

Title (en)
Terminal block with insulation displacing contacts and connection device

Title (de)
Reihenklemme mit Schneidkontakten und Anschlussvorrichtung

Title (fr)
Barette à bornes avec contacts autodénudants et dispositif de connexion

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Application
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Abstract (en)
A terminal block assembly for connecting an insulated electrical conductor with a stationary electrical contact, has; <??>(i) a hollow terminal block made of synthetic plastic insulating material and having chamber(s); <??>(ii) a bus bar mounted within the block; <??>(iii) a horizontal resilient electrical contact supported by the bar within the chamber; <??>(iv) a generally U-shaped resilient support spring; and <??>(v) an actuator mounted for movement within the chamber. <??>A terminal block assembly (2) for connecting an insulated electrical conductor with a stationary electrical contact (15), comprises: <??>(a) a hollow terminal block (4) formed of synthetic plastic insulating material and containing chamber(s); <??>(b) a bus bar (14) mounted within the terminal block; <??>(c) a horizontal resilient electrical contact supported by the bus bar within the chamber; <??>(d) a generally U-shaped resilient support spring (22) mounted within the terminal block; and <??>(e) an actuator (26) mounted for movement within the terminal block chamber between engaged and disengaged positions. <??>The contact has a bifurcated end portion provided with a pair of knife edges (16) separated by a slit that extends within a conductor contact portion of the stationary contact. The support spring includes a horizontal base portion that extends in spaced relation below and parallel with the stationary contact; and a pair of vertical leg portions (54) extending upwardly on opposite sides of, and in lateral supporting engagement with, the stationary contact conductor contact portion. The actuator contains a vertical bore for receiving an end portion of the insulated conductor when the actuator is in the disengaged position. The stationary contact is supported within the chamber that as the actuator is displaced toward the engaged position the conductor is laterally supported by the support spring leg portions as the conductor is progressively introduced within the stationary contact slit to cause the knife edges to penetrate the conductor insulation and to come into electrical contact with the stationary contact.

Abstract (de)
Eine Reihenklemme, mit einem Isolierstoffgehäuse (4), wenigstens einer im Isolierstoffgehäuse (4) angeordneten Anschlußvorrichtung (10, 12, 72, 74) für mindestens einen elektrischen Leiter (36), der wenigstens eine Leitungsader und eine die Leitungsader umgebende Isolierung aufweist, wobei die Anschlußvorrichtung (10, 12, 72, 74) eine Kontaktfeder (15) mit einer Kontaktschneide (16) zum Auftrennen der Isolierung des elektrischen Leiters (36) und einen Kontaktierungsbereich (20) zur Kontaktierung der wenigstens einen Leitungsader (14, 78) aufweist, und wobei jeder Anschlußvorrichtung (10, 12, 72, 74) eine die Kontaktfedern (15) einfassende, im wesentlichen U-förmig ausgebildeten Kraftfeder (22) zugeordnet ist, welche im wesentlichen flächig ausgebildete Federschenkel (24) aufweist, wobei die im wesentlichen flächigen Federschenkel (24) im wesentlichen senkrecht zu der Kontaktfeder (15) verlaufen und diese entlang des Kontaktierungsbereiches (20) umgreifen, zeichnet sich dadurch aus, daß die Kraftfeder (22) wenigstens abschnittsweise beide Längsschenkel eines U-förmigen Abschnittes einfaßt, welchen die Stromschiene (14, 78) mit der Kontaktfeder (15) ausbildet. <IMAGE>

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