



164164

Claims:

1. An arrangement for fixing and contacting a switching assembly, having contact areas, on a substrate, comprising
- signal lines arranged on the substrate and
 - 5 - a plug-in mount, having at least one receiving device and contact elements, for being loaded with a switching assembly and for mounting on the substrate, wherein
 - the signal lines have contact zones on a surface of the substrate facing the plug-in mount,
 - 10 - in an unloaded state of the arrangement, without a switching assembly arranged in the receiving device, at least one contact element is electrically isolated from the contact zones and
 - in a loaded state of the arrangement, with a switching assembly arranged in the receiving device, the at least one contact element is electrically
 - 15 contacted in a first contact region with at least one of the contact zones on the substrate and in a second contact region with at least one contact area on the switching assembly, wherein the contact elements
 - are formed as contact spring elements which are relaxed in the unloaded state and tensioned in the loaded state and are respectively elastically
 - 20 deformable in a direction perpendicular to the substrate and parallel to the substrate and
 - in the unloaded state of the plug-in mount, have a minimal extent in the direction perpendicular to the substrate and a maximum extent in the direction parallel to the substrate and



G00002

- in the loaded state have a maximum extent in the direction perpendicular to the substrate and a minimal extent in the direction parallel to the substrate.
2. The arrangement as claimed in claim 1, wherein the contact elements are
- 5 respectively formed substantially elliptically, are fixed at an anchoring point to the inner sides of the receiving device and are arranged substantially perpendicular to the surfaces of the substrate and of the loaded switching assembly.
3. An arrangement for fixing and contacting a switching assembly, having contact
- 10 areas, on a substrate, comprising
- signal lines arranged on the substrate and
 - a plug-in mount, having at least one receiving device and contact elements, for being loaded with a switching assembly and for mounting on the substrate, wherein
 - 15 - the signal lines have contact zones on a surface of the substrate facing the plug-in mount,
 - in an unloaded state of the arrangement, without a switching assembly arranged in the receiving device, at least one contact element is electrically isolated from the contact zones and
 - 20 - in a loaded state of the arrangement, with a switching assembly arranged in the receiving device, the at least one contact element is electrically contacted in a first contact region with at least one of the contact zones on the substrate and in a second contact region with at least one contact area on the switching assembly, wherein

- the first and second contact regions of a contact element are respectively arranged such that they can be pivoted about a common axis of rotation and offset with respect to one another,
 - in the unloaded state at least one of the contact regions or a mechanical lever device is located at least partly in a feed path of the switching assembly and
 - can be pivoted by feeding a switching assembly into the receiving device.
4. The arrangement as claimed in either of claims 1 to 3, wherein the plug-in mount has a multiplicity of contact elements.
5. The arrangement as claimed in one of claims 1 to 4, wherein the plug-in mount has an insulating body, the receiving device is formed as a groove in the insulating body and the contact elements are arranged on at least one inner surface of the receiving device and lying opposite contact areas arranged on at least one edge of the switching assembly.
6. The arrangement as claimed in claim 5, wherein the contact elements are arranged on two inner surfaces of the receiving device lying opposite one another.
7. The arrangement as claimed in one of claims 1 to 6, wherein the contact elements are arranged in the plug-in mount in such a way that they are displaceable at least in a direction perpendicular to the substrate and are located at a point remote from the substrate in the unloaded state and at a point near the substrate in the loaded state.
8. The arrangement as claimed in one of claims 1 to 7, wherein

- at least one signal line on the substrate has an interruption point and two partial contact zones, which are arranged on either side of the interruption point, a first partial contact zone being oriented toward a control module, and
 - 5 - in the loaded state, the two partial contact zones of the signal line are respectively electrically connected to one another by means of the first contact region of the contact element corresponding to the signal line.
9. The arrangement as claimed in claim 8, wherein the at least one contact element has a third contact region and provided on the surface of the substrate is at least
- 10 one terminating zone, connected in an electrically conducting manner to a termination; in the unloaded state the terminating zone is connected in an electrically conducting manner to the first partial contact zone by means of the third contact region and in the loaded state the terminating zone is electrically isolated from the first partial zone.
- 15 10. The arrangement as claimed in one of claims 1 to 9, wherein the contact zones or the partial contact zones and the terminating zones have a greater transverse extent than the signal lines.
11. The arrangement as claimed in one of claims 1 to 10, wherein the contact zones or the partial contact zones and the terminating zones consist of a gold alloy or
- 20 are coated with a gold alloy.
12. A plug-in mount for fixing and contacting a switching assembly on a substrate, having at least one receiving device for a switching assembly and contact elements, which comprises at least one of the features of a plug-in mount according to one of the arrangements as claimed in one of claims 1 to 8.

13. A contact element for a plug-in mount for fixing and contacting a switching assembly on a substrate, which comprises at least one of the features of a contact element according to one of the arrangements as claimed in one of claims 1 to 8.