

Title (en)
Connecting device for multiconductor cables

Title (de)
Anschlussvorrichtung für Mehrleiterkabel

Title (fr)
Appareil de connexion pour câbles multiconducteur

Publication
EP 1855356 A1 20071114 (DE)

Application
EP 07105048 A 20070327

Priority
DE 202006007510 U 20060511

Abstract (en)
A connector arrangement comprises a displacing mechanism (31, 40) for displacing an actuator plate (27) downwardly to press cable conductors into insulation-piercing engagement with the associated respective electrical contacts (9). The displacing mechanism includes a wedge (30) between the actuator plate and a housing cover (28) and operable by the actuator plate during the initial displacement of the cover from a partially displaced position from the base toward a position over the base to displace the cable downwardly into insulation-piercing engagement with contact knife edges. A connector arrangement for connecting an insulated conductor (3) of a flat multi-conductor cable (2) with a tapped-off branch conductor comprises a housing base (6) including a rectangular base (8). Insulation-piercing electrical contacts carried by the base extend upwardly from the base upper surface. The upper extremities of the contacts have knife edges. A horizontal actuator plate is connected with the base for displacement between an upper position above the contacts toward a lower position adjacent the contacts. The spacing distance between the actuator plate and the contacts is greater than the thickness of the flat cable to permit the longitudinal horizontal introduction of the flat cable between the actuator plate and the contacts with the conductors of the cables above the contacts, respectively. A displacing mechanism for displacing the actuator plate downwardly to press the cable conductors into insulation-piercing engagement with the associated respective contacts includes a housing cover arranged horizontally above and spaced from the actuator plate. A connector connects the cover for longitudinal sliding displacement relative to the base between a partially displaced position from the base and a position over the base. A wedge between the actuator plate and the cover is operable by the actuator plate during the initial displacement of the cover from the partially displaced position to the position over the base to displace the cable downwardly into insulation-piercing engagement with the contact knife edges. Branch conductors are connected with the contacts, respectively.

Abstract (de)
Anschlussvorrichtung zur Kontaktierung von Leitern eines Kabels, insbesondere eines durchgehenden Flachkabels (2), das mehrere Leiter (3) aufweist, die ggf. jeweils von einer Isolierung umgeben und in einen übergeordneten Kabelmantel (4) eingebettet sind, mit folgenden Merkmalen: ein mehrteiliges Gehäuse (5), welches einen Grundabschnitt (6) zur Aufnahme des Kabels (2) und einen Deckelabschnitt (7) umfasst, an/in dem isolationsdurchdringende Kontakte, insbesondere Piercingkontakte (9), angeordnet sind, gekennzeichnet durch wenigstens eine oder mehrere Keilanordnung(en) (30, 36, 37).

IPC 8 full level
H01R 12/08 (2006.01)

CPC (source: EP US)
H01R 12/67 (2013.01 - EP US); **H01R 12/772** (2013.01 - EP US); **H01R 4/2412** (2013.01 - EP US)

Citation (search report)

- [XAY] DE 4436829 A1 19960418 - SIEMENS AG [DE]
- [XY] US 5409396 A 19950425 - BOWEN DAVID C [US], et al
- [A] US 2929043 A 19600315 - PHILLIPS JR SAMUEL A
- [YA] NL 7208017 A 19721213
- [Y] US 6386901 B1 20020514 - CALDWELL BARRY [US]
- [X] US 6566607 B1 20030520 - WALLING JOERG-HEIN [CA]
- [X] WO 0057432 A1 20000928 - CABLE DESIGN TECHNOLOGIES INC [US]
- [A] EP 1276173 A2 20030115 - DAETWYLER AG [CH]

Cited by
EP2139074A2; DE202008008696U1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA HR MK YU

DOCDB simple family (publication)
US 2007264866 A1 20071115; US 7347716 B2 20080325; AT E497271 T1 20110215; DE 202006007510 U1 20070913;
DE 502007006346 D1 20110310; EP 1855356 A1 20071114; EP 1855356 B1 20110126; ES 2360372 T3 20110603; JP 2007305588 A 20071122;
JP 4838755 B2 20111214

DOCDB simple family (application)
US 79921007 A 20070501; AT 07105048 T 20070327; DE 202006007510 U 20060511; DE 502007006346 T 20070327;
EP 07105048 A 20070327; ES 07105048 T 20070327; JP 2007127182 A 20070511