

Title (en)
ELECTRICAL CONNECTOR WITH SEALING

Title (de)
ELEKTRISCHER VERBINDER MIT DICHTUNG

Title (fr)
CONNECTEUR ÉLECTRIQUE AVEC ÉTANCHÉITÉ

Publication
EP 4156416 A1 20230329 (EN)

Application
EP 22197049 A 20220922

Priority
DE 202021105126 U 20210923

Abstract (en)
The disclosure relates to Electrical connector for electrically connecting at least two electrical cables (18) without using tools, comprising a housing (1); at least two insertion channels (2), arranged in the housing (1) on a first side, for inserting bare metal ends (19) of the electrical cables (18) into the housing (1) along an insertion direction (E); a metal clamping unit (17), arranged in the housing (1), for clamping the bare metal ends (19) inserted into the insertion channels (2) and for electrically coupling the metal ends (19) to one another; and a test channel (3), arranged in the housing (1) on a second side, for inserting a test finger; a housing cover (4) made of a pliable plastic, which is cast with the housing (1); wherein the housing cover (4) is formed in one piece with a cover strip (5), which extends from a first end (6) of the cover strip (5) to a second end (7) of the cover strip (5), wherein: the cover strip (5) merges into the housing cover (4) at the first end (6), and between the first end (6) and the second end (7) the cover strip (5) has a cap unit (8) for plugging into the insertion channels (2) and a stopper unit (9) for plugging into the test channel (3), and in an end region comprising the second end (7) the cover strip (5) has a hook unit (10) for hooking the cover strip (5) onto an associated hook counterpart (16) of the electrical connector in a sealing position, wherein in the sealing position the cap unit (8) is plugged into the insertion channels (2) and the stopper unit (9) is plugged into the test channel (3) in order to reliably seal electrical connections between two or more electrical cables (18) with little effort, even in accordance with high IP protection classes, and especially against water or moisture.

IPC 8 full level
H01R 4/22 (2006.01); **H01R 4/70** (2006.01); **H01R 13/52** (2006.01)

CPC (source: EP)
H01R 4/22 (2013.01); **H01R 4/70** (2013.01); **H01R 13/5213** (2013.01)

Citation (applicant)
• EP 2795737 A1 20141029 - DELPHI INT OPERATIONS LUX SRL [LU]
• US 10777934 B2 20200915 - YI CHONG HUN [US], et al

Citation (search report)
• [XAI] US 2007281538 A1 20071206 - ELLIOTT KENNETH C [US], et al
• [A] US 6854996 B2 20050215 - YAWORSKI HARRY GEORGE [US], et al
• [A] US 2019356064 A1 20191121 - FU XIAOZHI [CN], et al

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
DE 202021105126 U1 20230109; EP 4156416 A1 20230329

DOCDB simple family (application)
DE 202021105126 U 20210923; EP 22197049 A 20220922