Title (en)

ELECTRIC CIRCUIT CONNECTING DEVICES

Publication

EP 0069212 B1 19850904 (EN)

Application

EP 82103885 A 19820505

Priority

US 27893181 A 19810630

Abstract (en)

[origin: EP0069212A1] A connecting device for one or a large multiple of electric circuits comprises two dissimilar cooperating parts. Each circuit line to be interconnected requires one electrically conductive prong (10) and one stand of electric conductors (12) arranged substantially parallel to each other for permitting the prong (10) to be inserted between at least two of the conductors (12) and forcing a wiping contact between the prong (10) and the conductors (12). On inserting the prong between the conductors wiping contact is made between the conductors and the prong along the longitudinal axis of the two components. The required force for insertion is minimized in a structural relationship wherein the conductors are substantially elongated cylinders of conductive material and the prong is a figure of revolution, having a surface lying along a line defined by the equation of a uniformly loaded cantilever beam as represented by one of the conductors in wiping contact with the prong. This can be expressed by the equation Y = (WX<2>/24EI) (X<2> - 4LX + 6L<2>) where X is the dimension along said longitudinal axis, Y is the distance from that axis to a point lying on the curve, W is the constant force per unit length along said prong, E is Young's Modulus of said conductors, I is the sectional moment of inertia of said conductors, and L is the length of said conductors alongside said prong.

IPC 1-7

H01R 13/33

IPC 8 full level

H01R 13/02 (2006.01); **H01R 13/33** (2006.01)

CPC (source: EP)

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Cited by

DE102009032103A1; EP0546805A1; EP0205385A1; FR2583254A1; US4746300A; USRE39458E; US8414321B2

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