

Claims

1. A cannula (1), comprising:

- a cannula body having a cannula tube (11) and a body part (10) attached to the proximal end of the cannula tube (11),
- a control clip (30) having a mounting body (31) with at least one control element (35, 36), wherein the at least one control element electrically or mechanically controls all functions of the cannula,

wherein all functions of the cannula comprises:

supply of liquids and/or removal of liquids;

injection and/or aspiration;

provision of stimulation impulses; and/or

guidance of the cannula or positioning of the distal end of the cannula tube at a nerve,

- said control clip (30) being attachable laterally to the body part to form a first configuration (I);

characterized in that

a contact clip (20) is provided, and in that the contact clip (20) has at least one mounting part (21) with at least one electrical contact (25), and in that the contact clip (20) is attachable to the side of the body part (10) to form a second configuration (II) and in that the electrical contact (25) in the second configuration (II) establishes an electrical connection between a stimulation lead (29) and an electrically conductive wire of the cannula tube (11) in the region of the body part (10).

2. The cannula (1) according to claim 1, characterized in that the mounting part (21) of the contact clip (20) has at least one pair of resilient latching arms (22) embracing the body part (10) for establishing a latching connection in the second configuration (II).

3. The cannula (1) according to any one of the preceding claims, characterized in that the electrical contact engages a recess (14) of the body part (10) and electrically contacts the cannula tube (11) in the second configuration (II).

4. The cannula (1) according to any one of the preceding claims, characterized in that the electrical contact (25) has an insulation displacement contact that is pressed onto the cannula tube (11).

5. The cannula (1) according to any one of the preceding claims, characterized in that the electrical contact (25) has a spring tab (26) which rests on the cannula tube (11) in the recess (14) of the body part (10).

6. The cannula (1) according to any one of the preceding claims, characterized in that the contact clip (20) has a connector (27) that can establish an electrically detachable connection to the stimulation cable (29).

7. The cannula (1) according to any one of the preceding claims,
characterized in that
the electrical contact (25) has a spring tab (26) for forming a clamping contact with the electrical connector.

8. The cannula (1) according to any one of the preceding claims,
characterized in that
the at least one control element (35, 36) is an electrical control element and connected with a control line (39).

9. The cannula (1) according to any one of the preceding claims,
characterized in that
the control clip (30) comprises at least two control elements (35, 36).

10. The cannula (1) according to any one of the preceding claims,
characterized in that
the mounting body (31) of the control clip (30) comprises at least two latching arms (32) embracing the body part (10) and/or the mounting part (21) of the contact clip (20).

11. The cannula (1) according to any one of the preceding claims,
characterized in that
the connection for introducing the liquid is attached coaxially on the body part to the cannula tube.

12. The cannula (1) according to claim 11, characterized in that the connection is formed with an injection tube (19) inserted in the body part (10).

13. The cannula (1) according to any one of the preceding claims, characterized in that the mounting body (31) surrounds the at least one control element (35, 36), and in that the at least one control element (35, 36) is operable from the side facing away from the body part (11).

14. The cannula (1) according to any one of the preceding claims, characterized in that the mounting body is deformable on the side facing away from the body part (10) for operating the control element (35, 36) and/or in that the mounting body (31) on the side facing away from the body part (10) for operating the control element (35, 36) is made of a second electrically insulating plastic which is easily deformable, preferably silicone.

15. The cannula (1) according to any one of the preceding claims, characterized in that upon operating the control element (35, 36) a haptic feedback is generated, in particular by a snap dome.

16. The cannula (1) according to any one of the preceding claims,
characterized in that
the at least one control element (35, 36) comprises an
electrically capacitive switch and/or an electrically inductive
switch.

17. The cannula (1) according to any one of the preceding claims,
characterized in that
the body part (10) and/or the mounting part (21) of the contact
clip (20) and/or the mounting body (31) of the control clip (30)
are made of an electrically insulating plastic.