

Title (en)
Plug for flat electrical cables.

Title (de)
Stecker für elektrische Flachkabel.

Title (fr)
Fiche pour câbles plats électriques.

Publication
EP 0141957 A2 19850522 (DE)

Application
EP 84110598 A 19840906

Priority
DE 3334615 A 19830924

Abstract (en)

1. Plug for flat electrical cables with several insulated conductors (32) arranged side by side in one plane in a common cable sheath (31), mainly for use in telecommunication engineering, with one housing (10, 20) possessing a duct (11) to accommodate the cable end (30) said duct (11) originating in a wide initial section (12) intended to locate the cable sheath (31), and tapering towards an end section (13), the inside width of this end section (13) being equal to the cross section of the insulated wires (32) with their conductors (34) - although stripped of the cable sheath - still carrying their full insulation (33), and said housing (10, 20) being equipped with penetration-type contacts (41) in the end section of the duct, which contacts are aligned with the still insulated wires (32), so that, when used, they will pierce the insulation (33) of the corresponding wire and penetrate to its conductor (34) with their cutting end (44), said cutting end being located inside the housing, and their other contact ends (42), located outside the housing (10, 20), are mounted in fixed contact points (48) in a standard uniform arrangement relative to each other, which is common to all plugs, and characterized in that the housing consists of a cover (10) accommodating the lead-in duct (11) on one hand, and of an insert (20) which carries the penetration-type contacts (41) and can be plugged into the cover (20) on the other ; that the end of the cover-side lead-in duct is divided into separate (15) holes (14) which accommodate the still insulated wires (32) of the cable individually ; that the cover (10), in alignment with the layout of the insulated conductor (34) in each hole (14), possesses several potential penetration points (49) for the cutting ends (44) of the penetration-type contacts, said penetration points pointing in the direction in which the insert is pushed in ; that the penetration-type contacts (41) consist of blades (41) bent to point in opposite directions in the form of a "Z", so that the legs of this "Z" form the cutting ends (44) on one side and the contact ends (42) on the other, and the blades can in each case be selected (according to the individual lateral offset (59) of the fixed contact positions (38) in the insert (20) with respect to the desired penetration positions (49) in the cover) from a number of blades (41) in which the "Z" angle offset is more or less pronounced ; and that the blades (41) selected can be interchangeably placed into the insert (20) with that leg of the "Z" which forms the contact end while the Z-legs which constitute the cutting end (44) will form a pattern in the insert (20) which corresponds to the type of blades selected - and form one constructional contact assembly unit with the insert (20) with which they can be forced into the selected penetration points (49) in the cover (10).

Abstract (de)

Die Erfindung richtet sich auf einen Stecker für elektrische Flachkabel, wo die von einem gemeinsamen Kabelmantel umschlossenen die zu kontaktierenden Leiter aufweisenden Adern in einer Ebene nebeneinanderliegen und nicht von ihrer Isolation befreit zu werden brauchen. Um eine allen Bedürfnissen genügende beliebige Kontaktierung der dabei verwendeten Durchdringungskontakte zu erhalten, wird vorgeschlagen, das Steckergehäuse aus einer einen Aufnahmekanal für das Kabel enthaltenden Kappe einerseits und aus einem die Durchdringungskontakte haltenden Einsatz andererseits aufzubauen. Der Aufnahmekanal geht in getrennte Bohrungen über, wo die nicht abisolierten Adern des Kabels einzeln aufgenommen sind, während die Durchdringungskontakte aus als Z-förmig verkröpfte Messer ausgebildet sind, deren einer Z-Schenkel die aussen freiliegenden Kontaktenden und deren anderer Z-Schenkel das Schneidende des Kontakts bildet. Durch Auswahl von solchen Messern aus einer Vielzahl unterschiedlich stark Z-verkröpfter Messer wird sichergestellt, dass zwar die äusseren Kontaktplätze des Steckers feststehen, aber die Schneidenden an unterschiedlichen Durchstossplätzen in der Kappe wirksam werden, die mit der Lage der Adern-Leiter in jeder der kappenseitigen Bohrungen ausgerichtet sind.

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IPC 8 full level
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CPC (source: EP)
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Cited by
DE3901294A1; DE3901294C2; DE4325952A1; US7862388B2; WO2006120622A1; WO8603626A1; US7901254B2; US8210883B2

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