

Title (en)
Solderless Right Angle Coaxial Connector

Title (de)
Lötfreier rechtwinkliger Koaxialverbinder

Title (fr)
Connecteur coaxial à angle droit sans soudure

Publication
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Application
EP 07102695 A 20070220

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Abstract (en)

This invention relates to electrical conductor terminating arrangements which are especially, but not exclusively, applicable to the termination of electrical conductors in electrical connectors of the coaxial type. The invention is especially directed to an improved conductor terminating arrangement in a coaxial connector of the kind facilitating the ready and effective connection of the usual central conductor of an incoming coaxial cable to contact means (e.g. socket contact) of the connector without the need for crimping and/or other tools. According to the present invention as broadly conceived an electrical conductor terminating arrangement comprises electrically conductive contact-making means which makes good electrical contact with an electrical conductor in response to non-axial pressure displacement over the contact making means of displaceable means to exert a radial force on the contact-making means and to co-operate therewith for providing ongoing pressure engagement between the contact making means and the electrical conductor without the need for the continuance of non-axial pressure on the displaceable means after a predetermined non-axial displacement of the displaceable means. In carrying out the present invention the displaceable means may comprise a resilient flat or formed clip member which when displaced exerts an inward radial force on the contact-making means located within the clip member and which co-operates with the contact-making means positioned over the electrical conductor to provide the aforesaid ongoing pressure engagement with the conductor. A resilient clip member may be provided by a formed or flat metal clip. The contact-making means of the conductor terminating arrangement may comprise a compressible clamping element adapted to fit over the electrical conductor. The compressible clamping element may comprise a split tubular metal part into one end of which the conductor extends and which is adapted to be radially compressed by the contact-making means to make good electrical contact with the conductor. The split tubular metal part may be formed integrally with contact means (e.g. pin or socket contact) of the terminating arrangement provided at the end thereof remote from the end at which the conductor enters the tubular compressible clamping element. In accordance with one especially contemplated application of the present invention, a conductor terminating arrangement of the foregoing construction as broadly conceived is provided as part of a coaxial connector comprising a tubular body structure having a non-axial extending bore therein for receiving an incoming coaxial cable and for accommodating the electrically conductive contact-making means of the terminating arrangement located adjacent a part of the cable within the tubular body structure and electrically coupled with connector contact means (e.g. pin contact), the displaceable means of the arrangement, in response to the predetermined non-axial displacement thereof exerting a radial force on the contact making means with which it co-operates to provide ongoing pressure engagement between the contact-making means and the central conductor of the coaxial cable to ensure good electrical contact there between without the need for the continuance of any axially applied force to the displaceable means.

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Citation (applicant)
• JP H05152037 A 19930618 - MURATA MANUFACTURING CO
• FR 2576154 A1 19860718 - ARNOULD FABR APPAREILLAGES ELE [FR]
• US 5791937 A 19980811 - KITAJIMA YASUHIRO [JP], et al

Citation (search report)
• [A] JP H05152037 A 19930618 - MURATA MANUFACTURING CO
• [A] FR 2576154 A1 19860718 - ARNOULD FABR APPAREILLAGES ELE [FR]
• [A] US 5791937 A 19980811 - KITAJIMA YASUHIRO [JP], et al

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