase conductor pin (3b), neutral conductor pin (3c) and earth conductor pin (3a) each being in the form of a folding pin which is drawn into its definitive spatial shape from an initially flat punched component comprising metal sheet (16), is folded and is filled with plastics material in its empty and intermediate spaces during the injection moulding process of the insulation member (2) in such a manner that, after the injection moulding process, the phase, neutral and earth conductor pins (3a, b, c) have the definitive contour thereof,

characterised in that,
after the connector bridge has been extrusion-coated, at the plug socket side all the surfaces of the phase, neutral and earth conductor pins (3a, b, c) produced in that manner, including the inclined introduction members (5), at least as far as the insulation (4) at the insulation member side comprise the metal sheet (16),
in that the phase, neutral and earth conductor pins (3b, c, a) have projections (7a) and cut-outs (7b) at the folding seams (6), with the projections (7a) coming to rest in a deformed state in the cut-outs (7b) during the folding operation and consequently allowing a positive-locking and non-positive-locking connection,
in that a large number of sheet metal strips (17) are punched out of the long metal sheet (16), with a web (18) remaining at the centre of the transverse axis and forming the connector-side end of the phase, neutral and earth conductor pins (3a, b, c) after the folding operation.

2. Connector bridge according to claim 1, characterised in that the flat punched component, from which the phase, neutral and earth conductor pins (3a, b, c) are drawn and folded into the definitive spatial shape thereof, is a long metal sheet (16) having the width (B) of double the length (L) of the phase, neutral and earth conductor pins (3a, b, c) before the punching and folding operation.

3. Connector bridge according to claim 2, characterised in that a conical hole which forms a rivet sleeve (9) after the folding operation is punched into the web (18) with a punching machine which tapers forwards.

4. Connector bridge according to either claim 2 or claim 3, characterised in that the phase, neutral and earth conductor pins (3b, c, a) are folded from the sheet metal pieces remaining between the punched-out sheet metal strips (17).

5. Connector bridge according to any one of the preceding claims, characterised in that elongate holes (12) which are positioned after the folding operation at the wide sides of the rectangular phase conductor pin (3b) or the neutral conductor pin (3c) are punched out of the flat punched component for the phase conductor pin (3b) or the neutral conductor pin (3c) in a mirror-symmetrical manner relative to the longitudinal axis of the phase conductor pin (3b) or the neutral conductor pin (3c).

6. Connector bridge according to any one of the preceding claims, characterised in that the phase conductor pin (3b) and the neutral conductor pin (3c) have lateral cut-outs (13).

7. Connector bridge according to any one of the preceding claims, characterised in that the phase conductor pin (3b) and the neutral conductor pin (3c) have an impression (14), preferably of from 0.5 mm to 0.3 mm, at least at one lateral flank.

8. Connector bridge according to any one of the preceding claims, characterised in that the phase, neutral and earth conductor pins (3b, c, a) each have a hollow rivet (9) at an end thereof at the insulation member side.

9. Connector bridge according to any one of the preceding claims, characterised in that the flat punched components for the phase, neutral and earth conductor pins (3b, c, a)

comprise electrically conductive material, preferably brass sheet.

10. Connector bridge according to any one of the preceding claims, characterised in that an electrical fuse is provided to prevent excessively high current flow.